The Ohio State University

(A Component Unit of the State of Ohio)

EIN: 31-6025986

Financial Statements as of and for the years ended June 30, 2022 and 2021 and Report on Federal Financial Assistance Programs in Accordance with the OMB Uniform Guidance for the year ended June 30, 2022



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Board of Trustees The Ohio State University 2040 Blankenship Hall 901 Woody Hayes Drive Columbus, Ohio 43210

We have reviewed the *Independent Auditors' Report* of The Ohio State University, Franklin County, prepared by KPMG LLP, for the audit period July 1, 2021 through June 30, 2022. Based upon this review, we have accepted these reports in lieu of the audit required by Section 117.11, Revised Code. The Auditor of State did not audit the accompanying financial statements and, accordingly, we are unable to express, and do not express an opinion on them.

Our review was made in reference to the applicable sections of legislative criteria, as reflected by the Ohio Constitution, and the Revised Code, policies, procedures and guidelines of the Auditor of State, regulations and grant requirements. The Ohio State University is responsible for compliance with these laws and regulations.

Keith Faber Auditor of State Columbus, Ohio

May 10, 2023



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Independent Auditors' Report

The Board of Trustees
The Ohio State University:

Report on the Audit of the Financial Statements

Opinions

We have audited the financial statements of the business-type activities and the aggregate discretely presented component units of The Ohio State University (the University), a component unit of the State of Ohio, as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements as listed in the table of contents.

In our opinion, the accompanying financial statements referred to above present fairly, in all material respects, the respective financial position of the business-type activities and the aggregate discretely presented component units of the University, as of June 30, 2022, and the respective changes in financial position and cash flows thereof for the year then ended in accordance with U.S. generally accepted accounting principles.

Basis for Opinions

We conducted our audit in accordance with auditing standards generally accepted in the United States of America (GAAS) and the standards applicable to financial audits contained in *Government Auditing Standards*, issued by the Comptroller General of the United States. Our responsibilities under those standards are further described in the Auditors' Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinions.

Emphasis of Matter

As discussed in note 1 to the financial statements, in 2022, the University adopted Governmental Accounting Standards Board Statement No. 87, *Leases* (GASB 87). Our opinion is not modified with respect to this matter.

Other Matters

The financial statements of the University as of and for the year June 30, 2021 were audited by other auditors, who expressed an unmodified opinion on those statements on November 19, 2021.

As part of our audit of the 2022 financial statements, we also audited the adjustments described in Note 1 that were applied to restate the 2021 financial statements for the adoption of GASB 87 in 2022. In our opinion, such adjustments are appropriate and have been properly applied. We were not engaged to audit, review, or apply any procedures to the 2021 financial statements of the University other than with respect to the adjustments, and, accordingly, we do not express an opinion or any other form of assurance on the 2021 financial statements as a whole.



Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with U.S. generally accepted accounting principles, and for the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for twelve months beyond the financial statement date, including any currently known information that may raise substantial doubt shortly thereafter.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinions. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS and *Government Auditing Standards* will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS and Government Auditing Standards, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the University's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control related matters that we identified during the audit.



Required Supplementary Information

U.S. generally accepted accounting principles require that the accompanying management's discussion and analysis, schedule of the University's proportionate shares of STRS-Ohio and OPERS net pension liabilities, schedule of the University pension contributions to STRS-Ohio and OPERS, and schedule of the University' proportionate shares of STRS-Ohio and OPERS net OPEB liabilities be presented to supplement the basic financial statements. Such information is the responsibility of management and, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with GAAS, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Other Information

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the University's basic financial statements for the year ended June 30, 2022. The supplementary information on the long-term investment pool for the year ended June 30, 2022 is presented for purposes of additional analysis and is not a required part of the basic financial statements. Such information has not been subjected to auditing procedures applied in the audit of the basic financial statements, and, accordingly, we do not express an opinion or any form of assurance thereon.

Other Reporting Required by Government Auditing Standards

In accordance with *Government Auditing Standards*, we have also issued our report dated November 17, 2022, on our consideration of the University's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is solely to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the University's internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the University's internal control over financial reporting and compliance.

KPMG LLP

Columbus, Ohio November 17, 2022

Management's Discussion and Analysis (Unaudited)

The following Management's Discussion and Analysis, or MD&A, provides an overview of the financial position and activities of The Ohio State University (the "university") for the year ended June 30, 2022, with comparative information for the years ended June 30, 2021 and June 30, 2020. We encourage you to read this MD&A section in conjunction with the audited financial statements and footnotes appearing in this report.

About The Ohio State University

The Ohio State University is the State of Ohio's flagship research institution and one of the largest universities in the United States of America, with over 67,000 students, 7,800 faculty members and 27,000 staff members. Founded in 1870 under the Morrill Land Grant Act, the university – which was originally known as the Ohio Agricultural and Mechanical College -- has grown over the years into a comprehensive public institution of higher learning, with over 200 undergraduate majors, 162 master's degree programs, 104 doctoral programs and nine professional degree programs.

The university is governed by a board of trustees who are responsible for oversight of academic programs, budgets, general administration, and employment of faculty and staff. The university's 15 colleges, four regional campuses, the Wexner Medical Center and various academic support units operate largely on a decentralized basis. The Board approves annual budgets for university operations, but these budgets are managed at the college and department level.

The Ohio State University Wexner Medical Center ("the Medical Center") is one of the largest and most diverse academic medical centers in the country and the only academic medical center in central Ohio. As a part of the Wexner Medical Center, the Health System operates under the governance of The Ohio State University Board of Trustees and is comprised of seven hospitals and a network of ambulatory care locations. The Health System provides a full spectrum of services from primary to quaternary specialized care. Key clinical care locations and facilities of the Health System include:

- University Hospital: the Wexner Medical Center's flagship hospital is a leader in
 multiple specialties including organ and tissue transplantation, women and infants,
 digestive diseases, bariatric surgery and minimally invasive surgery. In addition to
 having a Level I Trauma Center as designated by the American College of
 Surgeons, University Hospital is also home to a Level III Neonatal Intensive Care
 Unit, central Ohio's only adult burn center and the only adult solid organ transplant
 program in central Ohio.
- Arthur G. James Cancer Hospital and Solove Research Institute ("The James"): the only free-standing cancer hospital in central Ohio and the first in the Midwest, the Arthur G. James Cancer Hospital and Richard J. Solove Research Institute is an international leader in cancer prevention, detection and treatment. The James is one of only 51 comprehensive cancer centers designated by the National Cancer Institute (NCI) and one of only a few institutions nationally funded by the NCI to conduct both phase I and phase II clinical trials on novel anticancer agents sponsored by the NCI.

- Richard M. Ross Heart Hospital ("The Ross"): is dedicated to advancing the field of cardiovascular medicine and surgery. The Ross Heart Hospital offers comprehensive heart and vascular care spanning every specialty from open heart surgery to electrophysiology, vascular surgery, advanced heart failure care and emergency cardiac care. The Ross is one of the nation's few free-standing facilities devoted entirely to the research of diseases affecting the heart, lungs and blood vessels.
- Harding Hospital: offers counseling services along with the most comprehensive inpatient and outpatient mental health and behavioral health services in central Ohio. Programs are available for adolescents, adults and older adults with complex psychiatric disorders. Ohio State Harding Hospital's team includes psychiatrists, psychologists, social workers, registered nurses, occupational therapists, recreational therapists, chaplains and licensed counselors.
- East Hospital: blends academic medicine with a community-based setting. East Hospital offers renowned services in orthopedic care, emergency services, cancer care, addiction services, ear, nose and throat care, heart care, radiology and imaging services, rehabilitation and wound healing. Additionally, patients have access to central Ohio's leading alcohol and drug addiction recovery services, digestive disease treatment, a full range of diagnostic services, a sleep disorders center and outpatient oncology services.
- Dodd Hall: home to Ohio State's nationally recognized and accredited rehabilitation inpatient program, specializing in stroke, brain and spinal cord rehabilitation. The program was the first in Ohio and is dedicated to physical medicine and rehabilitation research, training and treatment.
- Brain and Spine Hospital: a leader in brain and spine treatment and research with
 dedicated units for stroke care, neurotrauma and traumatic brain injuries, spinal cord
 injuries and spine surgery, epilepsy, chronic pain, acute rehabilitation, neurosurgery
 and sleep medicine. Ohio State is one of the first medical centers in the country to
 combine five neuroscience-related specialties into a single, integrated program and
 is designed to rapidly unlock the mysteries of the brain and to pioneer therapies and
 technology on every neurological front.
- Ambulatory Services: offering primary care and many specialized health services in numerous convenient locations throughout Ohio. Primary care, sports medicine, orthopedics, mammography, imaging, wound care and other specialties are provided with the compassionate and nationally ranked expert care that is synonymous with The Ohio State University Wexner Medical Center.

The Health System provided services to approximately 58,000 inpatients and 2,255,000 outpatients during fiscal year 2022 and 62,900 inpatients and 2,116,000 outpatients during fiscal year 2021.

The following financial statements reflect all assets, liabilities, deferred inflows/outflows and net position (equity) of the university, the Ohio State University Wexner Medical Center, the Ohio Agricultural Research and Development Center (OARDC) and the Ohio Technology Consortium (OH-TECH), which is an umbrella organization that includes the Ohio Academic Resources Network (OARnet), the Ohio Supercomputer Center and the Ohio Library and Information Network (OhioLINK). These entities constitute the "primary government" for

financial reporting purposes. In addition, the financial statements include consolidated financial results for a number of "component units", which are legally separate entities that meet the financial accountability criteria set forth in Governmental Accounting Standards Board (GASB) Statement No. 14, *The Financial Reporting Entity*, as amended by GASB Statement No. 61, *The Financial Reporting Entity: Omnibus*, and Statement No. 80, *Blending Requirements for Certain Component Units—an amendment of GASB Statement No. 14*.

The following component units are considered to "exclusively benefit" the university and are shown in a blended presentation with the primary government:

- The OSU Foundation (a fundraising foundation operating exclusively for the benefit of the university)
- OSU Health Plan (a non-profit organization that administers university health care benefits)
- Oval Limited (captive insurer that provides medical malpractice coverage to university hospitals and physicians)
- Pelotonia (a fundraising organization operating exclusively for the benefit of the university)

The GASB has indicated that, under the amended blending standards, the "exclusive benefit" criterion for blending is not met when a component unit provides services to parties external to the primary government. As a result, the university presents the following component units in a discrete presentation:

- OSU Physicians, Inc. (the practice group for physician faculty members of the Colleges of Medicine and Public Health)
- Campus Partners for Community Urban Redevelopment (a non-profit organization participating in the redevelopment of neighborhoods adjacent to the main Columbus campus)
- Transportation Research Center, Inc. (an automotive research and testing facility in East Liberty, Ohio)
- Dental Faculty Practice Association (the practice group for faculty members of the College of Dentistry)
- Science and Technology Campus Corporation (a non-profit organization established to further development of the university's Science and Technology Campus)

Condensed financial information for both blended and discretely presented component units is provided in the Notes to the Financial Statements. The university is considered a component unit of the State of Ohio and is included in the State of Ohio's Comprehensive Annual Financial Report.

About the Financial Statements

The university presents its financial statements in a "business type activity" format, in accordance with GASB Statement No. 34, Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments and GASB Statement No. 35, Basic Financial Statements – and Management's Discussion and Analysis – for Public Colleges and Universities – an amendment of GASB Statement No. 34. In addition to this MD&A section, the financial statements include a Statement of Net Position, a Statement of

Revenues, Expenses and Changes in Net Position, a Statement of Cash Flows and Notes to the Financial Statements. Separate columns are presented for the primary institution (which includes the primary government and the blended component units), discretely presented component units and the total university. Unless otherwise specified, the amounts presented in this MD&A are for the primary institution.

The **Statement of Net Position** is the university's balance sheet. It reflects the total assets, deferred outflows, liabilities, deferred inflows and net position (equity) of the university as of June 30, 2022, with comparative information as of June 30, 2021. Liabilities due within one year, and assets available to pay those liabilities, are classified as current. Other assets and liabilities are classified as non-current. Investment assets are carried at fair value or at Net Asset Value (NAV), as applicable.

Capital assets, which include the university's land, buildings, improvements, and equipment, are shown net of accumulated depreciation. Net position is grouped in the following categories:

- Net investment in capital assets
- Restricted nonexpendable
- Restricted expendable
- Unrestricted

In addition to assets, liabilities and net position, the university's balance sheet includes deferred outflows of resources and deferred inflows of resources. Deferred outflows are similar to assets and will be recognized as expense in future periods. Deferred inflows are similar to liabilities and will be recognized as revenue (or reductions of expense) in future periods.

The **Statement of Revenues, Expenses and Changes in Net Position** is the university's income statement. It details how net position has increased (or decreased) during the year ended June 30, 2022, with comparative information for the year ended June 30, 2021. Tuition revenue is shown net of scholarship allowances, patient care revenue is shown net of contractual allowances, charity care and bad debt expense, depreciation is provided for capital assets, and there are required subtotals for net operating income (loss) and net income (loss) before capital contributions and additions to permanent endowments.

It should be noted that the required subtotal for net operating income or loss generally will reflect a "loss" for state-supported colleges and universities. This is primarily due to the way operating and non-operating items are defined under GASB Statement No. 9, Reporting Cash Flows of Proprietary and Nonexpendable Trust Funds and Governmental Entities That Use Proprietary Fund Accounting. Operating expenses include virtually all university expenses, except for interest on long-term debt and certain investment management expenses. Operating revenues, however, exclude certain significant revenue streams that the university and other public institutions have traditionally relied upon to fund current operations, including state instructional support, current-use gifts and investment income.

The **Statement of Cash Flows** details how cash has increased (or decreased) during the year ended June 30, 2022, with comparative information for the year ended June 30, 2021. It breaks out the sources and uses of university cash into the following categories:

- Operating activities
- Noncapital financing activities
- Capital financing activities
- Investing activities

Cash flows associated with the university's expendable net position appear in the operating and noncapital financing categories. Capital financing activities include payments for capital assets, proceeds from long-term debt and debt repayments. Purchases and sales of investments are reflected as investing activities.

The **Notes to the Financial Statements**, which follow the financial statements, provide additional details on the numbers in the financial statements. Behind the notes is a section that provides required supplementary information related to pensions and other postemployment benefits and other information on the university's Long-Term Investment Pool.

Financial Highlights and Key Trends

The global outbreak of COVID-19, a new strain of coronavirus that can result in severe respiratory disease, was first detected in December of 2019 and subsequently spread across six continents impacting many countries, including the United States. The COVID-19 outbreak has altered the behavior of businesses and people in a manner that has had and is expected to continue to have effects on global and local economies, including the State of Ohio. In fiscal years 2020 and 2021, COVID-19 disrupted key university operations and resulted in significant declines in tuition, housing and dining and athletics revenues. In response to the COVID-19 outbreak, the university instituted a series of cost controls, including a hiring pause and business-only essential spending.

After two unprecedented years managing the COVID-19 pandemic, the university's financial position remains strong, driven by the post-pandemic rebound. Fall, spring, and summer semesters were characterized by a return to near-normal university operations and a full college experience for university students. Total net position increased \$688 million, to \$9.32 billion at June 30, 2022. Total operating revenues increased \$604 million, to \$6.59 billion, reflecting strong growth in Health System patient volumes and the return of athletic events and in-person classes for students. Operating expenses increased \$1.00 billion, to \$6.63 billion, primarily due to an increase in non-cash pension and other post-employment benefit (OPEB) expenses, the return to in-person instruction, increased occupancy in student housing and dining, and at the Health System, increases in outpatient volumes, patient acuity and labor costs.

Demand for an Ohio State education and outcomes for students also remain strong. Total enrollment for Autumn 2021 was 67,772, down 185 students compared to Autumn 2020. 94% of the freshmen enrolled in Autumn 2020 returned to OSU in Autumn 2021. 71% of students graduated within four years, and 88% graduated within six years.

In 2022, the university implemented GASB Statement No. 87, *Leases*. This standard establishes accounting and reporting for leases, based on the foundational principle that all

leases are financings of the right to use an underlying asset for a period of time. Lessees record an intangible right-of-use asset and corresponding lease liability, based on the present value of the payments expected to be made during the lease term. Lessors record a lease receivable and a corresponding deferred inflow of resources. The standard provides an exception for short-term leases with a maximum possible term of 12 months or less.

The cumulative effect of adopting GASB Statement No. 87 was a \$4 million increase in the university's net position as of July 1, 2020. The accompanying financial statements and MD&A information for the year ended June 30, 2021 have been restated to reflect the new accounting standard. MD&A information for the year ended June 30, 2020 has not been restated.

The following sections provide additional details on the university's 2022 financial results and a look ahead at significant economic conditions that are expected to affect the university in the future.

Statement of Net Position

Summary Statement of Net Position (in thousands)		2022	2021	2020		
Cash and temporary investments	\$	2,850,835	\$ 3,371,175	\$	3,633,027	
Receivables, inventories, prepaids and other current assets		1,157,143	 1,035,040		808,875	
Total current assets		4,007,978	 4,406,215		4,441,902	
Unexpended bond proceeds		679,040	276,243		401,664	
Noncurrent notes and pledges receivable, net		134,643	134,207		110,673	
Net other post-employment benefit asset		441,127	275,182		77,90	
ong-term investment pool		6,960,782	7,041,973		5,287,13	
Other long-term investments		301,855	348,227		301,67	
Other noncurrent assets		197,526	169,251		-	
Capital assets, net of accumulated depreciation		7,194,565	 6,408,423		5,700,07	
Total noncurrent assets		15,909,538	14,653,506		11,879,12	
Total assets		19,917,516	19,059,721		16,321,02	
Deferred outflows		618,414	467,600		717,35	
Total assets and deferred outflows	\$	20,535,930	\$ 19,527,321	\$	17,038,38	
Accounts payable and accrued expenses	\$	757,606	\$ 774,841	\$	638,75	
Medicare advance payment program		79,601	254,854		274,91	
Deposits and advance payments for goods and services		447,404	371,040		268,48	
Current portion of bonds, notes and lease obligations		384,458	359,963		374,71	
Other current liabilities		184,394	 90,028		88,67	
Total current liabilities		1,853,463	 1,850,726		1,645,53	
Noncurrent portion of bonds, notes and lease obligations		3,357,938	2,736,441		2,732,09	
Net pension liability		1,497,793	2,679,333		3,025,02	
Net other post-employment benefit liability		15,661	22,683		1,459,57	
Advance from concessionaire		963,663	980,953		1,002,76	
Other noncurrent liabilities		831,855	 760,142		527,48	
Total noncurrent liabilities		6,666,910	 7,179,551		8,746,95	
Total liabilities		8,520,373	 9,030,277		10,392,49	
Deferred inflows		2,695,441	 1,865,366		1,221,39	
Net investment in capital assets		3,706,371	3,473,109		3,010,09	
Restricted:		4 070 000	4 700 004		4 600 70	
Nonexpendable		1,870,686	1,789,304		1,622,78	
Expendable		1,560,810	2,030,928		1,125,35	
Unrestricted		2,182,249	 1,338,337	-	(333,74	
Total net position		9,320,116	8,631,678		5,424,49	
Total liabilities, deferred inflows and net position	\$	20,535,930	\$ 19,527,321	\$	17,038,38	

During the year ended June 30, 2022, **cash and temporary investment** balances decreased \$520 million, to \$2.85 billion, reflecting capital expenditures and net cash flows for operating activities. **Unexpended bond proceeds** increased \$403 million, to \$679 million at June 30, 2022, primarily reflecting proceeds from the Series 2021A bonds, which were issued in September 2021. The Statement of Cash Flows, which is discussed in more detail below, provides additional information on sources and uses of university cash.

Accounts receivable, inventories, prepaids and other current assets increased \$122 million, to \$1.16 billion at June 30, 2022. Accounts receivable increased \$35 million, to \$772 million at June 30, 2022. Health System receivables were up \$28 million, reflecting an overall increase in hospital patient acuity and increased outpatient volumes. Current assets held as part of the university's securities lending program increased \$84 million, to \$202 million at June 30, 2022, reflecting an expansion of securities lending activity in 2022.

The fair value of the university's **long-term investment pool** (LTIP) decreased \$81 million, to \$6.96 billion at June 30, 2022. The decrease is primarily due to a \$254 million decrease in the fair value of LTIP assets and \$259 million of distributions, which were partially offset by \$96 million of additions to gifted endowments and \$268 million of additions to quasi-endowment (operating and designated) funds. The long-term investment pool operates similar to a mutual fund, in that each named fund is assigned a number of shares in the pool. It includes the gifted endowment funds of the university, gifted endowment funds of the OSU Foundation, and unrestricted funds that have been internally designated to function as endowments. The pool is invested in a diversified portfolio of equity and fixed-income securities, partnerships and hedge funds that is intended to provide the long-term growth necessary to preserve the value of these funds, adjusted for inflation, while making distributions to support the university's mission.

Other long-term investments are non-unitized investments that relate primarily to gift arrangements between donors and the OSU Foundation and long-term investments of operating funds. These investments decreased \$46 million, to \$302 million, at June 30, 2022, primarily due to unrealized losses in private equity funds.

Capital assets, which include the university's land, buildings, improvements, equipment and library books, net of depreciation, grew \$786 million, to \$7.19 billion at June 30, 2022. The university depreciates its capital assets on a straight-line basis, using estimated useful lives ranging from 5 years (for computer equipment and software) to 100 years (for certain building components such as foundations).

Additions to university capital assets totaled \$1.28 billion in 2022. The Health System accounted for \$778 million of the total and includes expenditures for facilities, infrastructure improvement, land, and equipment purchases. The remaining \$500 million of university capital additions include \$50 million of equipment and library books, \$151 million related to Comprehensive Energy Management Plan (CEMP) facility improvements and \$299 million related to improvements and renovations of various academic buildings, athletic facilities, student life facilities and other infrastructure.

New outpatient care facilities in Dublin and New Albany were completed during the fiscal year. The Frank Stanton Veterinary Spectrum of Care Clinic opened its doors as the new home for the Veterinary Medical Center's community practice team. An advanced imaging center on the first floor of Morehouse Medical Plaza Concourse was created with the installation of a 3T MRI scanner. The renewal of emergency generators was completed for the Comprehensive Cancer Center, Sisson Hall, Wiseman Hall and 1224 Kinnear Road.

The OSU Health System has major construction projects currently underway including:

- New Inpatient Hospital Construction continues on a 1.9 million square foot, 24-story inpatient hospital east of Cannon Drive. Scheduled to open in early 2026, the \$1.79 billion hospital is the largest single facilities project ever undertaken at The Ohio State University.
- Health System Outpatient Care West Campus Construction continues on the \$350 million West Campus outpatient facility. This 385,000 square foot cancerfocused facility will include outpatient operating rooms, interventional radiology rooms, an extended recovery unit, a pre-anesthesia center, a diagnostic imaging center, pharmacy, hematology clinic, genitourinary (GU) clinic, infusion and medical office and support spaces. The outpatient facility will also include the region's first proton therapy facility and is slated to open in March 2023.

Major academic facility projects currently underway include:

- Interdisciplinary Research Facility Construction is advancing on a 305,000 square foot, five-story laboratory building on West Campus that will serve multiple research disciplines, including biomedical, life sciences, engineering and environmental sciences. Two floors will be dedicated to The Ohio State University Comprehensive Cancer Center. Scheduled for completion in May 2023, the \$228 million facility will be an anchor for the university's future Innovation District.
- The Interdisciplinary Health Sciences Center Currently in progress, this project will renovate existing facilities and construct a new building for interprofessional education through the health sciences including the college of Medicine and Optometry. Occupancy is slated for January 2024.
- The Energy Advancement and Innovation Center Construction is advancing on a new facility that will be a hub for Ohio State faculty members, students, alumni, researchers, local entrepreneurs and industry experts to work together on the next generation of smart energy systems, renewable energy and green mobility solutions. The \$48 million project is slated for opening in November 2023.
- Arts District Work continues on the \$165 million Arts District project on the west side of High Street between 15th and 18th avenues. Included are new facilities for the School of Music (Timashev Family Music Building) and Department of Theatre, Film, and Media Arts.

The university's estimated future capital commitments, based on contracts and purchase orders, total approximately \$1.35 billion at June 30, 2022.

The Health System received \$275 million in 2020 under the **Medicare Accelerated and Advance Payment Program**. These amounts are considered short-term loans, and

repayments began in 2021. Current liabilities for advance payments provided to the Health System totaled \$80 million and \$255 million at June 30, 2022 and 2021, respectively.

On April 10, 2017, the university entered into a 50-year agreement to lease the university's utility system to Ohio State Energy Partners (OSEP) and grant it the exclusive right to operate the utility system and provide utility services to the Columbus campus. On July 6, 2017, the university received an upfront payment of \$1.09 billion. The upfront payment is reported as an **advance from concessionaire** and is being amortized as a reduction to operating expense (Operation and Maintenance of Plant) on a straight-line basis over the term of the agreement.

Under the agreement, OSEP operates, maintains and makes capital investments in the utility system and charges the university a Utility Fee, which includes fixed, variable and operating and maintenance (O&M) components. OSEP capital investments in the utility system are recognized as capital assets and a related **long-term payable to the concessionaire**. The fixed and O&M components of the Utility Fee are recognized as operating expense. The variable component of the Utility Fee will be recognized as a reduction in the long-term payable to the concessionaire and interest expense. The university paid \$62 million and \$59 million in total fixed and O&M utility fees for the years ended June 30, 2022 and 2021, respectively. The total amounts payable to the concessionaire increased \$139 million, to \$375 million at June 30, 2022. The \$19 million current portion of this liability is included in other current liabilities on the Statement of Net Position.

University debt, in the form of **bonds, notes and lease obligations**, increased \$646 million, to \$3.74 billion at June 30, 2022. On September 30, 2021, the University closed on \$600,000 in tax-exempt fixed rate General Receipts Bonds - Series 2021A. The \$715 million of net proceeds from the bond issue are being used to fund construction of the Wexner Medical Center's new Inpatient Hospital, scheduled to open in 2026.

In 2020, the university entered into forward-starting interest-rate swap agreements to advance refund its Series 2013A bonds. The swap agreements are effective June 2023, have a total notional amount of \$329 million and are considered effective hedges. The fair value of the swap agreements – which are reported as a noncurrent asset and offsetting deferred inflow of resources – was \$50 million and \$12 million at June 30, 2022 and 2021, respectively.

The university's plant debt includes variable rate demand bonds that mature at various dates through 2044. GASB Interpretation 1, *Demand Bonds Issued by State and Local Governmental Entities*, provides guidance on the statement of net position classification of these bonds. Under GASB Interpretation 1, outstanding principal balances on variable rate demand bonds may be classified as noncurrent liabilities if the issuer has entered into a "take-out agreement" to convert bonds "put" but not resold into some other form of long-term obligation. In the absence of such an agreement, the total outstanding principal balances for these bonds are required to be classified as current liabilities.

Although it is the university's intent to repay its variable rate demand bonds in accordance with the maturities set forth in the bond offering circulars, the university does not have "take-out agreements" in place per the GASB Interpretation 1 requirements. Accordingly, the university has classified the total outstanding principal balances on its variable rate demand bonds as

current liabilities. These obligations totaled \$275 million and \$290 million at June 30, 2022 and 2021, respectively.

GASB Statement No. 68 requires governmental employers participating in defined benefit pension plans to recognize liabilities for plans whose actuarial liabilities exceed the plan's net assets. These liabilities are referred to as net pension liabilities. A related accounting standard, GASB Statement No. 75, requires employers participating in other post-employment benefit (OPEB) plans to recognize liabilities for plans whose actuarial liabilities exceed the plan's net assets. OPEB benefits consist primarily of post-retirement healthcare. The university participates in two multi-employer cost-sharing retirement systems, OPERS and STRS-Ohio, and is required to record a liability for its proportionate share of the net pension and OPEB liabilities of the retirement systems.

GASB Statement No. 68 requires governmental employers participating in defined benefit pension plans to recognize liabilities for plans whose actuarial liabilities exceed the plan's net assets. These liabilities are referred to as net pension liabilities. A related accounting standard, GASB Statement No. 75, requires employers participating in other post-employment benefit (OPEB) plans to recognize liabilities for plans whose actuarial liabilities exceed the plan's net assets. OPEB benefits consist primarily of post-retirement healthcare. The university participates in two multi-employer cost-sharing retirement systems, OPERS and STRS-Ohio, and is required to record a liability for its proportionate share of the net pension and OPEB liabilities of the retirement systems.

In 2022, the university's share of OPERS and STRS-Ohio net pension liabilities decreased \$1.18 billion, to \$1.50 billion at June 30, 2022. OPERS and STRS-Ohio net pension liabilities decreased \$644 million and \$537 million, respectively, reflecting strong investment returns for both retirement systems. OPERS realized a 15.34% return on defined benefit plan investments for calendar year 2021. STRS-Ohio realized a 29.16% return for the fiscal year ended June 30, 2021.

Deferred outflows related to pensions increased \$244 million, to \$584 million at June 30, 2022, and deferred inflows related to pensions increased \$999 million, to \$1.68 billion at June 30, 2022. The changes in pension deferrals relate primarily to OPERS and STRS-Ohio projected vs. actual investment returns. These deferrals will be recognized as pension expense in future periods.

In 2022, the university's share of OPERS and STRS-Ohio net OPEB assets increased \$166 million, to \$441 million at June 30, 2022, reflecting strong investment returns. OPERS realized a 14.34% return on its health care investments for calendar year 2021. STRS-Ohio realized a 29.16% return for the fiscal year ended June 30, 2021.

Deferred outflows related to OPEB decreased \$93 million, to \$12 million at June 30, 2022, and deferred inflows related to OPEB decreased \$219 million, to \$457 million at June 30, 2022. The changes in pension deferrals relate primarily to amortization of prior-year OPERS deferrals for changes in assumptions and expected vs actual experience. These deferrals will be recognized as OPEB expense in future periods.

Total pension and OPEB expense includes employer contributions and (non-cash) expense accruals associated with the recognition of net pension and OPEB liabilities and deferrals. Total employer contributions were up \$14 million, to \$409 million in 2022. Pension and OPEB expense accruals went from a net credit of \$1.17 billion in 2021 to a net credit of \$720 million in 2022.

It should be noted that, in Ohio, employer contributions to the state's cost-sharing multiemployer retirement systems are established by statute. These contributions, which are payable to the retirement systems one month in arrears, constitute the full legal claim on the university for pension and OPEB funding. Although the liabilities recognized under GASB 68 and GASB 75 meet the GASB's definition of a liability in its conceptual framework for accounting standards, they do not represent legal claims on the university's resources, and there are no cash flows associated with the recognition of net pension and OPEB liabilities, deferrals and related expense.

Deferred inflows primarily consist of changes to OPEB assets and pension liabilities as explained in the previous paragraphs, the unamortized proceeds of the parking service concession arrangement and deferred inflows related to leases. The parking deferred inflows, which totaled \$388 million and \$397 million at June 30, 2022 and June 30, 2021, respectively, are being amortized to operating revenue on a straight-line basis over the 50-year life of the agreement. Deferred inflows for leases totaled \$92 million and \$69 million at June 30, 2022 and 2021, respectively, and are being amortized to lease revenue on a straight-line basis over the terms of the leases., The remaining balance of deferred inflows relates to deferred gains on debt-related transactions and deferrals for irrevocable split-interest agreements.

Prior-Year Highlights: *In 2021*, the university's share of OPERS and STRS-Ohio net OPEB liabilities swung from a \$1.36 billion net liability to a \$275 million net asset at June 30, 2021, primarily due to changes in OPERS benefit terms. The fair value of the LTIP increased \$1.75 billion, to \$7.04 billion at June 30, 2021, primarily due to a \$1.69 billion increase in the fair value of LTIP assets, \$137 million of interest and dividend income and \$251 million of net principal additions. *In 2020*, cash and temporary investment balances increased \$325 million, to \$3.63 billion, primarily due to the Health System's receipt of \$275 million of Medicare Advance payments and \$143 million of Provider Relief Funds. The university's share of OPERS and STRS-Ohio net pension liabilities decreased \$690 million, to \$3.03 billion at June 30, 2020, primarily reflecting a 17.23% return in calendar 2019 on OPERS defined benefit plan investments.

Statement of Revenues, Expenses and Changes in Net Position

2021	2020
869,740	\$ 953,569
784,021	743,431
175,961	298,064
3,952,605	3,449,681
78 207,858	187,089
5,990,185	5,631,834
2,238,671	2,809,135
554 205,928	320,392
2,728,378	3,345,167
460,478	425,012
5,633,456	6,899,706
356,728	(1,267,872
486,115	461,838
81 129,723	157,511
35) 1,859,173	231,190
150,037	158,058
8,270_	19,169
2,633,318	1,027,766
2,990,046	(240,106
63,988	69,905
12 78,942	77,425
906 63,157	63,695
6,923	19,499
213,010	230,524
3,203,056	(9,582
5,424,494	5,434,076
4,128	
1	4,128

Net **tuition and fees** increased \$133 million or 15%, to \$1.00 billion in 2022. Gross tuition increased \$78 million for spring, \$73 million for autumn semester, and \$16 million for summer semester, offset by an increase in scholarship allowance of \$34 million. Tuition for the academic year increased primarily due to a return to in-person instruction and full assessment of non-resident fees. Similarly, scholarships increased to cover increases in fees for non-residents and Higher Education Emergency Relief Fund (HEERF) financial aid to students.

Operating **grant and contract revenues** increased \$30 million, to \$814 million, primarily reflecting a \$19 million increase in federal grants. Grants managed by the Office of Sponsored Programs increased \$55 million.

Total **auxiliary revenues** increased \$188 million, to \$364 million. Athletics revenue increased \$82 million, reflecting the resumption of fall and spring sports. Student Life housing and dining

revenues increased \$63 million, and Business Advancement (Schottenstein Center, Blackwell and Fawcett Center) revenues increased \$39 million, as the return to in-person instruction drove increased demand for on-campus housing and dining services and on-campus activities and events. **Auxiliary expenses** increased \$146 million, to \$352 million. Excluding pension and OPEB, expenses increased \$119 million. The increase is primarily due to the resumption of fall and spring sports, increased occupancy for student housing, and the return of Schottenstein Center events.

	2022	2021	2020		
Instruction and departmental research	\$ 1,152,173	\$ 1,050,944	\$	1,051,376	
Separately budgeted research	545,459	497,923		505,290	
Public service	166,082	170,844		176,889	
Academic support	273,709	252,353		223,552	
Student services	102,034	80,175		89,16	
Institutional support	325,935	346,836		355,17	
Operation and maintenance of plant	138,708	118,406		117,72	
Scholarships and fellowships	 165,312	 147,269		139,62	
Total educational and general expense, excluding pension and OPEB accruals	2,869,412	2,664,750		2,658,79	
Non-cash accruals for pensions and OPEB	 (317,391)	 (426,078)		150,33	
Total educational and general expense	\$ 2,552,021	\$ 2,238,672	\$	2,809,13	

Educational and general expenses increased \$313 million to \$2.55 billion in 2022, partially due to a \$109 million increase in allocated pension and OPEB expense. Excluding pension and OPEB accruals, E&G expenses increased \$205 million. Increases in instruction and other E&G categories primarily reflect the return to in-person instruction. Separately budgeted research increased \$48 million, reflecting increases in sponsored research program expenditures.

Health System operating revenues increased \$226 million, to \$4.18 billion in 2022, reflecting increases in hospital patient acuity and growth in outpatient volumes. Operating expenses (excluding depreciation, interest and transfers) increased \$509 million to \$3.24 billion, primarily due to a \$311 million increase in expenses associated with pension and OPEB accruals. Excluding pension and OPEB, Health System operating expenses increased \$198 million. An in-depth look at the Health System, as presented in their stand-alone financial statements, is provided below.

In total, the Health System operates nearly 1,500 inpatient beds and serves as a major tertiary and quaternary referral center for Ohio and the Midwest. The Medical Center delivers superior patient care, quality outcomes, and patient safety and has been recognized by US News and World Report for 30 consecutive years as one of "America's Best Hospitals" and in July 2022 was ranked first in Central Ohio. US News and World Report further recognized the Health System as a national leader in nine specialties including: Cancer, Cardiology & Heart Surgery, Diabetes & Endocrinology, Ear, Nose & Throat, Gastroenterology and Gl Surgery, Gynecology, Neurology and Neurosurgery, Pulmonary and Lung Surgery, and Rehabilitation.

The Medical Center is rated as high performing in 14 out of 20 common procedures and conditions.

The Health System is also proud to be the first in central Ohio to have a hospital achieve Magnet Recognition, one of the highest honors awarded for nursing excellence. The Ross Heart Hospital, University Hospital, The James, and the Solove Research Institute are all designated Magnet hospitals. The Medical Center has more "Top Doctors" than any other central Ohio hospital according to the August 2022 Columbus Monthly Health magazine in conjunction with Castle Connolly. Wexner Medical Center physicians were selected by Castle Connolly because they are among the very best in their specialties.

In 2022, the Health System experienced a slight growth in surgical and procedural volumes. Total surgical volume increased 1.3% compared to 2021. Hospital admissions declined 7.3% in 2022 compared to 2021. Labor shortages have created staffing challenges that have resulted in a decrease in patient days and a higher length of stay for the year. The demand for outpatient services was higher in 2022. Chemotherapy, radiation oncology treatments, and non-chemotherapy infusion all experienced increases in outpatient volume in 2022.

Approximately 87% of total operating revenues are from patient care activities. Total operating revenues grew \$246 million or 6.2% over the prior fiscal year. Outpatient surgical volume increased 5.5% compared to 2021. The James experienced a 4.5% increase in chemotherapy volume and the Health System non-chemotherapy infusion sites grew 23.7%. In addition, procedural volumes including electrophysiology, radiation treatments and rehabilitation contributed to the increase in outpatient activity. Outpatient Care New Albany recorded approximately 10,000 new patient visits in 2022.

Other Operating Revenues include revenue from reference labs, cafeteria operations, rental agreements and other non-patient services. Due to the increasing complexity and significantly growing number of specialty oral and self-administered pharmaceuticals available for cancer and non-cancer patients, the Health System operates a Specialty Retail Pharmacy dedicated to improving patient care by easing the challenges of managing medications. The Specialty Retail Pharmacy contributed \$249 million to Health System operating revenues in 2022 and \$205 million in 2021.

Other Operating Revenues also includes a portion of the revenue shared with Nationwide Children's Hospital for the management of the Neonatal Intensive Care Unit (NICU) located at the Health System. The goal of this managed unit is to standardize the care and quality outcomes of all the neonatal patients in Central Ohio. The NICU contributed \$17 million of operating revenues in 2022 and \$14 million in 2021. In 2019, the Health System enrolled in the Care Innovation and Community Improvement Program (CICIP). CICIP was developed to increase alignment of quality improvement strategies and goals between the State, Managed Care Organizations (MCO), and both public and nonprofit hospital agencies. The Health System recognized \$89 million in Other Operating Revenues related to CICIP in 2022 compared to \$97 million in 2021.

Operating expenses increased \$645 million or 24.0% from 2021 to 2022. Excluding pension and OPEB accruals, which increased \$339 million, operating expenses increased \$306 million. The increase in operating expenses is primarily attributed to increases in salaries and benefits

as well as medical supplies. Health System salaries and benefits increased \$127 million. The growth in salaries and benefit costs includes significant costs for premium and incentive pay reflecting labor shortages and the challenging environment around hiring nursing and clinical care positions. increases in incentive pay, retention bonuses, and premium pay. Supplies and drugs increased \$100.6 million or 9.1%. The increase in supplies was a result of a strong outpatient volumes as well as inflationary impacts felt across the Health System. The growth in drugs is due to increased volumes in chemotherapy at the James as well as increased volumes at the Health System non-chemotherapy infusion sites. Additionally, drug costs increased at the Specialty Retail Pharmacy as a result of higher volumes in 2022. Purchased services grew \$57.9 million or 13.5% in 2022 reflecting increased hospital franchise fees as well as higher preventive maintenance costs associated with information technology and clinical care systems.

The Health System is continuing its vision to deliver unparalleled care and meet anticipated future growth, embarking on a plan to expand its care with new, large outpatient care facilities planned for Dublin and Powell. The comprehensive facilities are a continuation of a suburban outpatient care program that supports growth in the region and excellence in academic health care will include ambulatory surgery, endoscopy, primary care, specialty medical and surgical clinics and related support space. The new inpatient hospital scheduled to open in early 2026 will be a 1.9 million square foot facility and the largest single facilities project ever undertaken at The University. The new tower will enhance research, clinical training and patient care.

The Health System will continue creating an innovative healthcare delivery model to deliver high value care with an unparalleled patient experience and access. By pushing the boundaries of discovery and knowledge, The Ohio State University Wexner Medical Center will solve significant problems and deliver unparalleled care.

Consolidated revenues for **OSU Physicians, Inc.** (OSUP), the University's central practice group for physician faculty members of the College of Medicine and Public Health, increased \$54 million, to \$702 million in 2022. Net patient care revenue increased \$22 million, reflecting recovery in outpatient visits and procedures volumes. Other revenues increased \$31 million. Consolidated operating expenses increased \$63 million, to \$661 million in 2022. The increase primarily reflects physician and other provider related costs for new physicians and other providers entering the practice during fiscal year 2022. OSUP balances are included in the Discretely Presented Component Units columns of the university's financial statements.

Total state operating support increased \$7 million, to \$493 million. Total **state share of instruction** (SSI) for 2022 was \$403 million, a 1% increase over final 2021 distributions. **State line-item appropriations** increased \$5 million in 2022, to \$90 million, primarily reflecting a new \$4 million line-item for the College of Veterinary Medicine. **State capital appropriations** decreased \$11 million, to \$53 million.

In response to the COVID-19 outbreak, the federal government has provided support to individuals, companies and non-profit institutions in the form of loans, grants, tax changes and other types of relief. The university recognized revenues totaling \$169 million for **federal COVID-19 assistance programs** in 2022, including \$64 million of HEERF institutional grants,

\$60 million of HEERF grants to students, \$10 million of Shuttered Venue Operators Grants, \$12 million in FEMA Public Assistance funds for the Health System and \$10 million of pass-through funding provided to the Health System by the Ohio Department of Health. In 2021, the university recognized revenues totaling \$150 million, including \$59 million of HEERF institutional grants, \$25 million of HEERF grants to students, \$42 million of Coronavirus Relief Funds from the State of Ohio, and \$16 million in FEMA Public Assistance funds provided to the Health System. Amounts provided to the university under these grant programs are recognized as non-operating revenues in the Statement of Revenues, Expenses and Changes in Net Position as eligibility requirements are met.

Total **gifts** to the university increased \$83 million, to \$355 million in 2022. Several colleges and support units received gifts in excess of \$1 million in 2022, including the Office of the President, the College of Veterinary Medicine, the College of Food, Agricultural and Environmental Sciences, University Hospitals, the James Cancer Hospital and Research Institute, the Comprehensive Cancer Center, the Richard M Ross Heart Hospital, the College of Medicine, the College of Public Health, The College of Arts and Sciences, the College of Engineering, Fisher College of Business, Moritz College of Law, the College of Education and Human Ecology, WOSU, the Department of Athletics and General University Scholarships. Support came from more than 236,000 alumni and friends.

University investments yielded a \$292 million **net investment loss** in 2022, compared with \$1.86 billion of net investment income in 2021. For 2022, the LTIP returned +0.98% compared to +29.2 in 2021.

The LTIP outperformed its preliminary policy benchmark of -5.54% for 2022. During that period, Private Equity returned 27.03% (compared to the benchmark of 7.28%) followed by Legacy Investments at 13.71% (benchmark is return of actual underlying funds), Real Assets at 13.29% (compared to the preliminary benchmark of 22.40%), Hedge Funds and Opportunistic Credit at 4.37% (compared to the preliminary benchmark of -5.65%), Cash and High-Grade Bonds at -3.21% (compared to the benchmark of -10.29%), and Public Equity at -15.80% (compared to the benchmark of -15.75%).

Prior-Year Highlights: In 2021, total net position increased \$3.20 billion, to \$8.63 billion at June 30, 2021, driven primarily by strong investment performance, continued positive momentum at the Health System, significant efficiency measures across the university and reductions in university net pension and other post-employment benefit liabilities. University investments yielded \$1.86 billion of net investment income in 2021, compared with \$231 million in 2020. The LTIP returned +29.2% compared to +1.1% in 2020. Total pension and OPEB expense recognized by the university decreased \$1.58 billion, to a negative (credit) of \$770 million in 2021. *In 2020*, total net position was stable, decreasing \$10 million, to \$5.42 billion at June 30, 2020. Federal assistance provided under the Coronavirus Aid, Relief, and Economic Security (CARES) Act and the implementation of expenditure controls offset a significant portion of the revenue losses from suspended operations. Health System operating revenues were relatively stable in 2020, increasing \$17 million, to \$3.45 billion. University investments yielded \$231 million of net investment income in 2020, compared with \$230 million in 2019.

Statement of Cash Flows

	 2022		2021	2020		
Net cash flows used in operating activities	\$ (533,406)	\$	(388,187)	\$	(4,234)	
Net cash flows from noncapital financing activities	1,060,459		889,559		934,803	
Receipts for capital projects	56,061		145,499		104,855	
Proceeds from capital debt	739,775		-		-	
Payments for purchase or construction of capital assets	(1,055,311)		(891,524)		(739,379)	
Principal and interest payments on capital debt and leases, net of federal Build America Bond interest subsidies	(218,332)		(198,820)		(180,250)	
Net cash flows provided (used) in investing activities	(699,755)		(849,008)		68,118	
Net increase (decrease) in cash and cash equivalents	\$ (650,509)	\$	(1,292,481)	\$	183,913	

University cash and cash equivalents decreased \$651 million in 2022. Net cash used in operating activities was \$533 million, compared to \$388 million in 2021, primarily reflecting increases in payments to employees and vendors, which were partially offset by increases in receipts for tuition and sales and services. Net cash flows from noncapital financing activities increased \$171 million, to \$1.06 billion, reflecting increases in gift receipts, receipts from federal COVID-19 assistance programs and receipts of non-exchange grants. Payments for purchase or construction of capital assets increased \$164 million, to \$1.06 billion, primarily due to increases in Health System capital expenditures. These capital expenditures were partially offset by the proceeds from the Series 2021A bonds. Cash used by investing activities was \$700 million, reflecting net purchases of temporary investments.

Strategic Context

Fiscal year 2022 demonstrated Ohio State's firm footing. Due to strong investment performance, continued positive momentum at the health system, a robust and ongoing budgetary response to COVID-19, and significant progress in achieving operational efficiencies, the university outperformed prior fiscal years. Looking ahead, the university's fiscal stability, strength, and resiliency position us to make concrete strides toward our goal to become the absolute model land-grant university for the 21st century.

President Kristina M. Johnson, Ph.D., highlighted in her second State of the University address a continued commitment to five areas of excellence: academics, research, service and clinical, talent and culture, and operations.

Academic Excellence

Investing in exceptional faculty is essential to the university's success. Bolstered by our long-term financial strategies, Ohio State will recruit 350 net new tenured and tenure-track faculty over 10 years who will, in turn, attract a new generation of students and postdoctoral scholars. Included in this is the RAISE (Race, Inclusion and Social Equity) initiative to recruit faculty who will further enhance the quality of our research and scholarship focused on racial disparities.

Through innovative academic programming, the university is also working to continue preparing our students for successful careers in an always-changing world. Examples include the new interdisciplinary minor in public health and the arts, and a collaboration between the College of Food, Agricultural, and Environmental Sciences and the University of Rio Grande and Rio Grande Community College to prepare the state's future agricultural workforce.

The university is also taking steps to better leverage technology to provide on-demand academic advising to students and expand educational offerings and flexibility to more people in more places — including Buckeye alumni.

Research Excellence

In 2021, President Johnson announced Ohio State's intention to double research expenditures within a decade. The university made progress toward this goal, recording an increase in our total from \$968 million to over \$1.2 billion — a new record. This momentum continued in FY 2022 with Ohio State being awarded leadership of eight major federally funded, cross-disciplinary research centers and initiatives.

We intend to leverage the full extent of Ohio State's research and educational expertise to support Intel's historic decision to invest \$20 billion and build two semiconductor fabrication plants near Ohio State. The university has a key role to play in the success of this project, and we are already collaborating with K-12 schools, vocational centers, community colleges four-year colleges and universities across the Midwest to take a networked approach to meeting the workforce and innovation needs of the region's future semiconductor industry.

These efforts build off our \$100 million strategic partnership with JobsOhio and Nationwide Children's Hospital to spur innovation and economic growth in the state. As part of this initiative, the university committed to increasing research awards from the National Institutes of Health by 50% by 2031 and educating a total of 22,500 STEM graduates by 2036.

Progress also continues in the Ohio State Innovation District. Construction on the Interdisciplinary Research Facility is ongoing, and we were pleased to break ground on the co-located Energy Advancement and Innovation Center. This project is an outgrowth of our partnership with ENGIE and will be a hub for Ohio State students, scholars, industry experts and local entrepreneurs to conduct research and innovation in artificial intelligence, sustainability, and smart systems. These facilities, as well as Outpatient Care West Campus, will anchor the Innovation District and help fuel an ever more vibrant future in our region and state.

Talent and Culture Excellence

Funding for programs that enable us to recruit, retain and elevate the very best scholars and students will make Ohio State a destination for creative expression and scientific discovery. We aim to be the best and most enriching academic community in the world for researchers, artists, and learners alike.

To advance this goal, the university launched the implementation phase of our Shared Values Initiative, a renewed effort to express who we are as an institution and provide a platform for advancing a healthy and ethical culture at Ohio State. By remaining focused on our core principles of excellence and impact, diversity and innovation, inclusion and equity, care and compassion, and integrity and respect, we can redefine both what the land-grant university of the 21st century can accomplish and how it achieves it.

With these values firmly in mind, we remain dedicated to enhancing the culture of care that thrives on our campuses. The university is currently implementing the recommendations of our Commission on Student Mental Health and Well-Being to provide additional tools, resources, and connections to better enable Buckeyes to take care of themselves and each other. We also continue to hone our holistic approach to enhancing safety on and near our Columbus campus.

Service and Clinical Excellence

Ohio State has always been inspired by our land-grant mission of enabling all people to achieve the extraordinary. The Scarlet & Gray Advantage program is the latest step in this enduring commitment. The program will offer pathways for our undergraduate students to earn their degrees debt-free through a mix of paid internships, on-campus work experiences, financial aid, and philanthropy.

We are excited to pilot the program this fall and to incorporate what we learn as we deliver it at scale. Our ultimate goal is to enable thousands more students each year

to graduate without the burden of loans — allowing them to take advantage of every great opportunity that comes their way.

The Scarlet & Gray Advantage program builds on the university's long-standing focus on affordability. A sixth incoming class of in-state students will enter under the Ohio State Tuition Guarantee, which locks in rates for tuition, mandatory fees, room and board for four years. The program provides students and families with predictability about the cost of a four-year education.

Beyond enhancing educational affordability and access, the university's academic health care enterprise remains a cornerstone of our ability to serve the people of our region and state. The Ohio State University Wexner Medical Center (OSUWMC) continues to reinvest projected margin in patient care and capital planning to support growing demand, including several strategic initiatives currently under construction and the development of new partnerships to continue the accelerating the pace of innovation in research, education, and patient care.

Strategic growth initiatives include:

- Outpatient Care New Albany Opened in 2021, the 251,000-square-foot outpatient care facility will expand ambulatory surgery, primary care, and specialty clinics in the region.
- Outpatient Care Dublin Opened in the summer of 2022, the 272,000-squarefoot outpatient care facility will provide expanded offerings in the region like those referenced for New Albany.
- Outpatient Care West Campus Scheduled to open in 2023, the 385,000-square-foot project will include outpatient operating rooms, clinical and diagnostic space, pharmacy, medical office, and support spaces. The location will also include central Ohio's first proton therapy treatment facility in partnership with Nationwide Children's Hospital.
- Interdisciplinary Research Facility Also planning to open in 2023, the 305,000-square-foot facility will serve a variety of research disciplines, including the Ohio State University Comprehensive Cancer Center, biomedical, life sciences, engineering, and environmental sciences.
- Inpatient Hospital Scheduled to open in 2026, the 1.9 million-square-foot hospital will enhance a unified Ohio State Wexner Medical Center campus providing leading-edge research, outstanding clinical training and world-class patient care.

Development of new partnerships include:

- Dispatch Health To provide access to in-home medical care for OSUWMC patients and providers throughout the Columbus community.
- **Alternative Solutions Health Network** A joint venture to provide central Ohio patients with high-quality connected care directly in their homes, reduce preventable hospital readmissions and enhance operational efficiencies.
- Teladoc Health To offer improved care and support for individuals living with Type 2 diabetes.

One Medical – To expand Ohio State's outpatient care strategy to meet the
needs of the communities we serve by building on our exceptional primary-care
offerings, increasing access to digital health care solutions and improving
access to services that are essential to better health.

Operational Excellence

Strategic benchmarking, revenue optimization and diligent efficiency initiatives are pillars of Ohio State's efforts to be a trusted steward of our resources. Comprehensive administrative efficiencies enable us to direct funds to our core mission and support excellence in the above areas and across the university and medical center.

To continue safeguarding the university's resources and enable crucial investments in the future, the university set three efficiency savings goals for FY 2022.

- *University* \$35 million of targeted savings across all colleges and support offices. \$88.3 million of savings have been realized through June 30, 2022.
- **Wexner Medical Center** \$30 million of targeted savings. \$115 million of savings have been realized through June 30, 2022.
- **Capital** \$25 million of targeted savings. \$61.6 million of savings have been realized through June 30, 2022.

Financial controls implemented in FY 2022 helped realize in total over \$265 million in cost savings — exceeding our \$90 million goal.

The impact of COVID-19 on university finances and operations may continue for at least the coming (FY2023) fiscal year, depending on vaccination rates and whether the COVID-19 virus or variations of the virus (including the Omicron variant) continue to spread in the United States and around the world. Future adverse consequences of the COVID-19 pandemic may include, but are not limited to: a decline in enrollment (including a disproportional decline in enrollment by international students); a decline in demand for university housing; a decline in demand for University programs that involve travel or that have international connections; cancellation, postponement and/or reduced attendance for athletic events; and an increase in costs associated with purchasing of personal protective equipment and implementing community-wide testing programs. University management continues to monitor the course of the pandemic and is prepared to take additional measures to protect the health of the university community and promote the continuity of its academic mission.

Cautionary Note Regarding Forward-Looking Statements

Certain information provided by the university, including written as outlined above or oral statements made by its representatives, may contain forward-looking statements as defined in the Private Securities Litigation Reform Act of 1995.

All statements, other than statements of historical facts, which address activities, events or developments that the university expects or anticipates will or may occur in the future contain forward-looking information.

In reviewing such information, it should be kept in mind that actual results may differ materially from those projected or suggested in such forward-looking information. This forward-looking information is based upon various factors and was derived using various assumptions. The university does not undertake to update forward-looking information contained in this report or elsewhere to reflect actual results, changes in assumptions or changes in other factors affecting such forward-looking information.

THE OHIO STATE UNIVERSITY STATEMENTS OF NET POSITION June 30, 2022 and June 30, 2021 (in thousands)

	Primary Institution		Discretely Compon	Presented	Total University			
	2022	2021	2022	2021	2022	2021		
ASSETS AND DEFERRED OUTFLOWS:								
Current Assets:								
Cash and cash equivalents	\$ 303,120	\$ 677,386	\$ 176,481	\$ 260,758	\$ 479,601	\$ 938,144		
Temporary investments Accounts receivable, net	2,547,715 772,050	2,693,789 736,500	83,296 76,710	1,614 68,725	2,631,011 848,760	2,695,403 805,225		
Notes receivable - current portion, net	25,231	25,231	70,710	-	25,231	25,231		
Pledges receivable - current portion, net	61,395	63,799	-	-	61,395	63,799		
Accrued interest receivable	23,109	19,848	-	-	23,109	19,848		
Inventories and prepaid expenses	141,765	146,817	4,636	4,623	146,401	151,440		
Investments held under securities lending program	201,994	118,266	-	-	201,994	118,266		
Amounts due from (to) primary institution Total Current Assets	(68,401) 4,007,978	(75,422) 4,406,214	68,401 409,524	75,422 411,142	4,417,502	4,817,356		
Total Current Assets	4,007,370	4,400,214	403,324	411,142	4,417,302	4,017,330		
Noncurrent Assets:								
Unexpended bond proceeds	679,040	276,243			679,040	276,243		
Notes receivable, net	18,413	36,766	800	800	19,213	37,566		
Pledges receivable, net	116,230 441,127	97,441 275,182	-	-	116,230 441,127	97,441 275,182		
Net other post-employment benefit asset Long-term investment pool	6,960,782	7,041,973	-		6,960,782	7,041,973		
Other long-term investments	301,855	348,227	_	_	301,855	348,227		
Leases receivable, net	38,136	37,427	17,136	15,184	55,272	52,611		
Amounts due from (to) primary institution - leases	(67,181)	(71,086)	67,181	71,086	-	-		
Other noncurrent assets	226,571	202,911	2,336	557	228,907	203,468		
Capital assets, net	7,194,565	6,408,423	388,582	344,439	7,583,147	6,752,862		
Total Noncurrent Assets	15,909,538	14,653,507	476,035	432,066	16,385,573	15,085,573		
Total Assets Deferred Outflows:	19,917,516	19,059,721	885,559	843,208	20,803,075	19,902,929		
Pension	584,364	339,679	-	-	584,364	339,679		
Other post-employment benefits	11,545	104,182	-	-	11,545	104,182		
Other deferred outflows	22,505	23,739			22,505	23,739		
Total Deferred Outflows	618,414	467,600			618,414	467,600		
Total Assets and Deferred Outflows	\$ 20,535,930	\$ 19,527,321	\$ 885,559	\$ 843,208	\$ 21,421,489	\$ 20,370,529		
LIABILITIES, DEFERRED INFLOWS AND NET POSITION:								
Current Liabilities:								
Accounts payable and accrued expenses	\$ 757,606	\$ 774,841	\$ 25,595	\$ 33,586	\$ 783,201	\$ 808,427		
Medicare advance payment program	79,601	254,854	-	10,191	79,601	265,045		
Deposits and advance payments for goods and services	447,404 109,458	371,040 69,993	2,711	1,992 2,686	450,115	373,032		
Current portion of bonds, notes and leases payable Long-term bonds payable, subject to remarketing	275,000	289,970	3,479	2,080	112,937 275,000	72,679 289,970		
Liability under securities lending program	201,994	118,266	-	-	201,994	118,266		
Other current liabilities	101,989	110,847	37,336	11,801	139,325	122,648		
Amounts due to (from) primary institution	(114,610)	(135,230)	114,610	135,230	-	-		
Amounts due to (from) primary institution - leases	(4,979)	(3,855)	4,979	3,855				
Total Current Liabilities	1,853,463	1,850,726	188,710	199,341	2,042,173	2,050,067		
Noncurrent Liabilities:								
Bonds, notes and leases payable	3,357,938	2,736,441	30,947	29,196	3,388,885	2,765,637		
Concessionaire payable	355,786	223,721	-	-	355,786	223,721		
Net pension liability	1,497,793	2,679,333	-	-	1,497,793	2,679,333		
Net other post-employment benefit liability Compensated absences	15,661 203,505	22,683 214,428	-	-	15,661 203,505	22,683 214,428		
Self-insurance accruals	100,497	85,083	-	-	100,497	85,083		
Amounts due to third-party payors - Health System	87,306	90,403	-	-	87,306	90,403		
Irrevocable split-interest agreements	32,324	36,328	-	-	32,324	36,328		
Refundable advances for Federal Perkins loans	23,238	26,005	-	-	23,238	26,005		
Advance from concessionaire	963,663	980,953	-	-	963,663	980,953		
Other noncurrent liabilities Amounts due to (from) primary institution	276,345 (192,948)	283,643 (169,670)	4,700 192,948	4,701 169,670	281,045	288,344		
Amounts due to (from) primary institution - leases	(54,198)	(29,800)	54,198	29,800	-	-		
Total Noncurrent Liabilities	6,666,910	7,179,551	282,793	233,367	6,949,703	7,412,918		
Total Liabilities	8,520,373	9,030,277	471,503	432,708	8,991,876	9,462,985		
Deferred Inflows:								
Parking service concession arrangement	387,652	397,283	_	_	387,652	397,283		
Pension	1,681,316	682,490	_	_	1,681,316	682,490		
Other post-employment benefits	456,823	675,698	-	-	456,823	675,698		
Other deferred inflows	169,650	109,895	136,516	142,939	306,166	252,834		
Total Deferred Inflows	2,695,441	1,865,366	136,516	142,939	2,831,957	2,008,305		
Net Position: Net investment in capital assets	3,706,371	3,473,109	99,036	263,879	3,805,407	3,736,988		
Restricted:	1 070 606	1 700 204		_	1 070 690	1 700 204		
Nonexpendable Expendable	1,870,686 1,560,810	1,789,304 2,030,928	-	-	1,870,686 1,560,810	1,789,304 2,030,928		
Unrestricted	2,182,249	1,338,337	178,504	3,682	2,360,753	1,342,019		
Total Net Position	9,320,116	8,631,678	277,540	267,561	9,597,656	8,899,239		
Total Liabilities, Deferred Inflows and Net Position	\$ 20,535,930	\$ 19,527,321	\$ 885,559	\$ 843,208	\$ 21,421,489	\$ 20,370,529		

THE OHIO STATE UNIVERSITY STATEMENTS OF REVENUES, EXPENSES, AND CHANGES IN NET POSITION Years ended June 30, 2022 and June 30, 2021 (in thousands)

(in thousands)	Primary			Discretely Presented					Total					
	Institution		Component Units				University							
		2022		2021		2022		2021		2022		2021		
Operating Revenues:							_							
Student tuition and fees (net of scholarship allowances of \$268,547 and \$234,727, respectively)	\$	1,003,060	\$	869,740	\$	-	\$	-	\$	1,003,060	\$	869,740		
Federal grants and contracts		426,216		407,404		18,735		18,969		444,951		426,373		
State grants and contracts		85,976		76,611		-		-		85,976		76,611		
Local grants and contracts		32,538		27,538		-				32,538		27,538		
Private grants and contracts		269,344		272,468		55,721		37,461		325,065		309,929		
Sales and services of educational departments Sales and services of auxiliary enterprises (net of scholarship		166,121 364,308		168,707 175,961		10,028 -		10,053 -		176,149 364,308		178,760 175,961		
allowances of \$42,872 and \$26,375, respectively)														
Sales and services of the OSU Health System, net		4,178,956		3,952,605						4,178,956		3,952,605		
Sales and services of OSU Physicians, Inc., net		-		-		701,680		647,601		701,680		647,601		
Other operating revenues		67,957		39,150		4,132		1,847		72,089		40,997		
Total Operating Revenues	_	6,594,476	_	5,990,184	_	790,296		715,931	_	7,384,772		6,706,115		
Operating Expenses: Educational and General:														
Instruction and departmental research		1,027,196		957,504		8,597		7,782		1,035,793		965,286		
Separately budgeted research		502,475		436,886		22,769		21,110		525,244		457,996		
Public service		147,900		139,565		9,950		6,209		157,850		145,774		
Academic support		235,370		190,097		9,930		0,209		235,370		190,097		
Student services		86.345		52,086		_				86,345		52,086		
Institutional support		261.348		220,675		26.153		20.883		287,501		241,558		
Operation and maintenance of plant		127,294		95,672		1,031		717		128,325		96,389		
Scholarships and fellowships		164,093		146,187		1,001		-		164,093		146,187		
Auxiliary enterprises		351,554		205,928		_				351,554		205,928		
OSU Health System		3,236,935		2,728,378		_		_		3,236,935		2,728,378		
OSU Physicians, Inc.		-		2,720,070		681,610		597,475		681,610		597,475		
Depreciation and amortization		494,360		460,478		23,585		18,973		517,945		479,451		
Total Operating Expenses		6,634,870	_	5,633,456		773,695		673,149		7,408,565	_	6,306,605		
Net Operating Income (loss)		(40,394)		356,728		16,601		42,782		(23,793)		399,510		
Non-operating Revenues (Expenses):														
State share of instruction and line-item appropriations		493,248		486,115		-		-		493,248		486,115		
Federal subsidies for Build America Bonds interest		11,304		10,790		-		-		11,304		10,790		
Federal non-exchange grants		64,077		66,124		-		-		64,077		66,124		
Federal COVID-19 assistance programs		168,967		150,037		11,686		-		180,653		150,037		
State non-exchange grants		34,591		13,246		-		-		34,591		13,246		
Gifts		233,381		129,723		-				233,381		129,723		
Net investment income (loss)		(292,335)		1,859,173		(8,379)		1,753		(300,714)		1,860,926		
Interest expense on plant debt		(158,501)		(128,780)		(5,456)		(4,028)		(163,957)		(132,808)		
Other non-operating revenues (expenses)		(104)		46,890		(5,655)		(30,445)		(5,759)		16,445		
Net Non-operating Revenue (Expenses)	_	554,628	_	2,633,318	_	(7,804)	-	(32,720)	_	546,824		2,600,598		
Income before Other Changes in Net Position		514,234		2,990,046		8,797		10,062		523,031		3,000,108		
Other Changes in Net Position:														
State capital appropriations		52,886		63,988		-		-		52,886		63,988		
Private capital gifts		44,112		78,942		-		-		44,112		78,942		
Additions to permanent endowments		77,206		63,157		. .				77,206		63,157		
Capital contributions and changes in net position				6,923		1,182		941		1,182		7,864		
Total Changes in Net Position		174,204	_	213,010	_	1,182		941		175,386		213,951		
Increase in Net Position		688,438		3,203,056		9,979		11,003		698,417		3,214,059		
Net Position - Beginning of Year Beginning of year, as previously reported		8,631,678		5,424,494		267,561		257,827		8,899,239		5,682,321		
Cumulative effect of accounting change		0,031,076		5,424,494 4,128		201,301		(1,269)		o,oaa,∠aa -		2,859		
Beginning of year, as restated		8,631,678	_	5,428,622		267,561		256,558		8,899,239	_	5,685,180		
Net Position - End of Year	\$	9,320,116	\$	8,631,678	\$	277,540	\$	267,561	\$	9,597,656	\$	8,899,239		
NOTE SOMOTI - ETIC OF TOUR	Ψ	0,020,110	Ψ	0,001,070	Ψ	211,040	Ψ	201,001	Ψ	3,007,000	Ψ	0,000,200		

The accompanying notes are an integral part of these financial statements.

THE OHIO STATE UNIVERSITY STATEMENTS OF CASH FLOWS Years Ended June 30, 2022 and June 30, 2021 (in thousands)

(in the detailed)	Primary Institution		Discretely Presented Component Units			Total University			
	_	2022	2021	2022	2021	_	2022	2021	
Cash Flows from Operating Activities:	_					_			
Tuition and fee receipts	\$	868.342 \$	758.837 \$	- \$	_	\$	868,342 \$	758.837	
Grant and contract receipts	•	814,127	746,479	69,443	77,991	Ψ.	883,570	824,470	
Receipts for sales and services		4,556,007	4,227,793	708,039	599,436		5,264,046	4,827,229	
Receipt from energy concessionaire		16,408	-	-	-		16,408	-	
Payments to or on behalf of employees		(3,109,359)	(2,771,435)	(530,930)	(435,974)		(3,640,289)	(3,207,409)	
University employee benefit payments		(790,577)	(784,093)	(113,828)	(98,310)		(904,405)	(882,403)	
Payments to vendors for supplies and services		(2,757,473)	(2,405,751)	(136,548)	(17,339)		(2,894,021)	(2,423,090)	
Payments to students and fellows		(151,727)	(133,905)	-	-		(151,727)	(133,905)	
Student loans issued		(4,092)	(3,764)	-	-		(4,092)	(3,764)	
Student loans collected		12,263	9,778	-	-		12,263	9,778	
Student loan interest and fees collected		1,437	911	-	-		1,437	911	
Other receipts (payments)		11,238	(33,037)	-	-		11,238	(33,037)	
Net cash provided (used) by operating activities	_	(533,406)	(388,187)	(3,824)	125,804		(537,230)	(262,383)	
Cash Flows from Noncapital Financing Activities:									
State share of instruction and line-item appropriations		493,248	486.115				493.248	486,115	
Non-exchange grant receipts		98,668	79,370	2,098	-		100,766	79,370	
Federal COVID-19 assistance programs		168,967	144,286	31,565			200,532	144,286	
Gift receipts for current use		206,882	93,413	31,303			206,882	93,413	
Additions to permanent endowments		77,206	63,157	_	_		77,206	63,157	
Drawdowns of federal direct loan proceeds		320,043	310,679	_	_		320,043	310,679	
Disbursements of federal direct loans to students		(317,934)	(312,319)	_	_		(317,934)	(312,319)	
Amounts received from irrevocable split-interest agreements		750	10,192	_	_		750	10,192	
Amounts paid to annuitants and life beneficiaries		(2,191)	(2,063)	_	_		(2,191)	(2,063)	
Agency funds receipts		5,588	5,052	_	_		5,588	5,052	
Agency funds disbursements		(5,051)	(4,546)	_	_		(5,051)	(4,546)	
Other receipts		14,283	16,223	(7,562)	8,784		6,721	25,007	
Net cash provided by noncapital financing activities	_	1,060,459	889,559	26,101	8,784		1,086,560	898,343	
Cash Flows from Capital Financing Activities:									
Proceeds from capital debt		739,775	_	29,478	1,596		769,253	1,596	
State capital appropriations		-	67,302	-	-		-	67,302	
Gift receipts for capital projects		56,061	78,197	-	-		56,061	78,197	
Payments for purchase or construction of capital assets		(1,055,311)	(891,524)	(37,332)	(66,540)		(1,092,643)	(958,064)	
Principal payments on capital debt and leases		(77,741)	(81,554)	(3,339)	(6,023)		(81,080)	(87,577)	
Interest payments on capital debt and leases		(156,512)	(128,056)	(4,548)	(4,010)		(161,060)	(132,066)	
Federal subsidies for Build America Bonds interest		15,921	10,790		- 1		15,921	10,790	
Net cash (used) by capital financing activities	_	(477,807)	(944,845)	(15,741)	(74,977)		(493,548)	(1,019,822)	
Cash Flows from Investing Activities:									
Net (purchases) sales of temporary investments		-	(882,182)	-	13,852		-	(868,330)	
Purchases of investments		(8,034,259)	(3,985,959)	(81,916)			(8,116,175)	(3,985,959)	
Proceeds from sales and maturities of investments		7,187,502	3,648,843	-	-		7,187,502	3,648,843	
Investment income (loss), net of related expenses		147,002	370,290	(8,897)	590		138,105	370,880	
Net cash provided (used) by investing activities	_	(699,755)	(849,008)	(90,813)	14,442	_	(790,568)	(834,566)	
Net Increase (Decrease) in Cash		(650,509)	(1,292,481)	(84,277)	74,053		(734,786)	(1,218,428)	
Cash and Cash Equivalents - Beginning of Year	_	953,629	2,246,110	260,758	186,705	_	1,214,387	2,432,815	
Cash and Cash Equivalents - End of Year	\$	303,120 \$	953,629 \$	176,481 \$	260,758	\$	479,601 \$	1,214,387	

THE OHIO STATE UNIVERSITY STATEMENTS OF CASH FLOWS, Cont'd Years Ended June 30, 2022 and June 30, 2021 (in thousands)

Reconciliation of Net Operating Income (Loss) to Net Cash Used by Operating Activities:			Primary Institution		Discretely Presented Component Units			Total Universi	ty
Cash Used by Operating Activities:			2022	2021	2022	2021		2022	2021
Communication (Communication (Comm	,								
Adjustments to reconcile net operating income (loss) to net cash provided (used) by operating activities: Depreciation and amortization expense Changes in assets and liabilities: Accounts receivable, net (41,927) (211,658) (9,298) (1,390) (13,343) (2,099) (7,763) Leases receivable, net (709) 5,580 (1,390) (13,343) (2,099) (7,763) Amounts due from (to) primary institution - leases (3,905) (1,590) (648) Inventories and prepaid expenses (5,053) 20,156 (13) (354) (5,040) (1,941) Amounts due form primary institution (9,679) (99,948) (16,354) (54,945) (26,033) (38,035) Accrued interest receivable, net (1,590) (648) (1,590) (648) Inventories and prepaid expenses (5,053) 20,156 (13) (354) (5,040) (1,941) Amounts due toffrom primary institution (9,679) (99,948) (16,354) (54,945) (26,033) (38,003) Amounts due toffrom primary institution - leases (15,522) (15,504) (265,522) (15,504) (1,941) Amounts due toffrom primary institution - leases (15,204) (234,551) (165,945) (197,281) Deferred outflows (152,046) (234,551) (152,048) (234,551) Deferred outflows (152,046) (234,551) (152,048) (234,551) Accounts payable and accrued liabilities (54,431) (190,622) (1,890) (665) (13,90) (665) Self-insurance accruals (154,444) (2,845) (15,944) (22,455) Self-insurance accruals (154,444) (2,845) (15,944) (22,455) Self-insurance accruals (15,945) (19,923) (4,270) (15,944) (22,455) Self-insurance accruals (15,945) (19,923) (4,270) (15,944) (22,455) Compensated absences (10,923) (4,270) (10,923) (4,270) Advance from concessionaire (17,290) (21,816) Net other post-employment benefit liability (17,022) (1,436,889) Deferred inflows (17,022) (1,436,889) (1,190,84) (1,190,89) Deferred inflows (1,436,89) (1,436,89) (1,190,89) (1,190,89) Deferred inflows (1,504) (1,436,89) Deferred inflows (1,504) (1,436,89) Deferred inflows (1,504) (1,436,89) Deferred inflows (1,504) (1,436,89) Deferred inflows (1,504)	* * *	_	(40.004) 0	050 700 0	40.004.0	40.704		(00 700) #	000 540
Change in assets and liabilities: Change in assets and liabili		\$	(40,394) \$	356,728 \$	16,601 \$	42,784	\$	(23,793) \$	399,512
Dependition and amortization expense	,								
Changes in assets and liabilities:	. , , , , ,		10.1.000	100 170	00.505	40.070		547.045	170 151
Leases receivable, net	·		494,360	460,478	23,585	18,973		517,945	479,451
Cases receivable, net	· ·								
Amounts due from (to) primary institution - leases 3,905) - - - - 1,000 3,000 - - - 1,000 5,033 - - - 1,1590 6,833 - - - 1,1590 6,833 - - - 1,1590 6,833 - - - 1,1590 6,833 - - - 1,1590 6,833 - - - - 1,1590 6,833 - <th< td=""><td></td><td></td><td></td><td> ,</td><td></td><td>-</td><td></td><td>, , ,</td><td> ,</td></th<>				,		-		, , ,	,
Notes receivable, net 4,070 5,359 - 474 4,070 5,833 Accrued interest receivable (1,590) (648) - (1,590) (648) Inventories and prepaid expenses 5,053 20,156 (13) (345) 5,040 19,811 Amounts due to (from) primary institution - leases (25,522) - - (25,522) - Net other post-employment benefit asset (165,945) (197,281) - - (152,048) 234,551 Deferred outflows (152,048) 234,551 - - (152,048) 234,551 Other noncurrent assets (14,521) (190,022) (1,890) (665) 12,631 (191,287) Accounts payable and accrued liabilities (54,431) 159,506 192 3,146 (45,239) 162,652 Medicare advance payment program (175,253) (20,061) (10,191) (2,394) (185,444) (22,455) Self-insurance accruals 15,414 (2,845) - - 15,414 (2,845) <td>•</td> <td></td> <td>, ,</td> <td>5,580</td> <td>(1,390)</td> <td>(13,343)</td> <td></td> <td></td> <td>(7,763)</td>	•		, ,	5,580	(1,390)	(13,343)			(7,763)
Accrued interest receivable (1,590)	* **			-	-	-			-
Inventories and prepaid expenses 5,053 20,156 (13) (345) 5,040 19,811	,			-,	-	474			
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Deferred outflows	, ,, ,		,		-	-		, , ,	
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Deferred inflows 770,320 554,997 (6,494) - 763,826 (554,997) 554,997 (22,745) 209,429 Other liabilities (22,928) 188,800 183 20,629 (22,745) 209,429 Net cash provided (used) by operating activities \$ (533,406) \$ (388,187) \$ (3,824) \$ 125,804 \$ (537,230) \$ (262,383) Non Cash Transactions: Construction in process in accounts payable \$ 1,601 \$ 47,852 \$ 3,205 \$ 9,414 \$ 4,806 \$ 57,266 Construction in process in concessionaire payable \$ 150,843 101,507 - - \$ 150,843 101,507 Capital lease \$ - \$ 11,316 - - - \$ 11,316 Stock gifts \$ 19,583 \$ 19,473 - - \$ 19,583 \$ 19,473 Net increase (decrease) in fair value of investments \$ (441,354) \$ 1,487,302 \$ (8,899) \$ 1,064 \$ (450,253) \$ 1,488,366	Net pension liability		(1,181,540)	(345,696)	-	-		(1,181,540)	(345,696)
Other liabilities (22,928) 188,800 183 20,629 (22,745) 209,429 Net cash provided (used) by operating activities \$ (533,406) (388,187) (3,824) 125,804 \$ (537,230) (262,383) Non Cash Transactions: Construction in process in accounts payable 1,601 47,852 3,205 9,414 4,806 57,266 Construction in process in concessionaire payable 150,843 101,507 - - 150,843 101,507 Capital lease - 11,316 - - - - 11,316 Stock gifts 19,583 19,473 - - 19,583 19,473 Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Net other post-employment benefit liability		(7,022)	(1,436,889)	-	-		(7,022)	(1,436,889)
Net cash provided (used) by operating activities \$ (533,406) \$ (388,187) \$ (3,824) \$ 125,804 \$ (537,230) \$ (262,383) Non Cash Transactions: Construction in process in accounts payable \$ 1,601 \$ 47,852 \$ 3,205 \$ 9,414 \$ 4,806 \$ 57,266 Construction in process in concessionaire payable 150,843 101,507 150,843 101,507 110,316 113,316 11,316 113,316 - 11,316 11,316 - 11,316	Deferred inflows		770,320	554,997	(6,494)	-			554,997
Non Cash Transactions: Construction in process in accounts payable 1,601 47,852 3,205 9,414 4,806 57,266 Construction in process in concessionaire payable 150,843 101,507 - - - 150,843 101,507 Capital lease - 11,316 - - - 11,316 Stock gifts 19,583 19,473 - - 19,583 19,473 Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Other liabilities	_	(22,928)	188,800	183	20,629	_	(22,745)	209,429
Construction in process in accounts payable 1,601 47,852 3,205 9,414 4,806 57,266 Construction in process in concessionaire payable 150,843 101,507 - - - 150,843 101,507 Capital lease - 11,316 - - - - 11,316 Stock gifts 19,583 19,473 - - - 19,583 19,473 Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Net cash provided (used) by operating activities	\$_	(533,406) \$	(388,187) \$	(3,824) \$	125,804	\$_	(537,230) \$	(262,383)
Construction in process in concessionaire payable 150,843 101,507 - - - 150,843 101,507 Capital lease - 11,316 - - - - 11,316 Stock gifts 19,583 19,473 - - - 19,583 19,473 Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Non Cash Transactions:								
Capital lease - 11,316 - - - 11,316 Stock gifts 19,583 19,473 - - 19,583 19,473 Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Construction in process in accounts payable	\$	1,601 \$	47,852 \$	3,205 \$	9,414	\$	4,806 \$	57,266
Stock gifts 19,583 19,473 - - 19,583 19,473 Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Construction in process in concessionaire payable		150,843	101,507	-	-		150,843	101,507
Net increase (decrease) in fair value of investments (441,354) 1,487,302 (8,899) 1,064 (450,253) 1,488,366	Capital lease		-	11,316	-	-		-	11,316
	Stock gifts		19,583	19,473	-	-		19,583	19,473
Forgiveness of debt 266 278 266 278	Net increase (decrease) in fair value of investments		(441,354)	1,487,302	(8,899)	1,064		(450,253)	1,488,366
	Forgiveness of debt		-	-	266	278		266	278
State capital appropriations 52,474 52,474 - 52,474 -	State capital appropriations		52,474	-	-	-		52,474	-

The accompanying notes are an integral part of these financial statements.

NOTE 1 — SUMMARY OF SIGNIFICANT ACCOUNTING AND REPORTING POLICIES

Organization

The Ohio State University (the "university") is a land grant institution created in 1870 by the Ohio General Assembly under provisions of the Morrill Act. The university is one of several state-supported universities in Ohio. It is declared by statute to be a body politic and corporate and an instrumentality of the State.

The university is governed by a Board of Trustees, which is granted authority under Ohio law to do all things necessary for the proper maintenance and continual successful operation of the university. Trustees are appointed by the governor, with the advice and consent of the state Senate. In 2005, the Ohio General Assembly voted to expand the Board from 11 to 17 members. The standard term for voting members of the Board is nine years. The Board also includes two non-voting student trustees who are appointed to two-year terms.

In 2009, the Board appointed its first charter trustee, which expanded the Board to 18 members. A maximum of three charter trustees may be appointed and removed by a vote of the Board. Charter trustees, who must be non-Ohio residents, are appointed to three-year terms and do not have voting privileges.

The Board of Trustees has responsibility for all the university's financial affairs and assets. The university operates largely on a decentralized basis by delegating this authority to its academic and support departments. The Board must approve the annual budgets for unrestricted academic and support functions, departmental earnings operations and restricted funds operations, but these budgets are managed at the department level.

Basis of Presentation

The accompanying financial statements present the accounts of the following, which constitute the primary government for financial reporting purposes:

- The Ohio State University and its hospitals and clinics
- Ohio Agricultural Research and Development Center
- The Ohio Technology Consortium (OH-TECH)

In addition, these financial statements include component units, i.e., legally separate organizations for which the university is financially accountable. Governmental Accounting Standards Board (GASB) Statement No. 14, *The Financial Reporting Entity,* as amended by Statement No. 61, *The Financial Reporting Entity: Omnibus* and Statement No. 80, *Blending Requirements for Certain Component Units – an amendment of GASB Statement No. 14.*, defines financial accountability.

The criteria for determining financial accountability include the following circumstances:

- Appointment of a voting majority of an organization's governing authority and the ability of the primary government (i.e., the university) to either impose its will on that organization or the potential for the organization to provide specific financial benefits to, or impose specific financial burdens on, the primary government, or;
- An organization is fiscally dependent on the primary government and provides specific financial benefits to, or imposes specific financial burdens on, the primary government.
- The primary government is financially accountable for an organization if its holding
 of a majority equity interest in that organization does not meet the definition of an
 investment.

The university's blended component units and the reasons for their inclusion in the university's financial statements are described below:

- The Ohio State University Foundation The fiscal dependency criteria apply to this not-for-profit fundraising organization, which operates exclusively for the benefit of The Ohio State University.
- **OSU Health Plan, Inc.** The university appoints a voting majority of the board for this organization, which provides medical benefit plan administration services to the university and its faculty and staff.
- Oval Limited The university holds all of the voting stock of this captive insurance entity, which was established by the university to provide medical malpractice coverage to physicians in the university's medical center.
- Pelotonia The fiscal dependency criteria apply to this not-for-profit fundraising organization, which operates exclusively for the benefit of The Ohio State University.

The component units listed above provide services entirely, or almost entirely, to the university or otherwise exclusively, or almost exclusively, benefit the university. Therefore, the transactions and balances for these organizations have been blended with those of the primary government, collectively referred to as the primary institution.

In addition to the blended component units described above, the university's financial statements include the following discretely presented component units:

- The Ohio State University Physicians, Inc. The university appoints a voting majority of the board of the medical practice group for physician faculty members in the Colleges of Medicine and Public Health.
- Campus Partners for Community Urban Redevelopment, Inc. This non-profit organization, which participates in the redevelopment of neighborhoods adjacent to the Columbus campus, is fiscally dependent on the university.
- Transportation Research Center of Ohio, Inc. The university appoints a voting majority of the board for this automotive research and testing facility in East Liberty, Ohio.

- Dental Faculty Practice Association, Inc. The university appoints a voting majority of the board for the dental practice group for faculty in the College of Dentistry.
- Science and Technology Campus Corporation (SciTech) This non-profit organization, which was established for further development of the university's Science and Technology Campus, is fiscally dependent on the university.

Summary financial statement information for the university's blended and discretely presented component units is provided in Notes 20 and 21. Audited financial statements for the discretely presented component units considered to be material to the university may be obtained from the Office of the Controller. A total university column in the financial statements is provided as memorandum only for purposes of additional analysis by users.

The university, as a component unit of the State of Ohio, is included as a discretely presented entity in the State of Ohio's Annual Comprehensive Financial Report.

Basis of Accounting

The financial statements of the university have been prepared in accordance with U.S. generally accepted accounting principles, as prescribed by the GASB. The university is reported as a special-purpose government engaged in business-type activities (BTA) on the accrual basis. Business type activities are those that are financed in whole or in part by fees charged to external parties for goods and services. In accordance with BTA reporting, the university presents Statements of Net Position; Statements of Revenues, Expenses and Changes in Net Position; Statements of Cash Flows; and Notes to the Financial Statements. In the financial statements, separate columns are presented for the *primary institution* (which includes the primary government and the blended component units), *discretely presented component units*, and the *total university*. The Notes to the Financial Statements include separate disclosures for the primary institution and the discretely presented component units, where relevant and material.

The university's financial resources are classified for accounting and reporting purposes into the following four net position categories:

- Net investment in capital assets: Capital assets, net of accumulated depreciation, and related debt attributable to the acquisition, construction or improvement of those assets.
- Restricted nonexpendable: Amounts subject to externally-imposed stipulations
 that they be maintained in perpetuity and invested for the purpose of generating
 present and future income, which may either be expended or added to principal by
 the university. These assets primarily consist of the original gift corpus of the
 university's permanent endowments.
- Restricted expendable: Amounts whose use is subject to externally-imposed stipulations that can be fulfilled by actions of the university pursuant to those stipulations or that expire by the passage of time.

Unrestricted: Amounts not subject to externally-imposed stipulations. Substantially
all unrestricted balances are internally designated for use by university departments
to support working capital needs, to fund related academic or research programs,
and to provide for unanticipated shortfalls in revenues and deviations in enrollment.

The university first applies resources in restricted net position when an expense or outlay is incurred for purposes for which resources in both restricted and unrestricted net position are available.

For internal financial management purposes, the university classifies financial resources into funds that reflect the specific activities, objectives or restrictions of the resources.

Cash and Investments

Cash and cash equivalents consist primarily of petty cash, demand deposit accounts, money market accounts, savings accounts, and investments with original maturities of ninety days or less. Such investments consist primarily of U.S. Government obligations, U.S. Agency obligations, repurchase agreements and money market funds.

Investments are reported at fair value. The average cost method is used for purposes of determining gains and losses on the sale of investments. The specific identification method is used for purposes of determining gains and losses on the sale of gifted securities.

The university holds investments in limited partnerships, private equity and other investments, which are generally reported at net asset value (NAV) of the university's interest used as a practical expedient to estimate fair value. NAVs are generally provided by the management of these limited partnerships. The purpose of this alternative investment class is to increase portfolio diversification and reduce risk due to the low correlation with other asset classes. Because these investments are not readily marketable, the estimated value is subject to uncertainty and, therefore, may differ from the value that would have been used had a ready market for the investments existed, and such differences could be material. As of June 30, 2022, the university has made commitments to limited partnerships totaling \$1,303,367 that have not yet been funded. These commitments may extend for a maximum of twelve years.

Investment income is recognized on an accrual basis. Interest and dividend income is recorded when earned.

Endowment Policy

All endowments are invested in the university's Long-Term Investment Pool, which consists of 6,172 Board authorized funds and 202 pending funds. Each named fund is assigned a number of shares in the Long-Term Investment Pool based on the value of the gifts, income-to-principal transfers, or transfers of operating funds to that named fund. For donor restricted endowments, the Uniform Prudent Management of Institutional Funds Act (UPMIFA), as adopted in Ohio, permits the university's Board of Trustees to appropriate an amount of realized and unrealized endowment appreciation as the Board deems prudent. The UPMIFA, as adopted in Ohio, establishes a 5% safe harbor of prudence for funds appropriated for expenditure. Net realized

and unrealized appreciation, after the spending rule distributions, is retained in the Long-Term Investment Pool, and the associated net position is generally classified as restricted-expendable.

Annual distributions to named funds in the Long-Term Investment Pool are computed using the share method of accounting for pooled investments. The annual distribution per share is 4.5% of the average fair value per share of the Long-Term Investment Pool over the most recent seven year period.

At June 30, 2022, the fair value of the university and Foundation gifted endowments is \$2,605,928, which is \$641,551 above the historical dollar value of \$1,964,377. Although the fair value of the gifted endowments in total exceeds the historical cost at June 30, 2022, there are 553 named funds that remain underwater (excluding income-to-principal transfers, or transfers of operating funds to that named fund). The fair value of these underwater funds at June 30, 2022 is \$190,543, which is \$14,675 below the historical dollar value of \$205,218.

At June 30, 2021, the fair value of the university and Foundation gifted endowments is \$2,678,895, which is \$811,004 above the historical dollar value of \$1,867,891. Although the fair value of the gifted endowments in total exceeds the historical cost at June 30, 2021, there are 191 named funds that remain underwater (excluding income-to-principal transfers, or transfers of operating funds to that named fund). The fair value of these underwater funds at June 30, 2021 is \$73,494, which is \$4,884 below the historical dollar value of \$78,338.

The depreciation on non-expendable endowment funds is recorded as a reduction to restricted non-expendable net position. Recovery on these funds is recorded as an increase in restricted non-expendable up to the historical value of each fund. Per UPMIFA (§ 1715.53(D)(C), the reporting of such deficiencies does not create an obligation on the part of the endowment fund to restore the fair value of those funds.

Gift Pledges Receivable

The university receives pledges and bequests of financial support from corporations, foundations and individuals. Revenue is recognized when a pledge representing an unconditional promise to pay is received and all eligibility requirements have been met. In the absence of such promise, revenue is recognized when the gift is received. In accordance with GASB Statement No. 33, Accounting and Financial Reporting for Non-exchange Transactions, endowment pledges are not recorded as assets until the related gift is received.

An allowance for uncollectible pledges receivable is provided based on management's judgment of potential uncollectible amounts and includes such factors as prior collection history, type of gift and nature of fundraising.

Inventories

The university's inventories, which consist principally of publications, general stores and other goods for resale by earnings operations, are valued at the lower of moving average cost or market. The inventories of the Health System, which consist principally of pharmaceuticals and operating supplies, are valued at cost on a first-in, first-out basis.

Capital Assets and Collections

Capital assets are long-life assets in the service of the university and include land, buildings, improvements, equipment, software and library books. The university applies capitalization thresholds of \$5,000 for moveable equipment, \$100,000 for capital projects, and \$500,000 for software (actual dollar amounts shown). Capital assets are stated at cost or acquisition value at date of gift. Depreciation of capital assets (excluding land and construction in progress) is provided on a straight-line basis over the following estimated useful lives:

Type of Asset	Estimated Useful Life
Improvements other than buildings	20 years
Buildings	10 to 100 years
Moveable equipment, software and furniture	5 to 15 years
Library books	10 years

The university does not capitalize works of art or historical treasures that are held for exhibition, education, research and public service. These collections are neither disposed of for financial gain nor encumbered in any way. Accordingly, such collections are not recognized or capitalized for financial statement purposes.

Advance Payments for Goods and Services

Advance payments for goods and services primarily consist of receipts relating to tuition, room, board, grants, contracts and athletic events received in advance of the services to be provided. Tuition and fees relating to the summer academic term are recorded as revenue in the year to which they pertain. The university will recognize revenue to the extent these services are provided over the coming fiscal year.

Derivative Instruments

Derivative instruments are reported at fair value in the Statements of Net Position. The university has entered into interest-rate swap agreements, which are considered effective hedging derivatives. Changes in the fair value of these instruments are reported as deferred outflows or deferred inflows in the Statements of Net Position. Additional information on derivative instruments is provided in Note 10.

Operating and Non-Operating Revenues and Expenses

The university defines operating activities, for purposes of reporting on the Statements of Revenues, Expenses, and Changes in Net Position, as those activities that generally result from exchange transactions, such as payments received for providing services and payments made for goods or services received. With the exception of interest expense on long-term indebtedness and certain expenses related to investments, substantially all university expenses are considered to be operating expenses. Certain significant revenue streams relied upon for operations are

recorded as non-operating revenues, including state appropriations, current-use gifts and net investment income. In addition, amounts provided to the university under Federal COVID-19 assistance grant programs are recognized as non-operating revenues as eligibility requirements are met.

Tuition, Room and Board

Student tuition and residence hall fees are presented net of scholarships applied to student accounts. Stipends and other payments made directly to students are presented as scholarship and fellowship expense. Fee authorizations provided to graduate teaching, research and administrative associates as part of an employment arrangement are presented in instruction, research and other functional categories of operating expense.

State Support

The university is a state-assisted institution of higher education which receives a student enrollment-based instructional subsidy from the State of Ohio. This subsidy, which is based upon a formula devised by the Ohio Board of Regents, is determined annually and is adjusted to state resources available.

The state also provides line-item appropriations which partially support the current operations of various activities, including clinical teaching expenditures incurred at The Ohio State University Health System and other health sciences teaching facilities, The Ohio State University Extension, the Ohio Agricultural Research and Development Center, and the Center for Labor Research.

In addition to current operating support, the State of Ohio provides funding for construction and renovation of major plant facilities on the university's campuses. This funding is reported as state capital appropriations, and the related facilities are reported as capital assets.

Government Grants and Contracts

Government grants and contracts normally provide for the recovery of direct and indirect costs and are subject to audit by the appropriate government agency. Federal funds are subject to an annual OMB Uniform Guidance audit. Recovery of related indirect costs is generally recorded at fixed rates negotiated for a period of one to three years.

The university generally considers grants, contracts and non-capital appropriations to be exchange transactions. Under these arrangements, the university provides a bargained-for benefit, typically in the form of instruction, research or public service programs, either directly to the funding entity or to its constituents. The overall scope and nature of these program activities is determined by the level of funding and the requirements set forth by these resource providers.

Federal COVID-19 Assistance Programs

In response to the COVID-19 outbreak, the federal government has provided support to individuals, companies and non-profit institutions in the form of loans, grants, tax changes and other types of relief. The university is a recipient of grant funds from several federal COVID-19

assistance programs, including Higher Education Emergency Relief Fund (HEERF) grants to students, HEERF institutional grants, Provider Relief Funds, FEMA Public Assistance funds, Shuttered Venue Operators grants and pass-through funding from the State of Ohio. Amounts provided to the university under these grant programs are recognized as non-operating revenues

in the Statements of Revenues, Expenses and Changes in Net Position as eligibility requirements

The university's Health System and OSU Physicians, a discretely presented component unit of the university, received advance payments under the Medicare Accelerated and Advance Payment program. These payments are considered short-term loans and are reported as current liabilities in the Statements of Net Position. Current liabilities for advance payments provided to the Health System totaled \$79,601 and \$254,854 at June 30, 2022 and 2021, respectively. Current liabilities for advance payments provided to OSU Physicians totaled zero and \$10,191 at June 30, 2022 and 2021, respectively.

OSU Health System Revenue

are met.

Net patient service revenue represents amounts received and the estimated realizable amounts due from patients and third-party payors for services rendered net of contractual allowances, charity care and bad debt expenses. Revenue received under third-party cost reimbursement agreements (primarily the federal Medicare and Medicaid programs) are subject to examination and retroactive adjustments by the agencies administering the programs. In the normal course of business, the Health System contests certain issues resulting from examination of prior years' reimbursement reports. The accompanying financial statements include provisions for estimated retroactive adjustments arising from such examinations and contested issues. The Health System recognizes settlements of protested adjustments or appeals upon resolution of the matters.

Health System patient service revenue amounts recognized from major payor sources (based on primary payor) for the years ended June 30, 2022 and 2021, respectively, are as follows:

		Primary I	nstitu	ution	
Payor	2022			2021	
Medicare	\$	1,055,544	\$	1,006,113	
Medicaid		553,121		532,386	
Managed Care:					
Anthem		707,125		636,140	
United Healthcare		474,790		470,125	
Other		908,194		889,689	
Self Pay		4,678		5,908	
Total net patient service revenue		3,703,452		3,540,361	
Add: Other Health System sales and services revenue		475,504		412,244	
Total Health System sales and services, net	\$	4,178,956	\$	3,952,605	

OSU Physicians Revenue

Net patient service revenue represents amounts received and the estimated realizable amounts due from patients and third-party payors for services rendered net of contractual allowances, charity care, self-pay discounts and bad debt expenses.

OSU Physicians (OSUP), a discretely presented component unit of the university, provides care to patients under various reimbursable agreements, including governmental and commercial payors (third party payors). These arrangements provide for payment for covered services at agreed-upon rates and under certain fee schedules and various discounts from charges. Provisions have been made in the financial statements for estimated contractual adjustments, representing the difference between the customary charges for services rendered and related reimbursements, and for administrative adjustments.

Charity Care and Community Benefit

Care is provided to patients regardless of their ability to pay. A patient is classified as charity care in accordance with policies established by the OSU Health System and OSUP. Because collection of amounts determined to qualify as charity care are not pursued, such amounts are written off and not reported as gross patient service revenue. OSU Health System and OSUP maintain records to identify and monitor the level of charity care provided, including the amount of charges foregone for services rendered. Net charity care costs for the OSU Health System for the years ended June 30, 2022 and 2021 are \$39,989 and \$51,138, respectively, after applying a decrease of \$15,370 and \$468, respectively, for support received under the Health Care Assurance Program (HCAP). HCAP is administered by the State of Ohio to help hospitals cover a portion of the cost of providing charity care. Charity care costs for OSUP for the years ended June 30, 2022 and 2021 are \$14,634 and \$7,458, respectively.

Management Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses during the reporting periods. Disclosure of contingent assets and liabilities at the dates of the financial statements may also be affected. Actual results could differ from those estimates.

Newly Issued Accounting Pronouncements

In March 2020, the GASB issued Statement No. 94, *Public-Private and Public-Public Partnerships and Availability Payment Arrangements*. This Statement addresses P3s and APAs and amends current guidance in GASB 60, Accounting and Financial Reporting for Service Concession Arrangements. In general, the Statement applies the right-of-use model set forth in GASB 87 to P3 arrangements and provides accounting and disclosure guidance for both transferors and operators of governmental assets. The Statement is effective for periods beginning after June 15, 2022 (FY2023).

In May 2020, the GASB issued Statement No. 96, Subscription-Based Information Technology Arrangements. This Statement requires recognition of a right-to-use subscription asset, initially measured as the sum of the initial subscription liability amount, payments made to the vendor before commencement of the subscription term, and capitalizable implementation costs. The subscription asset is then amortized over the subscription term. The requirements of this Statement are effective for fiscal years beginning after June 15, 2022 (FY2023).

In April 2022, the GASB issued Statement No. 99, *Omnibus 2022*. This Statement includes an extension of the use of LIBOR, clarifies provisions related to the new Statements for leases, public-private partnerships and subscription-based IT arrangements, and the classification and reporting of derivative instruments. The provisions related to LIBOR are effective upon issuance, the provisions related to leases, PPPs and SBITAs are effective for periods beginning after June 15, 2022 (FY2023), and the provisions related to derivatives are effective for periods beginning after June 15, 2023 (FY2024).

In June 2022, the GASB issued Statement No. 100, Accounting Changes and Error Corrections – an amendment to GASB Statement No. 62. This Statement requires that changes in accounting principles and error corrections be reported retroactively by restating prior periods, changes to or within the financial reporting entity be reported by adjusting beginning balances of the current period, and changes in accounting estimates be reported prospectively by recognizing the change in the current period. The Statement also provides guidance on related note disclosures and addresses corrections to Required Supplementary Information and Supplementary Information. The Statement is effective for fiscal years beginning after June 15, 2023 (FY2024).

In June 2022, the GASB issued Statement No. 101, *Compensated Absences*. This Statement requires that liabilities for compensated absences be recognized for leave that has not been used and leave that has been used but not yet paid in cash or settled through noncash means. A liability should be recognized for leave that has not been used if the leave is attributable to services already rendered, the leave accumulates, and the leave is more likely than not to be used for time off or otherwise paid in cash or settled through noncash means. The Statement is effective for fiscal years beginning after December 15, 2023 (FY2025).

University management is currently assessing the impact that implementation of GASB Statements No. 93, 94, 96, 99, 100 and 101 will have on the university's financial statements.

Implementation of GASB Statement No. 87

In fiscal year 2022, the university implemented GASB Statement No. 87, *Leases*. This standard establishes accounting and reporting for leases, based on the foundational principle that all leases are financings of the right to use an underlying asset for a period of time. Lessees record an intangible right-of-use asset and corresponding lease liability, based on the present value of payments expected to be made during the lease term. Lessors record a lease receivable and a corresponding deferred inflow of resources. The standard provides an exception for short-term leases with a maximum possible term of 12 months or less. The cumulative effect of adopting GASB Statement No. 87 was a \$4,128 increase in net position as of July 1, 2020 for the primary institution and a \$1,269 decrease in net position for the discretely presented component units as

of July 1, 2020. The effects of adopting Statement No. 87 retroactively to the university's financial statements for the year ended June 30, 2021 were as follows:

	As Previously Reported	Effect of Adoption of Statement No. 87	As Restated
2021 Statement of Net Position - Primary Institution			
Current Assets:			
Inventories and prepaid expenses	\$ 150,576 \$	(3,759) \$	146,817
Total current assets	4,409,973	(3,759)	4,406,214
Noncurrent Assets:			
Leases receivable	-	37,427	37,427
Capital assets, net	6,267,672	140,751	6,408,423
Amounts due from (to) primary institution for leases	-	(71,086)	(71,086)
Total noncurrent assets	14,546,415	107,092	14,653,507
Total assets	18,956,388	103,333	19,059,721
Current Liabilities:			
Current portion of bonds, notes and leases payable	62,746	7,247	69,993
Deposits and advance payments for goods and services			
Amounts due to (from) primary institution for leases - current	-	(3,855)	(3,855)
Total current liabilities	1,847,334	3,392	1,850,726
Noncurrent Liabilities:			
Bonds, notes and leases payable	2,690,587	45,854	2,736,441
Amounts due to (from) primary institution for leases - noncurrent	-	(29,800)	(29,800)
Total noncurrent liabilities	7,163,497	16,054	7,179,551
Total liabilities	9,010,831	19,446	9,030,277
Deferred Inflows:			
Other deferred inflows	40,766	69,129	109,895
Total deferred inflows	1,796,237	69,129	1,865,366
Net Position:			
Net investment in capital assets	3,471,509	1,600	3,473,109
Unrestricted	1,325,179	13,158	1,338,337
Total net position	\$ 8,616,920 \$	14,758 \$	8,631,678

		As Previously Reported	Effect of Adoption of Statement No. 87	As Restated
2021 Statement of Revenues, Expenses and Other Changes in Net Position - Primary Institution				
Other operating revenues	\$	37,198 \$	1,952 \$	39,150
Total operating revenues		5,988,232	1,952	5,990,184
Operating Expenses:				
Public service		139,588	(23)	139,565
Institutional support		229,993	(9,318)	220,675
Auxiliary enterprises		206,123	(195)	205,928
OSU Health System		2,733,141	(4,763)	2,728,378
Depreciation and amortization		457,950	2,528	460,478
Total operating expenses		5,645,227	(11,771)	5,633,456
Net operating income (loss)		343,005	13,723	356,728
Interest expense		(125,687)	(3,093)	(128,780)
Net Non-operating Revenue		2,636,411	(3,093)	2,633,318
Increase (Decrease) in Net Position		3,192,426	10,630	3,203,056
Net Position - Beginning of Year	\$	5,424,494 \$	4,128 \$	5,428,622
		As Previously Reported	Effect of Adoption of Statement No. 87	As Restated
2021 Statement of Cash Flows - Primary Institution		·		
Cash Flows from Operating Activities:				
Payments to vendors for supplies and services	\$	(2,419,832) \$	14,081 \$	(2,405,751)
Net cash provided (used) by operating activities		(402,268)	14,081	(388,187)
Cash Flows from Capital Financing Activities:				
Principal payments on capital debt and leases		(70,566)	(10,988)	(81,554)
Interest payments on capital debt and leases		(124,963)	(3,093)	(128,056)
Net cash (used) by capital financing activities		(930,764)	(14,081)	(944,845)
Reconciliation of Net Operating Income (Loss) to Net Cash Used by Operating Activities:				
Operating income (loss)		343,005	13,723	356,728
Adjustments to reconcile net operating income (loss)		3-3,003	13,723	330,728
to net cash provided (used) by operating activities:				
Depreciation expense		457,950	2,528	460,478
Changes in assets and liabilities:		437,330	2,328	400,478
Leases receivable			5,580	5,580
Deferred inflows		- 562,747	5,580 (7,750)	5,580 554,997
Not each provided (read) by approximation	\$	(402,268) \$		
Net cash provided (used) by operating activities	ς	(402 268) S	14,081 \$	(388,187)

2021 Statement of Net Position - Discretely Presented	As Previously Reported	Effect of Adoption of Statement No. 87	As Restated
Component Units			
Current Assets:			
Accounts receivable	\$ 69,268	\$ (543) \$	68,725
Total noncurrent assets	411,685	(543)	411,142
Noncurrent Assets:			
Leases receivable	-	15,184	15,184
Other noncurrent assets	1,222	(665)	557
Capital assets, net	296,209	48,230	344,439
Amounts due from (to) primary institution for leases	-	71,086	71,086
Total noncurrent assets	298,231	133,835	432,066
Total assets	709,916	133,292	843,208
Current Liabilities:			
Current portion of bonds, notes and leases payable	1,455	1,231	2,686
Deposits and advance payments for goods and services	4,742	(2,750)	1,992
Amounts due to (from) primary institution for leases - current	-	3,855	3,855
Total current liabilities	197,005	2,336	199,341
Noncurrent Liabilities:			
Bonds, notes and leases payable	14,911	14,285	29,196
Other noncurrent liabilities	59,960	(55,259)	4,701
Amounts due to (from) primary institution for leases - noncurrent	-	29,800	29,800
Total noncurrent liabilities	244,541	(11,174)	233,367
Total liabilities	441,546	(8,838)	432,708
Deferred Inflows:			
Other deferred inflows	-	142,939	142,939
Total deferred inflows	-	142,939	142,939
Net Position:			
Net investment in capital assets	271,367	(7,488)	263,879
Unrestricted	(2,997)	6,679	3,682
Total net position	\$ 268,370	\$ (809) \$	267,561

		As Previously	Effect of Adoption of	
		Reported	Statement No. 87	As Restated
2021 Statement of Revenues, Expenses and Other Changes in Net Position - Discretely Presented Component Units	-			
Other operating revenues	\$	- \$	1,847 \$	1,847
Total operating revenues		714,084	1,847	715,931
Operating Expenses:				
Institutional support		22,345	(1,462)	20,883
OSU Physicians		603,324	(5,849)	597,475
Depreciation and amortization		12,754	6,219	18,973
Total operating expenses		674,241	(1,092)	673,149
Net operating income (loss)		39,843	2,939	42,782
Interest expense		(1,549)	(2,479)	(4,028)
Increase (Decrease) in Net Position		10,543	460	11,003
Net Position - Beginning of Year	\$	257,827 \$	(1,269) \$	256,558
		As Previously	Effect of Adoption of	
		Reported	Statement No. 87	As Restated
2021 Statement of Cash Flows - Discretely Presented Component Units	_	·		
Cash Flows from Operating Activities:				
Payments to vendors for supplies and services	\$	(24,650) \$	7,311 \$	(17,339)
Net cash provided (used) by operating activities		118,493	7,311	125,804
Cash Flows from Capital Financing Activities:				,
Principal payments on capital debt and leases		(1,191)	(4,832)	(6,023)
Interest payments on capital debt and leases		(1,531)	(2,479)	(4,010)
Net cash (used) by capital financing activities	\$	(67,666) \$	(7,311) \$	(74,977)

Income Tax Status

As an integral part of the State of Ohio, the university is generally exempt from Federal and state income tax. The university is subject to the unrelated business income tax for activities that are not related to its tax-exempt purposes.

Related Parties

Members of the Board of Trustees, officers, and employees are subject to the university's conflict of interest policies, under which business and financial relationships must be disclosed and are subject to review and approval. Disclosures about the university's related parties, including its

discretely presented component units, are included in notes 1, 20, and 21 to the financial statements.

NOTE 2 — CASH AND CASH EQUIVALENTS

At June 30, 2022, the carrying amount of the primary institution's cash and cash equivalents is \$303,120 as compared to bank balances of \$362,460. The differences in carrying amount and bank balances are caused by outstanding checks and deposits in transit.

Of the bank balances, \$3,105 is covered by federal deposit insurance and \$359,355 is uninsured but collateralized by pools of securities pledged by the depository banks and held in the name of the respective banks.

At June 30, 2021, the carrying amount of the primary institution's cash, cash equivalents and restricted cash is \$953,629 as compared to bank balances of \$953,759. The differences in carrying amount and bank balances are caused by outstanding checks and deposits in transit. Of the bank balances, \$87,861 is covered by federal deposit insurance and \$865,898 is uninsured but collateralized by pools of securities pledged by the depository banks and held in the name of the respective banks.

At June 30, 2022, the carrying amount of the discretely presented component units' cash, cash equivalents and restricted cash is \$176,481 as compared to bank balances of \$174,704. The differences in carrying amount and bank balances are caused by outstanding checks and deposits in transit. Of the bank balances, \$2,007 is covered by federal deposit insurance and \$172,697 is uninsured but collateralized by pools of securities pledged by the depository banks and held in the name of the respective banks.

At June 30, 2021, the carrying amount of the discretely presented component units' cash, cash equivalents and restricted cash is \$260,758 as compared to bank balances of \$261,688. The differences in carrying amount and bank balances are caused by outstanding checks and deposits in transit. Of the bank balances, \$2,027 is covered by federal deposit insurance and \$259,661 is uninsured but collateralized by pools of securities pledged by the depository banks and held in the name of the respective banks.

NOTE 3 — INVESTMENTS

University investments are grouped into three major categories for financial reporting purposes: Temporary Investments, the Long-Term Investment Pool and Other Long-Term Investments.

Temporary Investments are amounts available for current operations. The target is to maximize value while protecting the liquidity of the assets. Temporary Investments include the following instruments with varying maturities: obligations of the U. S. Treasury and other federal agencies and instrumentalities, municipal and state bonds, corporate bonds, certificates of deposit, commercial paper, repurchase agreements, money market funds and equity and bond funds.

The Long-Term Investment Pool is a unitized investment pool consisting of gifted endowment funds of the university, gifted endowment funds of the OSU Foundation, and quasi-endowment funds which are internally designated funds that are to function as endowments.

The Long-Term Investment Pool operates with a long-term investment goal of preserving and maintaining the real purchasing power of the principal while allowing for the generation of a predictable stream of annual distribution.

The university's Board of Trustees approved the following thematic asset classes, allocation ranges and benchmarks for the Long-Term Investment Pool:

Asset Class	Range	Benchmark
Public Equity	30-55%	MSCI All Country World Index (ACWI) – Net Dividend (ND)
Private Equity (Includes Buyouts, Growth & Venture Capital)	15-40%	MSCI ACWI ND - 1-Qtr. Lag
Real Estate & Infrastructure	5-15%	Cambridge Associates Real Estate (50%) & Infrastructure (50%) – 1 Qtr. Lag
Legacy Investments	N/A	Return of Actual Underlying Funds
Hedge Funds (Includes Opportunistic Credit)	0-25%	HFRI Fund of Funds Composite (Final)
Cash & High-Grade Bonds	0-25%	Bloomberg Barclays U.S. Aggregate Bond

Other Long-Term Investments are non-unitized investments that relate primarily to gift arrangements between donors and the OSU Foundation. Included in this category are charitable remainder trust assets invested in equity and bond funds, OSU Foundation interests in unitrust, gift annuities, annuity trust and pooled income agreements, life insurance policies for which the OSU Foundation has been named owner and beneficiary, and certain real estate investments. Also included in this category are other private equity investments and investments in certain organizations that are affiliated with the OSU Health System.

U. S. Government and Agency securities are invested through trust agreements with banks who keep the securities in their safekeeping accounts at the Federal Reserve Bank in "book entry" form. The banks internally designate the securities as owned by or pledged to the university. Common stocks, corporate bonds and money market instruments are invested through trust agreements with banks who keep the investments in their safekeeping accounts at Northern Trust and BNY Mellon in "book entry" form. The banks internally designate the securities as owned by or pledged to the university.

The cash and cash equivalents amount represents cash held in the Long-Term Investment Pool by various investment managers. Such amounts were generated by gifts received throughout the fiscal year and sales of investments in the Long-Term Investment Pool. Subsequently, the cash and cash equivalents will be used to purchase long-term investments.

Total university investments by major category for the primary institution at June 30, 2022 and 2021 are as follows:

	Primary Institution						
		2022		2021			
Temporary Investments (a)	\$	3,226,755	\$	2,693,789			
Long-Term Investment Pool:							
Gifted Endowment - University		1,261,196		1,333,836			
Gifted Endowment - OSU Foundation		1,344,732		1,345,059			
Quasi Endowment - Operating		1,740,849		1,740,687			
Quasi Endowment - Designated		2,614,005		2,622,391			
Total Long-Term Investment Pool		6,960,782		7,041,973			
Securities Lending Collateral Investments		201,994		118,266			
Other Long-Term Investments		301,855		348,227			
Total Investments	\$	10,691,386	\$	10,202,255			

⁽a) At June 30, 2022, Temporary Investments included \$679,040 of unexpended bond proceeds. At June 30, 2021, unexpended bond proceeds totaling \$276,243 were reported as restricted cash. Unexpended bond proceeds represent bond proceeds restricted for capital expenditures.

Total university investments by investment type for the primary institution at June 30, 2022 are as follows:

	Primary Institution								
	Temporary Investments		Other	Securities					
	& Unexpended	Long-Term	Long-Term	Lending Collateral					
	Bond Proceeds	Investment Po	l Investments	Investments	Total				
U.S. equity	\$ 5	\$ 1,084,1	.00 \$ -	\$ -	\$ 1,084,105				
International equity	-	227,6	- 665	-	227,665				
Equity funds	89,406	1,107,5	21,637	-	1,218,566				
U.S. government obligations	502,453	(7	740) 756	-	502,469				
U.S. government agency									
obligations	178,298		-	-	178,298				
Corporate bonds and notes	1,885,371		-	-	1,885,371				
Bond funds	333,094	290,9	25 43,261	-	667,280				
Foreign government bonds	40,629		-	-	40,629				
Real assets	5	806,1	.52 22,080	-	828,237				
Hedge funds	-	688,0	79 -	-	688,079				
Private equity	-	2,274,4	97 192,339	-	2,466,836				
Commercial paper	146,685		-	-	146,685				
Cash equivalents	-	482,5	- 81	-	482,581				
Certificates of deposit	13,056		-	-	13,056				
Other	37,753		21,782	-	59,535				
Securities Lending Collateral Assets:									
Repurchase agreements	-		-	51,173	51,173				
Certificates of deposit	-		-	114,730	114,730				
Cash and other adjustments				36,091	36,091				
	\$ 3,226,755	\$ 6,960,7	'82 \$ 301,855	5 \$ 201,994	\$ 10,691,386				

Total university investments by investment type for the primary institution at June 30, 2021 are as follows:

	Primary Institution									
						Other		Securities		
	Ten	porary		Long-Term		Long-Term		Lending Collateral		
	Inve	stments		Investment Pool		Investments		Investments		Total
U.S. equity	\$	-	\$	1,159,881	\$	22,530	\$	-	\$	1,182,411
International equity		-		513,586		-		-		513,586
Equity funds		109,272		1,072,486		27,451		-		1,209,209
U.S. government obligations		183,912		605		844		-		185,361
U.S. government agency										
obligations		128,991		-		-		-		128,991
Corporate bonds and notes	1	663,809		-		-		-		1,663,809
Bond funds		505,032		539,956		25,602		-		1,070,590
Foreign government bonds		25,119		-		-		-		25,119
Real assets		5		762,928		23,577		-		786,510
Hedge funds		-		565,599		-		-		565,599
Private equity		-		2,058,643		225,102		-		2,283,745
Commercial paper		32,534		-		-		-		32,534
Cash and cash equivalents		-		368,289		-		-		368,289
Other		45,115		-		23,121		-		68,236
Securities Lending Collateral Assets:										
Repurchase agreements		-		-		-		72,042		72,042
Cash and other adjustments		-		-		-		46,224	ļ	46,224
	\$ 2	.693,789	\$	7,041,973	\$	348,227	\$	118,266	\$	10,202,255

The components of the net investment income and loss for the primary institution are as follows:

	 2022	2021
Interest and dividends	\$ 219,884	\$ 190,698
Net increase (decrease) in fair value of investments	(441,354)	1,727,863
Investment expenses	(70,865)	(59,388)
Total	\$ (292,335)	\$ 1,859,173

Information on Fair Value of Investments

Fair value is defined in the accounting standards as the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. Assets and liabilities reported at fair value are organized into a hierarchy based on the levels of inputs observable in the marketplace that are used to measure fair value.

Inputs are used in applying the various valuation techniques and take into account the assumptions that market participants use to make valuation decisions. Inputs may include price information, credit data, liquidity statistics, and other factors specific to the financial instrument. Observable inputs reflect market data obtained from independent sources. In contrast, unobservable inputs reflect the entity's assumptions about how market participants would value the financial instrument.

A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The following describes the hierarchy of inputs used to measure fair value and the primary valuation methodologies used for financial instruments measured at fair value on a recurring basis:

Level 1 – Prices based on unadjusted quoted prices in active markets that are accessible for identical assets or liabilities are classified as Level 1. Directly held equity securities, registered bond and equity funds, and other miscellaneous investments classified in Level 1 are valued using prices quoted in active markets that the custodian and university have the ability to access.

Level 2 – Quoted prices in the markets that are not considered to be active, dealer quotations or alternative pricing sources for similar assets or liabilities for which all significant inputs are observable, either directly or indirectly, are classified as Level 2. Level 2 investments include U.S. government agencies and obligations, corporate bonds, municipal bonds, foreign government bonds, repurchase agreements, commercial paper, and other debt related investments. The evaluated prices may be determined by factors which include, but are not limited to, market quotations, yields, maturities, call features, ratings, institutional size trading in similar groups of securities and developments related to specific securities.

Level 3 – Investments classified as Level 3 have significant unobservable inputs, as they trade infrequently or not at all. The inputs into the determination of fair value of these investments are based upon the best information in the circumstance and may require significant management judgment. Investments included in Level 3 consist primarily of the university's ownership in real estate, certain limited partnerships and equity positions in private companies.

Net Asset Value (NAV) – Investments whose fair value is measured at NAV are excluded from the fair value hierarchy. Investments in non-governmental entities that do not have a readily determinable fair value may be valued at NAV if the NAV is determined in accordance with the fair value measurement principles relevant to investment companies. Interests in investment funds with a NAV reported under an alternative basis or which meet the intent to sell criteria are reflected as Level 3 investments. As of June 30, 2022, the Long-Term Investment Pool does not have any funds held for secondary sale.

Investments measured at NAV consist mainly of non-publicly traded equity and bond funds, hedge funds, private equity, and other alternative funds. These assets are valued by the associated external investment manager/general partner and reviewed by the university using the most recent audited and unaudited financial statements available.

Not Leveled – Cash is not measured at fair value and, thus, is not subject to the fair value disclosure requirements. Cash not subject to such requirements amounted to \$140,606 and \$123,786 at June 30, 2022 and 2021, respectively.

Investments by fair value category for the primary institution at June 30, 2022 are as follows:

	Primary Institution									
	C	Quoted Prices		Significant		Significant	NAV as			
		in Active	Otl	her Observable	1	Unobservable		Practical		
		Markets		Inputs		Inputs		Expedient		Total
		(Level 1)		(Level 2)		(Level 3)		(NAV)		Fair Value
U.S. equity	\$	1,084,105	\$	-	\$	-	\$	- \$	5	1,084,105
International equity		227,665		-		-		-		227,665
Equity funds		244,466		-		-		974,100		1,218,566
U.S. government obligations		(740)		503,209		-		-		502,469
U.S. government agency										
obligations		-		178,298		-		-		178,298
Corporate bonds and notes		-		1,885,371		-		-		1,885,371
Bond funds		523,891		-		-		143,389		667,280
Foreign government bonds		-		40,629		-		-		40,629
Real assets		123,734		-		25,387		679,116		828,237
Hedge funds		-		-		-		688,079		688,079
Private equity		-		-		73,057		2,393,779		2,466,836
Commercial paper		-		146,685		-		-		146,685
Cash equivalents		341,975		-		-		-		341,975
Certificates of deposit		-		13,056		-		-		13,056
Other		-		37,208		22,327		-		59,535
Securities Lending Collateral Assets:										
Repurchase agreements		-		51,173		-		-		51,173
Certificates of deposit		-		114,730		-		-		114,730
Cash and other adjustments		-		36,091		-		-		36,091
	\$	2,545,096	\$	3,006,450	\$	120,771	\$	4,878,463 \$	5	10,550,780

Investments by fair value category for the primary institution at June 30, 2021 are as follows:

					Pri	mary Instituti	on		
	C	Quoted Prices		Significant		Significant		NAV as	
		in Active	Oth	er Observable		Unobservable		Practical	
		Markets		Inputs		Inputs		Expedient	Total
		(Level 1)		(Level 2)		(Level 3)		(NAV)	Fair Value
U.S. equity	\$	1,182,411	\$	-	\$	-	\$	-	\$ 1,182,411
International equity		513,586		-		-		-	513,586
Equity funds		357,359		-		-		851,850	1,209,209
U.S. government obligations		605		184,756		-		-	185,361
U.S. government agency									
obligations		-		128,991		-		-	128,991
Corporate bonds and notes		-		1,663,809		-		-	1,663,809
Bond funds		948,268		-		-		122,322	1,070,590
Foreign government bonds		-		25,119		-		-	25,119
Real assets		127,615		-		94,137		564,758	786,510
Hedge funds		-		-		-		565,599	565,599
Private equity		-		-		403,773		1,879,972	2,283,745
Commercial paper		-		32,534		-		-	32,534
Cash equivalents		244,503		-		-		-	244,503
Other		-		44,584		23,652		-	68,236
Securities Lending Collateral Assets:									
Repurchase agreements		-		72,042		-		-	72,042
Cash and other adjustments		-		46,224		-		-	46,224
	\$	3,374,347	\$	2,198,059	\$	521,562	\$	3,984,501	\$ 10,078,469

Additional Information on Investments Measured at the NAV

Additional information on fair values, unfunded commitments, remaining life and redemption for investments measured at the NAV for the primary institution at June 30, 2022 is as follows:

		Unfunded	Remaining		
	Fair Value	Commitments	Life	Redemption Notice Period	Redemption Restrictions
Equity and bond funds - non-public international	\$ 1,117,489	-	No limit	1 to 30 days	None
Hedge funds - absolute return, credit, long/short equities	688,079	36,000	No limit	30 to 180 day notice periods	Lock-up provisions ranging from none to 2 years; side pockets on a few funds
Private equity - private credit, buyouts, venture, secondary	2,393,779	1,037,889	1-12 years	Partnerships ineligible for redemption	Not redeemable
Real assets - natural resources, real estate, infrastructure	679,116	163,336	1-12 years	Partnerships ineligible for redemption	Not redeemable
	\$ 4,878,463	\$ 1,237,225	- -		

Additional Risk Disclosures for Investments

GASB Statements No. 3 and 40 require certain additional disclosures related to the liquidity, interest-rate, custodial, credit and foreign currency risks associated with deposits and investments.

Liquidity risk – The university's private equity and real asset investments in the Long-Term Investment Pool are illiquid and subject to redemption restrictions in accordance with their respective governing documents. The university's Investment Policy defines Operating Funds available for liquidity to exclude funds invested in the LTIP, bond proceeds and certain other funds designated by leadership and requires a minimum of 90 days liquidity be maintained at all times (based on the most recent Board of Trustees' approved budget for total expenditures).

Interest-rate risk – Interest-rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. Investments with interest rates that are fixed for longer periods are likely to be subject to more variability in their fair values as a result of future changes in interest rates. University Operating Funds are used to maintain adequate liquidity within an appropriate risk profile. Under the university's Investment Policy, the short-term working capital pool's weighted average duration may not exceed one (1) year. The intermediate-term investment pool's weighted average duration may not exceed five (5) years.

The maturities of the university's interest-bearing investments for the primary institution at June 30, 2022 are as follows:

		Pı	rima	ry Institution	1			
			lnv	estment Matu	uriti	es (in years)		
	Fair Value	Less than 1		1 to 5		6 to 10	Mor	e than 10
U.S. government obligations	\$ 502,469	\$ 152,176	\$	346,919	\$	3,374	\$	-
U.S. government agency								
obligations (a)	133,701	14		42,366		9,793		81,528
Corporate bonds	1,885,371	422,836		1,157,479		155,660		149,396
Bond funds	667,280	184,396		231,999		106,518		144,367
Foreign governmental bonds	40,629	32,380		7,937		-		312
Commercial paper	146,685	146,685		-		-		-
Certificates of deposit	13,056	13,056		-		-		-
Other governmental bonds (b)	37,209	16,601		20,430		178		-
Securities Lending Collateral:								
Repurchase agreements	51,173	51,173		-		-		-
Certificates of deposit	 114,730	114,730		-		-		-
Total	\$ 3,592,303	\$ 1,134,047	\$	1,807,130	\$	275,523	\$	375,603

- (a) TBA investments are excluded from this caption as there are no maturities.
- (b) Life insurance policies and hospital in investment subsidiaries are excluded from this caption as there are no maturities.

The maturities of the university's interest-bearing investments for the primary institution at June 30, 2021 are as follows:

		Pr	ima	ry Institution	1			
			Inv	estment Matu	ıriti	es (in years)		
	Fair Value	Less than 1		1 to 5		6 to 10	Mo	re than 10
U.S. government obligations	\$ 185,361	\$ 35,954	\$	147,691	\$	1,716	\$	-
U.S. government agency								
obligations (a)	128,784	1,351		23,943		33,736		69,754
Corporate bonds	1,663,809	373,786		968,603		154,052		167,368
Bond funds	1,070,590	337,094		478,241		114,304		140,951
Foreign governmental bonds	25,119	13,101		10,994		832		192
Commercial paper	32,534	32,534		-		-		-
Other governmental bonds (b)	44,584	5,803		31,732		253		6,796
Securities Lending Collateral:								
Repurchase agreements	 72,042	72,042		-		-		-
Total	\$ 3,222,823	\$ 871,665	\$	1,661,204	\$	304,893	\$	385,061

- (a) TBA investments are excluded from this caption as there are no maturities.
- (b) Life insurance policies and hospital in investment subsidiaries are excluded from this caption as there are no maturities.

Custodial credit risk – Custodial credit risk is the risk that, in the event of the failure of the custodian, university investments may not be recovered. It is the policy of the university to hold investments in custodial accounts, and the securities are registered solely in the name of the university. All investments are transacted with nationally reputable brokerage firms offering protection by the Securities Investor Protection Corporation.

Credit risk – Credit risk is the risk that an issuer or other counterparty to an investment will not fulfill its obligations to the holder of the investment. Credit quality information – as commonly expressed in terms of the credit ratings issued by nationally recognized statistical rating organizations such as Moody's Investors Service, Standard & Poor's, or Fitch Ratings – provides a current depiction of potential variable cash flows and credit risk. The university's Investment Policy requires Operating Funds to be invested in securities that, in aggregate, represent a credit quality of "A" or better (on a weighted average basis). Not more than five percent (5%) of operating funds will be invested in below investment grade securities.

Per GASB Statement No. 40, Deposit and Investment Risk Disclosures, an amendment to GASB Statement No. 3, securities with split ratings, or a different rating assignment, are disclosed using the rating indicative of the greatest degree of risk.

The credit ratings of the university's interest-bearing investments for the primary institution at June 30, 2022 are as follows:

						Primary Institu	tion					
	Total	AAA	AA	Α	BBB	BB	В	ccc	cc	С	D	Not Rated
U.S. government												
obligations	\$ 502,469 \$	- \$	502,469 \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	-
U.S. government												
agency obligations	178,297	3,275	91,903	77,258	2,673	-	-	-	-	-	-	3,188
Corporate bonds	1,885,371	171,241	116,673	592,039	656,678	29,977	7,080	-	-	-	-	311,683
Bond funds	667,280	116,283	79,439	115,267	142,641	24,895	26,323	16,887	24,412	5,460	266	115,407
Foreign government bonds	40,629	21,071	13,035	1,465	312	-	-	-	-	-	-	4,746
Commercial paper	146,685	-	7,949	87,040	-	-	-	-	-	-	-	51,696
Certificates of deposit	13,056	-	-	1,990	-	-	-	-	-	-	-	11,066
Other governmental bonds (a)	37,209	5,647	15,141	12,065	346	-	-	-	-	-	-	4,010
Securities Lending Collateral:												
Repurchase agreements	51,173	-	-	-	-	-	-	-	-	-	-	51,173
Certificates of deposit	114,730	-	-	105,750	-	-	-	-	-	-	-	8,980
Total	\$ 3,636,899 \$	317,517 \$	826,609 \$	992,874 \$	802,650 \$	54,872 \$	33,403 \$	16,887 \$	24,412 \$	5,460 \$	266 \$	561,949

(a) Life insurance policies and hospital in investment subsidiaries are excluded from this caption as they do not have a credit rating.

The credit ratings of the university's interest-bearing investments for the primary institution at June 30, 2021 are as follows:

	Primary Institution											
	Total	AAA	AA	Α	BBB	BB	В	ccc	cc	С	D	Not Rated
U.S. government												
obligations	\$ 185,361 \$	- \$	185,078 \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	- \$	283
U.S. government												
agency obligations	128,992	2,892	46,962	75,785	3,209	-	-	-	-	-	-	144
Corporate bonds	1,663,809	128,683	151,803	556,677	582,777	35,585	7,559	-	-	-	-	200,725
Bond funds	1,070,590	147,791	110,394	258,440	274,999	31,019	17,545	3,993	2,148	514	514	223,233
Foreign government bonds	25,119	1,069	13,189	6,364	2,195	-	2,024	-	-	-	-	278
Commercial paper	32,534	4,996	3,165	22,623	1,750	-	-	-	-	-	-	-
Other governmental bonds (a)	44,584	655	24,123	13,591	1,483	-	-	-	-	-	-	4,732
Securities Lending Collateral:												
Repurchase agreements	72,042	-	-	-	-	-	-	-	-	-	-	72,042
Total	\$ 3,223,031 \$	286,086 \$	534,714 \$	933,480 \$	866,413 \$	66,604 \$	27,128 \$	3,993 \$	2,148 \$	514 \$	514 \$	501,437

(a) Life insurance policies and hospital in investment subsidiaries are excluded from this caption as they do not have a credit rating.

Concentration of credit risk – Concentration of credit risk is the risk associated with a lack of diversification, such as having substantial investments in a few individual issuers, thereby exposing the university to greater risks resulting from adverse economic, political, regulatory, geographic or credit developments.

There is no investment in issuers other than U. S. government guaranteed securities that represents five percent or more of investments held at June 30, 2022 and June 30, 2021.

Foreign currency risk – Foreign currency risk is the risk that changes in exchange rates will adversely affect the fair value of an investment or deposit. A portion of the university's investments in limited partnerships are held in Sterling, Euro, and Francs. The university is indirectly invested in additional foreign currencies through commingled funds. Commingled funds may hold a variety of international assets that align with the university's investment strategy. Currency risk can be managed by hedging the foreign currency, but many managers choose to go unhedged and accept the currency risk, which also presents an opportunity if the foreign currency becomes more valuable than the U.S. Dollar on a relative basis.

At June 30, 2022, exposure to foreign currency risk for the primary institution is as follows:

			Primary Inst	titution		
				Corporate	Foreign	Partnerships
	Common	Equity	Bond	Bonds and	Government	and Hedge
	Stock	Funds	Funds	Notes	Bonds	Funds
Argentine Peso	\$ - \$	- \$	1 \$	- 5	\$ - \$	-
Australian Dollar	9,027	50,430	(26)	17,401	-	-
Brazilian Real	-	8,883	266	_	-	-
Canadian Dollar	9,592	28,833	59	7,540	-	-
Cayman Islands Dollar	-	1,617	-	_	-	-
Chilean Peso	42	61	23	-	-	-
Chinese Yuan/Yuan Renminbi	66,823	113,022	(329)	-	-	-
Colombian Peso	· -	23	15	-	-	-
Costa Rican Colon	-	35	-	-	-	-
Czech Koruna	_	469	29	_	_	-
Danish Krone	1,693	21,373	(14)	_	_	_
Egyptian Pound	-,	229	-	_	_	_
Euro	47,273	112,791	(3,545)	9,421	_	207,978
Great Britain Pound Sterling	13,475	31,819	(398)	18,300	_	215,642
Hong Kong Dollar	10,589	44,934	44	-	_	225,0.2
Hungarian Forint	10,303	682	14	_	_	_
Iceland Krona	_	-	1	_	_	_
Indian Rupee	_	70,900	45			
Indonesian Rupiah		8,057	(74)			
Israeli Shekel	_			_	1,199	_
	58,087	(76) 42,458	(1) 295	-	1,199	-
Japanese Yen Kenyan Shilling	38,087	42,458 361	295	-	-	-
	-	83	-	-	-	-
Kuwaiti Dinar	-		-	-	-	-
Malaysian Ringgit Mexican Peso	439	1,294 3,549	40	-	-	-
	439		40	-	-	-
Netherlands Antillean Guilder	750	143	-	-	-	-
New Taiwan Dollar	759	26,643		-	-	-
New Turkish Lira	-	57	(44)	-	-	-
New Zealand Dollar	-	81	2	-	-	-
Norwegian Krone	332	304	533	-	-	-
Pakistan Rupee	-	6	-	-	-	-
Peruvian Nuevo Sol	-	2	(6)	-	-	-
Philippine Peso	-	3,188	-	-	-	-
Polish Zloty	-	764	59	-	-	-
Qatar Rial	-	113	-	-	-	-
Romanian New Leu	-	6	-	-	-	-
Russian Ruble	-	573	15	-	-	-
Saudi Riyal	-	3,350	-	-	-	-
Singapore Dollar	-	10,984	-	-	-	-
South African Rand	-	3,090	(52)	-	-	-
South Korean Won	822	21,094	15	-	-	-
Sri Lanka Rupee	-	-	15	-	-	-
Swedish Krona	410	9,439	59	-	-	-
Swiss Franc	8,302	14,704	880	-	-	27,782
Thai Baht	-	2,020	-	-	-	-
UAE dirham	-	1,483	-	-	-	-
Vietnamese Dong	-	2	-	-	-	-
Total	\$ 227,665 \$	639,873 \$	(2,079) \$	52,662	\$ 1,199 \$	451,402

At June 30, 2021, exposure to foreign currency risk for the primary institution is as follows:

			Primary Ins	titution		
				Corporate	Foreign	Partnerships
	Common	Equity	Bond	Bonds and	Government	and Hedge
	Stock	Funds	Funds	Notes	Bonds	Funds
Argentine peso	\$ - \$	- \$	2 \$	- :	\$ - \$	-
Australian dollar	13,268	17,509	37	12,060	-	-
Brazilian real	904	14,857	42	-	-	-
Canadian dollar	34,149	19,543	18	10,822	-	-
Cayman Islands dollar	-	1,489	-	-	-	-
Chilean peso	82	62	19	-	-	-
Chinese yuan	(202)	75,481	8	-	-	-
Columbian peso	27	24	-	-	-	-
Czech Republic koruna	27	931	-	-	-	-
Danish krone	3,142	5,062	2	-	-	-
Egyptian pound	14	13	-	-	-	-
Euro	157,006	90,616	10	8,176	42	173,594
Great Britain pound sterling	57,597	55,533	36	28,686	-	284,936
Hong Kong dollar	37,836	57,016	-	-	-	-
Hungarian forint	41	31	-	-	-	-
Iceland krona	-	-	9	-	-	-
Indian rupee	1,739	26,530	9	-	-	-
Indonesian rupiah	192	2,123	10	-	-	-
Israeli shekel	123	237	-	-	5,860	-
Japanese yen	142,466	45,694	2	901	-	-
Kenyan shilling	-	504	-	-	-	-
Kuwaiti dinar	96	66	-	-	-	-
Malaysian ringgit	219	218	-	-	-	-
Mexican peso	301	4,933	52	-	-	-
New Taiwan dollar	6,806	33,480	-	-	-	-
New Turkish lira	41	592	-	-	-	-
New Zealand dollar	253	96	-	-	-	-
Norwegian krone	6,052	4,716	19	-	-	-
Pakistan rupee	-	8	-	-	-	-
Peruvian nuevo sol	-	1,165	(2)	-	-	-
Philippine peso	109	1,624	-	-	-	-
Polish zloty	109	466	-	-	-	-
Qatarian rial	109	85	-	-	-	-
Romanian new leu	-	4	-	-	-	-
Russian ruble	397	6,511	19	-	-	-
Saudi riyal	506	405	-	-	-	-
Singapore dollar	868	630	-	-	-	-
South African rand	616	4,737	-	-	-	-
South Korean won	13,612	42,995	54	-	-	-
Swedish krona	12,766	13,802	-	-	-	-
Swiss franc	21,945	11,961	(1)	-	-	26,429
Thailand bhat	274	3,809	-	-	-	· -
UAE dirham	96	91	-	-	-	-
Total	\$ 513,586 \$	545,649 \$	345 \$	60,645	5 5,902 \$	484,959

Securities Lending

The university has engaged in a securities lending program through its custodian bank of the Long-Term Investment Pool. Securities loaned at June 30, 2022 and 2021 were comprised completely of equities, and these loans were secured by collateral in the form of repurchase agreements, certificates of deposit, and cash and other adjustments. All loans must be secured by collateral amounting to no less than 102% of the current fair value of domestic securities loaned and no less than 105% of the current fair value of foreign securities loaned.

As of June 30, 2022, there was no credit risk on securities loaned due to the fair value of the collateral held being greater than the fair value of securities on loan to each individual broker. The university, the custodian, and the borrower each maintain the right to terminate a loan. Upon maturity or termination of a loan agreement, the custodian is contractually obligated to indemnify the university if the borrowers fail to return loaned securities and if liquidation of the collateral is insufficient to replace the value of the securities loaned. Noncash collateral cannot be pledged or sold by the university without a borrower's default. While earning fees received by the university during the loan period, cash collateral is simultaneously invested in short term, highly liquid securities in order to further increase interest earned while also matching a weighted average maturity of loans which is not to exceed 60 days.

As of June 30, 2022, securities loaned by the university amounted to a fair value of \$216,214 and were secured by collateral in the amount of \$222,411. The portion of this collateral that was received in cash amounted to \$201,994 and is reflected within the university's Statement of Net Position as a current asset and a corresponding current liability.

As of June 30, 2021, securities loaned by the university amounted to a fair value of \$163,207 and were secured by collateral in the amount of \$171,796. The portion of this collateral that was received in cash amounted to \$118,266 and is reflected within the university's Statement of Net Position as a current asset and a corresponding current liability.

NOTE 4 — ACCOUNTS, NOTES AND PLEDGES RECEIVABLE

Accounts receivable for the primary institution at June 30, 2022 and 2021 consist of the following:

	Primary I	nsti	tution
	2022		2021
Patient and other receivables - OSU Health System	\$ 625,406	\$	585,599
Grant and contract receivables	171,363		154,484
Tuition and fees receivable	18,273		16,486
Receivables for departmental and auxiliary sales and services	58,281		65,097
State and federal receivables	5,244		11,629
Other receivables	 2,120		3,379
Total receivables	 880,687		836,674
Less: Allowances for doubtful accounts	108,637		100,174
Total receivables, net	\$ 772,050	\$	736,500

Notes receivable consist primarily of Perkins and health professions loans and are net of an allowance for doubtful accounts of \$12,373 and \$16,294 at June 30, 2022 and 2021, respectively. Federal capital contributions to the Perkins loan programs represent advances which are ultimately refundable to the federal government.

The university has recorded \$187,043 in non-endowment pledges receivable and a related allowance for doubtful accounts of \$9,418 at June 30, 2022. The university recorded \$168,613 in non-endowment pledges receivable and a related allowance for doubtful accounts of \$7,372 at June 30, 2021.

Accounts receivable for the discretely presented component units at June 30, 2022 and 2021 consist of the following:

Discretely Presented

	 Compon	ent Units
	 2022	2021
Patient and other receivables - OSU Physicians	\$ 72,694	\$ 64,350
Other receivables	 14,732	11,895
Total receivables	 87,426	76,245
Less: Allowances for doubtful accounts	 10,716	7,520
Total receivables, net	\$ 76,710	\$ 68,725

NOTE 5 — CAPITAL ASSETS

Capital assets activity for the primary institution for the year ended June 30, 2022 is summarized as follows:

			Primary Ir	nstitution	
		Beginning		Retirements	Ending
		Balance	Additions	and Transfers	Balance
Capital assets not being depreciated:					
Land	\$	110,207 \$	28,107 \$	- \$	138,314
Intangibles		18,465	-	-	18,465
Construction in progress		1,021,812	1,088,759	256,661	1,853,910
Total non depreciable assets		1,150,484	1,116,866	256,661	2,010,689
Capital assets being depreciated:					
Improvements other than buildings		977,247	21,855	-	999,102
Buildings and fixed equipment		7,357,954	234,806	5,121	7,587,639
Movable equipment, furniture and software		1,989,614	159,177	87,003	2,061,788
Library books		200,191	2,710	-	202,901
Total depreciable assets		10,525,006	418,548	92,124	10,851,430
Less: Accumulated depreciation for					
Improvements other than buildings		432,067	47,772	-	479,839
Buildings and fixed equipment		3,488,749	243,503	956	3,731,296
Movable equipment, furniture and software		1,378,778	174,801	85,593	1,467,986
Library books		176,939	4,343	-	181,282
Total accumulated depreciation		5,476,533	470,419	86,549	5,860,403
Total depreciable assets, net		5,048,473	(51,871)	5,575	4,991,027
Capital assets, net excluding lease assets	\$	6,198,957 \$	1,064,995 \$	262,236 \$	7,001,716
Lease assets, net (Note 11)					192,849
Total capital assets, net as reported in statement of n	et positior	ı		\$	7,194,565

Capital assets activity for the primary institution for the year ended June 30, 2021 is summarized as follows:

		Primary In:	stitution	
	Beginning			Ending
	Balance	Additions	Retirements	Balance
Capital assets not being depreciated:				
Land \$	108,136 \$	2,071 \$	- \$	110,207
Intangibles	18,563	-	98	18,465
Construction in progress	880,224	141,588	-	1,021,812
Total non depreciable assets	1,006,923	143,659	98	1,150,484
Capital assets being depreciated:				
Improvements other than buildings	950,770	26,477	-	977,247
Buildings and fixed equipment	6,876,603	506,100	24,749	7,357,954
Movable equipment, furniture and software	1,703,984	310,588	24,958	1,989,614
Library books	196,468	3,942	219	200,191
Total depreciable assets	9,727,825	847,107	49,926	10,525,006
Less: Accumulated depreciation for				
Improvements other than buildings	388,856	43,211	-	432,067
Buildings and fixed equipment	3,277,305	231,631	20,187	3,488,749
Movable equipment, furniture and software	1,237,210	164,541	22,973	1,378,778
Library books	172,531	4,626	218	176,939
Total accumulated depreciation	5,075,902	444,009	43,378	5,476,533
Total depreciable assets, net	4,651,923	403,098	6,548	5,048,473
Capital assets, net excluding lease assets	5,658,846 \$	546,757 \$	6,646 \$	6,198,957
Lease assets, net (Note 11)				209,466
Total capital assets, net as reported in statement of net positio	n		\$	6,408,423

The increase in construction in progress of \$141,588 in fiscal year 2021 represents the amount of capital expenditures for new projects of \$947,213, net of assets placed in service of \$805,625.

Capital assets activity for the discretely presented component units for the year ended June 30, 2022 is summarized as follows:

		Di	scretely Presented C	omponent Units		
		Beginning		Retirements	Ending	
Total depreciable assets, net Capital assets, net Lease assets, net (Note 11)		Balance	Additions	and Transfers	Balance	
Capital assets not being depreciated:						
Land	\$	31,461	-	- \$	31,461	
Intangibles		-	-	-	-	
Construction in progress		50,159	36,752	20,888	66,023	
Total non depreciable assets		81,620	36,752	20,888	97,484	
Capital assets being depreciated:						
Improvements other than buildings		31,999	7,614	7,748	31,865	
Buildings and fixed equipment		241,820	13,274	5,144	249,950	
Movable equipment, furniture and software		35,282	22,303	17,218	40,367	
Total depreciable assets		309,101	43,191	30,110	322,182	
Less: Accumulated depreciation for						
Improvements other than buildings		18,203	3,355	2,549	19,009	
Buildings and fixed equipment		53,561	12,301	2,295	63,567	
Movable equipment, furniture and software		22,545	10,071	8,422	24,194	
Total accumulated depreciation and amortization		94,309	25,727	13,266	106,770	
Total depreciable assets, net		214,792	17,464	16,844	215,412	
Capital assets, net	\$	296,412 \$	54,216 \$	37,732 \$	312,896	
Lease assets, net (Note 11)				_	75,686	
Total capital assets, net as reported in statement of net posit	ion			\$	388,582	

Capital assets activity for the discretely presented component units for the year ended June 30, 2021 is summarized as follows:

	Discretely Presented Component Units								
		Beginning			Ending				
		Balance	Additions	Retirements	Balance				
Capital assets not being depreciated:									
Land	\$	31,461	-	- \$	31,461				
Intangibles		27	-	27	-				
Construction in progress		70,499	-	20,340	50,159				
Total non depreciable assets		101,987	-	20,367	81,620				
Capital assets being depreciated:									
Improvements other than buildings		28,269	3,739	9	31,999				
Buildings and fixed equipment		159,922	81,898	-	241,820				
Movable equipment, furniture and software		35,946	11,054	11,718	35,282				
Total depreciable assets		224,137	96,691	11,727	309,101				
Less: Accumulated depreciation for									
Improvements other than buildings		14,557	2,312	(1,334)	18,203				
Buildings and fixed equipment		46,474	7,119	32	53,561				
Movable equipment, furniture and software		21,815	3,323	2,593	22,545				
Total accumulated depreciation and amortization		82,846	12,754	1,291	94,309				
Total depreciable assets, net		141,291	83,937	10,436	214,792				
Capital assets, net	\$	243,278 \$	83,937 \$	30,803 \$	296,412				
Lease assets, net (Note 11)					48,027				
Total capital assets, net as reported in statement of net posit	tion			\$	344,439				

The decrease in construction in progress of \$20,341 in fiscal year 2021 represents the amount of capital expenditures for new projects of \$58,481, net of assets placed in service of \$78,822.

The university recognized asset retirement obligations (AROs) of \$17,934 at both June 30, 2022 and 2021. Assets with AROs include university facilities in which radioactive materials are used, facilities handling hazardous chemicals or waste and fuel storage tanks, all of which are subject to regulation by the State of Ohio. Liability estimates are based on decommissioning funding plans (for facilities handling radioactive materials) and historical experience (for hazardous waste facilities and fuel storage tanks). The estimated remaining useful lives of these assets range from 0 to 26 years.

NOTE 6 — ACCOUNTS PAYABLE AND ACCRUED EXPENSES

Accounts payable and accrued expenses for the primary institution at June 30, 2022 and 2021 consist of the following:

Payables to vendors for supplies and services
Accrued compensation and benefits
Retirement system contributions payable
Other accrued expenses
Total payables and accrued expenses

 Primary I	nstit	tution				
2022	2021					
\$ 506,899 167,942	\$	518,560				
167,942		132,067				
69,575		67,256				
 13,190		56,958				
\$ 757,606	\$	774,841				

NOTE 7 — DEPOSITS AND ADVANCE PAYMENTS FOR GOODS AND SERVICES

Deposits and advance payments for goods and services for the primary institution at June 30, 2022 and 2021 consist of the following:

	Primary Ins	titution	
	 2022	2021	L
Current deposits and advance payments:			
Tuition and fees	\$ 88,233	\$ 56	6,453
Departmental and auxiliary sales and services	94,718	68	8,105
Affinity agreements	1,848	7	7,177
Advance from concessionaire	24,648	21	1,786
Grant and contract advances	166,601	156	6,179
Health system advances	24,964	24	4,263
Other deposits and advance payments	 46,392	37	7,077
Total current deposits and advance payments	\$ 447,404	\$ 371	1,040
Noncurrent deposits and advance payments:			
Advance from concessionaire	\$ 963,663	\$ 980	0,953

Deposits and advance payments for goods and services for the discretely presented component units at June 30, 2022 and 2021 consist of the following:

		esented t Units			
		2022	2021		
Current deposits and advance payments:			_		
Unearned rental income and deposits - Campus Partners	\$	127 \$	113		
Unearned revenues - Transportation Research Center		2,412	1,597		
Unearned rental income - SciTech		172	282		
Total current deposits and advance payments	\$	2,711 \$	1,992		
Non-current deposits and advance payments:					
Unearned rental income and deposits - SciTech	\$	4,701 \$	4,700		
Total (shown as other non-current liabilities)	\$	4,701 \$	4,700		

NOTE 8 — SELF-INSURANCE ACCRUALS

The university maintains self-insurance programs for professional medical malpractice, employee health insurance and workers' compensation. Information on each of these programs is provided below.

Medical Malpractice

The university has established trusteed self-insurance funds for professional medical malpractice liability claims with a \$4,000 limit per occurrence and \$18,000 annual aggregate. The university self-insurance funds have insurance in excess of \$4,000 per occurrence through Oval Limited, a blended component unit of the university. Effective July 1, 2021, Oval Limited provides coverage with limits of \$85,000 per occurrence and in the aggregate.

Previous coverage levels for Oval Limited are as follows:

	Gross Oval Limit (Occurrence and Annual
Accident Period for Oval	Aggregate)
7/1/21 - 6/30/22	\$85,000
7/1/20 - 6/30/21	\$80,000
7/1/16 — 6/30/20	\$85,000
7/1/15 – 6/30/16	\$75,000
7/1/08 — 6/30/15	\$55,000
7/1/06 — 6/30/08	\$40,000
7/1/05 — 6/30/06	\$35,000
7/1/02 - 6/30/05	\$25,000
7/1/97 — 6/30/02	\$15,000
9/30/94 - 6/30/97	\$10,000

The limits are in excess of underlying policies with limits of \$4,000 per occurrence and \$18,000 in the aggregate. For the year ended June 30, 2022, Oval reinsured, in excess of the self-insured retention, 100% of the first \$15,000 of risk to Berkshire Hathaway Specialty Insurance. The next \$20,000 was fully ceded to The Medical Protective Company, then \$10,000 ceded to Arch Specialty Insurance Company, with the next \$10,000 ceded to Chubb, then \$5,000 was ceded to The Medical Protective Company and above that the Company ceded \$10,000 of the risk to Markel, with the remaining \$15,000 of the risk to Liberty Specialty Markets Agency Limited.

The estimated liability and the related contributions to the trustee fund are based upon an independent actuarial determination as of June 30, 2022. OSUP participates in the university self-insurance fund for professional medical malpractice liability claims.

The university's estimate of professional malpractice liability includes provisions for known claims and actuarially determined estimates of incurred but not reported claims and incidents. This liability at June 30, 2022 of the anticipated future payments on gross claims is estimated at its present value of \$65,019 discounted at an estimated rate of 3% (university funds) and an additional \$23,487 discounted at an estimated rate of 3% (Oval Limited).

Although actual experience upon the ultimate disposition of the claims may vary from this estimate, the self-insurance fund assets of \$197,629 (which primarily consist of bond and equity funds, money market funds and U.S. treasury notes) are more than the recorded liability at June 30, 2022, and the surplus of \$109,123 is included in unrestricted net position.

At June 30, 2021, the anticipated future payments on gross claims was estimated at its present value of \$54,118 discounted at an estimated rate of 3% (university funds) and an additional \$20,179 discounted at an estimated rate of 3% (Oval Limited). The self-insurance fund assets of \$222,299 (which primarily consist of bond and equity funds, money market funds and U.S. treasury notes) were more than the recorded liability at June 30, 2021, and the surplus of \$148,002 was included in unrestricted net position.

Employee Health Insurance

The university is also self-insured for employee health insurance. As of June 30, 2022 and 2021, \$42,100 and \$46,332, respectively is recorded as a liability relating to both claims received but not paid and estimates of claims incurred but not yet reported.

Workers' Compensation

Effective January 1, 2013, the university became self-insured for workers' compensation. As of June 30, 2022 and 2021, respectively, \$17,073 and \$17,122, are recorded as a liability relating to both claims received but not paid and estimates of claims incurred but not yet reported.

Changes in reported self-insurance liabilities for the primary institution since June 30, 2020 result from the following activities:

Liability at beginning of fiscal year
Current year provision for losses
Claim payments
Balance at fiscal year end

Malpractice Health					Workers' Compe	ensation
	2022	2021	2022	2021	2022	2021
\$	74,297 \$	76,166 \$	46,332 \$	32,583 \$	17,122 \$	18,102
	18,683	1,977	419,002	416,109	5,026	5,355
	(4,475)	(3,846)	(423,234)	(402,360)	(5,074)	(6,335)
\$	88,505 \$	74,297 \$	42,100 \$	46,332 \$	17,073 \$	17,122

NOTE 9 — DEBT

The university may finance the construction, renovation and acquisition of certain facilities through the issuance of debt obligations, which include general receipts bonds, special purpose receipts bonds, capital lease obligations, and other borrowings.

Debt activity for the primary institution for the year ended June 30, 2022 is as follows:

	Primary Institution						
	Beginning			Ending	Current		
	Balance	Additions	Reductions	Balance	Portion		
Direct Borrowings and Direct Placements - Notes:							
WOSU	\$ 1,508	\$ -	\$ 159 \$	1,349 \$	159		
OH Air Quality Note Series A	1,338	-	440	898	447		
OH Air Quality Note Series B	2,340	-	-	2,340	-		
St. Stephens Church Note	2,401	-	93	2,308	98		
Direct Borrowings and Direct Placements - Other:							
Financed Equipment Purchases	1,115	-	1,115	-	-		
Ohio State Energy Partners	235,869	150,843	12,172	374,540	18,754		
General Receipts Bonds - Fixed Rate:							
2010C, due 2040	654,785	-	-	654,785	-		
2010D, due serially through 2032	79,990	-	11,675	68,315	9,640		
2011, due 2111	500,000	-	-	500,000	-		
2012A, due 2030	41,440	-	8,190	33,250	8,425		
2012B, due serially through 2033	8,985	-	1,575	7,410	1,610		
2014A, due serially through 2044	121,560	-	2,825	118,735	2,970		
2016A, due in 2046 and 2056	600,000	-	-	600,000	-		
2016B, due serially through 2030	16,130	-	1,465	14,665	1,550		
2017, due serially through 2028	55,595	-	7,640	47,955	7,955		
2020A, due serially through 2030	185,995	-	7,195	178,800	23,975		
2021A, due serially through 2052	-	600,000	-	600,000	9,415		
Special Purpose General Receipts Bonds - Fixed Rate:							
2013A, due 2043	337,955	-	-	337,955	10,195		
General Receipts Bonds - Variable Rate:							
1997, due serially through 2027	1,700	-	1,700	-	-		
1999B1, due serially through 2029	820	-	820	-	-		
2001, due serially through 2032	3,450	-	3,450	-	-		
2008B, due serially through 2028	9,000	-	9,000	-	-		
2010E, due serially through 2035	125,000	-	-	125,000	125,000		
2014B, due serially through 2044	150,000	-	-	150,000	150,000		
Unamortized Bond Premiums	105,130	118,541	12,378	211,293	-		
Total outstanding debt, excluding lease liabilities	\$ 3,242,106	\$ 869,384	\$ 81,892 \$	4,029,598 \$	370,193		
Lease liabilities (Note 11)			_	68,584	14,265		
Total outstanding debt as reported in the statement of net	oosition		\$	4,098,182 \$	384,458		

Debt activity for the primary institution for the year ended June 30, 2021 is as follows:

	Primary Institution									
	Beginning							Ending		Current
		Balance	Addi	itions	Redu	ctions		Balance		Portion
Direct Borrowings and Direct Placements - Notes:										
WOSU	\$	1,667	\$	-	\$	159	\$	•	\$	159
OH Air Quality Note Series A		1,771		-		433		1,338		440
OH Air Quality Note Series B		2,340		-		-		2,340		-
St. Stephens Church Note		2,489		-		88		2,401		93
Direct Borrowings and Direct Placements - Other:										
Financed Equipment Purchases		2,974		-		1,858		1,115		1,115
Ohio State Energy Partners		141,932	10	01,507		7,570		235,869		12,148
General Receipts Bonds - Fixed Rate:										
2010A, due serially through 2020		6,125		-		6,125		-		-
2010C, due 2040		654,785		-		-		654,785		-
2010D, due serially through 2032		84,625		-		4,635		79,990		11,675
2011, due 2111		500,000		-		-		500,000		-
2012A, due 2030		49,310		-		7,870		41,440		8,190
2012B, due 2033		10,525		-		1,540		8,985		1,575
2014A, due serially through 2044		124,250		-		2,690		121,560		2,825
2016A, due serially through 2111		600,000		-		-		600,000		-
2016B, due serially through 2030		17,535		-		1,405		16,130		1,465
2017, due serially through 2028		62,915		-		7,320		55,595		7,640
2020A, due serially through 2030		185,995		-		-		185,995		7,195
Special Purpose General Receipts Bonds - Fixed Rate:										
2013A, due 2043		337,955		-		-		337,955		-
General Receipts Bonds - Variable Rate:										
1997, due serially through 2027		3,350		-		1,650		1,700		1,700
1999B1, due serially through 2029		1,640		-		820		820		820
2001, due serially through 2032		6,765		-		3,315		3,450		3,450
2003C, due serially through 2031		5,190		-		5,190		-		-
2005B, due serially through 2035		8,120		-		8,120		-		-
2008B, due serially through 2028		17,650		-		8,650		9,000		9,000
2010E, due serially through 2035		125,000		-		´-		125,000		125,000
2014B, due serially through 2044		150,000		_		-		150,000		150,000
Unamortized Bond Premiums		114,545		_		9,415		105,130		-
Total outstanding debt, excluding lease liabilities	\$	3,219,453	\$ 10	01,507	\$	78,853	\$	3,242,106	\$	344,490
Lease liabilities (Note 11)								78,019		15,473
, ,										-
Total outstanding debt as reported in the statement of net p	oosition						\$	3,320,125	\$	359,963

Notes to Financial Statements – Years Ended June 30, 2022 and 2021

(dollars in thousands)

Debt activity for the discretely presented component units for the year ended June 30, 2022 is as follows:

	Discretely Presented Component Units									
	Beginning						Ending		Current	
		Balance		Additions		Reductions		Balance		Portion
Direct Borrowings and Direct Placements:										
OSU Physicians - Series 2013 Health Care										
Facilities Revenue Bond, due through 2035	\$	10,754	\$	-	\$	1,117	\$	9,637	\$	629
OSU Physicians - Term Loan Payable, due 2023		558		-		284		274		267
TRC Ohio Development Service Agency Note Payable		4,216		-		318		3,898		322
SciTech - Credit Facility		252		-		168		84		84
Campus Partners PPP Loan		276		-		276		-		-
Campus Partners EIDL Loan		150		-		150		-		-
Campus Partners Finance Fund Loan		44		-		44		-		-
Financed Equipment Purchases		115		-		17		98		51
Total outstanding debt, excluding lease liabilities	\$	16,365	\$	-	\$	2,374	\$	13,991	\$	1,353
Lease liabilities (Note 11)								20,435		2,126
Total outstanding debt as reported in the statement of net pos	ition						\$	34,426	\$	3,479

Debt activity for the discretely presented component units for the year ended June 30, 2021 is as follows:

	Discretely Presented Component Units										
	Beginning						Ending			Current	
	Balance			tions	ns Reductions			Balance		Portion	
Direct Borrowings and Direct Placements:											
OSU Physicians - Series 2013 Health Care											
Facilities Revenue Bond, due through 2035	\$	11,340	\$	-	\$	586	\$	10,754	\$	601	
OSU Physicians - Term Loan Payable, due 2023		837		-		279		558		284	
TRC Ohio Development Service Agency Note Payable		4,454		-		238		4,216		318	
SciTech - Project Notes Series 2001		340		-		340		-		-	
SciTech - Credit Facility		419		-		167		252		167	
Campus Partners PPP Loan		288		266		278		276		-	
Campus Partners EIDL Loan		160		-		10		150		4	
Campus Partners Finance Fund Loan		59		-		15		44		30	
Financed Equipment Purchases		-		152		37		115		51	
Total outstanding debt, excluding lease liabilities	\$	17,897	\$	418	\$	1,950	\$	16,365	\$	1,455	
Lease liabilities (Note 11)								15,517		1,231	
Total outstanding debt as reported in the statement of net position							\$	31,882	\$	2,686	

Debt obligations are generally callable by the university, bear interest at fixed and variable rates ranging from 0% to 6% and mature at various dates through 2111. Maturities and interest on debt obligations for the next five years and in five-year periods for the primary institution are as follows:

	Primary Institution												
		Bonds			Direct Borrowing Placeme								
		Principal	Interest		Principal	Interest		Total					
2023	\$	350,735 \$	142,395	\$	19,458 \$	28,205	\$	540,793					
2024		70,670	136,265		19,469	26,791		253,195					
2025		72,040	132,765		19,020	25,380		249,205					
2026		59,580	129,337		19,026	23,973		231,916					
2027		62,820	126,546		19,031	22,566		230,963					
2028-2032		286,235	589,465		92,034	91,681		1,059,415					
2033-2037		199,755	536,151		81,455	59,930		877,291					
2038-2042		900,505	421,725		72,770	30,145		1,425,145					
2043-2047		527,895	269,769		39,172	7,762		844,598					
2048-2052		156,635	181,531		-	-		338,166					
2053-2057		250,000	165,540		-	-		415,540					
2058-2062		-	120,000		-	-		120,000					
2063-2067		-	120,000		-	-		120,000					
2068-2072		-	120,000		-	-		120,000					
2073-2077		-	120,000		-	-		120,000					
2078-2082		-	120,000		-	-		120,000					
2083-2087		-	120,000		-	-		120,000					
2088-2092		-	120,000		-	-		120,000					
2093-2197		-	120,000		-	-		120,000					
2098-2102		-	120,000		-	-		120,000					
2103-2107		-	120,000		-	-		120,000					
2108-2112		500,000	96,000		-	-		596,000					
	\$	3,436,870 \$	4,127,489	\$	381,435 \$	316,433	\$	8,262,227					

Maturities and interest on debt obligations for the next five years and in five-year periods for the discretely presented component units are as follows:

		Discretely Presented Component Units											
	Diı	Direct Borrowings and Direct Placements											
		Principal	Interest		Total								
2023	\$	1,353 \$	286	\$	1,639								
2024		1,017	260		1,277								
2025		991	241		1,232								
2026		1,011	220		1,231								
2027		1,032	199		1,231								
2028-2032		5,489	666		6,155								
2033-2037		3,098	146		3,244								
	\$	13,991 \$	2,018	\$	16,009								

General receipts bonds are backed by the unrestricted receipts of the university, excluding certain items as described in the bond indentures.

University bond indentures include provisions for Events of Default and Remedies. In general, if the university fails to pay any interest or principal when it is due and payable, the Trustee may, upon the request of the holders of at least 25% of the outstanding principal on the bonds, declare the principal and any accrued interest as immediately due and payable. For the Series 2013A Special Purpose General Receipts bonds, Events of Default also include failure to "set rates, charges and fees in each Fiscal Year so as to cause Special Purpose Pledged Revenues to be in an amount not less than 1.1 times the aggregate debt service for the then-current Fiscal Year on all Special Purpose General Receipts Obligations".

The university's private and direct placement debt consists primarily of long-term payables to Ohio State Energy Partners (OSEP) for capital improvements. The university's Utility System Lease and Concession Agreement with OSEP includes Events of Default, including the failure to pay the Utility Fee. If the university fails to remedy the default as specified in the agreement, OSEP may terminate the agreement and require the university to pay OSEP the Utility System Concession Value as of the date of such termination. The Utility System Concession Value is defined as the fair market value of the Concessionaire Interest in the lease and concession agreement and would include principal and interest on any outstanding long-term payables to OSEP.

The outstanding bond indentures do not require mandatory reserves for future payment of principal and interest. However, the university has set aside \$397,157 for future debt service which is included in unrestricted net position.

The university has defeased various bonds by placing the proceeds of new bonds into an irrevocable trust to provide for all future debt service payments on the old bonds. The defeased bonds for the primary institution are as follows:

		Amount	(Amount Outstanding at				
		Defeased		June 30, 2022				
General Receipts Bonds:				, , , , , , , , , , , , , , , , , , ,				
Series 2010D	_	3,710		2,995				
	\$	3,710	\$	2,995				

Neither the outstanding indebtedness nor the related trust account assets for the above bonds are included in the university's financial statements.

Special-Purpose General Receipts Bonds

In January 2013, the university issued \$337,955 of Special Purpose General Receipts Bonds, Series 2013A. These bonds are solely payable from, and secured by, a pledge of the gross revenues of Special Purpose Revenue Facilities. Special Purpose Revenue Facilities are defined in the Series 2013 Supplement as all housing and dining facilities and such auxiliary facilities as shall constitute recreation facilities owned by the university. The bond indenture agreement includes a debt covenant, requiring the university "to set rates, charges and fees in each Fiscal Year so as to cause Special Purpose Pledged Revenues to be in an amount not less than 1.10 times the aggregate debt service for the then-current Fiscal Year on all Special Purpose General Receipts Obligations." At June 30, 2022, the university is in compliance with this covenant. Condensed financial information for the Special Purpose Revenue Facilities is provided in Note 22.

Variable Rate Demand Bonds

Series 1997, 1999B1, 2001, 2008B, 2010E and 2014B variable rate demand bonds bear interest at rates based upon yield evaluations at par of comparable securities. The maximum interest rate allowable and the effective average interest rate from issue date to June 30, 2022 are as follows:

	Interest Rate Not	Effective Average					
Series:	to Exceed	Interest Rate					
1997	12%	0.022%					
1999B1	12%	0.028%					
2001	12%	0.028%					
2008B	12%	0.023%					
2010E	8%	0.223%					
2014B1	8%	0.218%					
2014B2	8%	0.223%					

At the discretion of the university, the interest rate on the bonds can be converted to a fixed rate. The bonds may be redeemed by the university or sold by the bondholders to a remarketing agent appointed by the university at any time prior to conversion to a fixed rate at a price equal to the principal amount plus accrued interest.

The university's variable rate demand bonds mature at various dates through 2044. GASB Interpretation No. 1, *Demand Bonds Issued by State and Local Governmental Entities*, provides guidance on the statement of net position classification of these bonds. Under GASB Interpretation No. 1, outstanding principal balances on variable rate demand bonds may be classified as non-current liabilities if the issuer has entered into a "take-out agreement" to convert bonds "put" but not resold into some other form of long-term obligation. In the absence of such an agreement, the total outstanding principal balances for these bonds are required to be classified as current liabilities.

Although it is the university's intent to repay its variable rate demand bonds in accordance with the maturities set forth in the bond offering circulars, the university does not have "take-out agreements" in place per the GASB Interpretation No. 1 requirements. Accordingly, the university has classified the total outstanding principal balances on its variable rate demand bonds as current liabilities. The obligations totaled \$275,000 and \$289,970 at June 30, 2022 and 2021, respectively.

NOTE 10 – DERIVATIVE INSTRUMENTS

In connection with the anticipated refunding of the university's Series 2013A Special Purpose General Receipts Bonds in June 2023, the university has entered into two forward-starting pay fixed/receive floating interest rate swap agreements to convert all or a portion of the associated variable rate debt (anticipated June 2023) to synthetic fixed rates to protect against the potential of rising interest rates.

The terms of the two agreements are summarized below (\$ in 1,000s):

	Notional University Amount Pays		•	University Receives	Effective Date	Termination Date	Par Cancellation Option	Counterparty Credit Rating	
Swap Agreement 1	\$	164,400	1.188% Fixed Rate	Variable rate based on Securities Industry and Financial Markets Association (SIFMA) Municipal Swap Index	June 1, 2023	June 1, 2043	6/1/2035 at University's option	A1/A	
Swap Agreement 2	\$	164,400	1.264% Fixed Rate	Variable rate based on SIFMA Municipal Swap	June 1, 2023	June 1, 2043	6/1/2035 at University's option	Aa2/A+	

The forward-starting pay fixed/receive floating interest rate swap agreements are considered effective hedging derivatives as of June 30, 2022. The fair value of these swaps generally represents the estimated amount that the university would pay to terminate the swap agreements at the statement of net position date taking into account market interest rates as of June 30, 2022. The valuation inputs used to determine the fair value of these instruments are considered Level 2, as they rely on observable inputs other than quoted market prices. The notional amount

represents the underlying reference of the instrument and does not represent the amount of the university's settlement obligations.

Fair values, changes in fair value and financial classification of the swap agreements are summarized below:

Effective hedging derivatives: floating-to-fixed interest rate swaps	Amount	Financial Statement Classification
Fair Value as of June 30, 2022	\$ 50,479	Other non-current assets
Change in Fair Value for Year Ended June 30, 2022	\$ 38,181	Deferred inflows - other

Effective Hedging derivatives: floating-to fixed interest rate swaps	Amount	Financial Statement Classification
Fair Value as of June 30, 2021	\$ 12,298	Other non-current assets
Change in Fair Value for Year Ended June 30, 2021	\$ 18,927	Deferred inflows - other

Using rates in effect as of June 30, 2022, the projected cash flows for the pay fixed/receive floating interest rate swaps deemed effective cash flow hedges, along with the debt service requirements of the associated variable rate debt (anticipated June 2023), are summarized as follows:

Primary Institution

		Variable Rate Bonds*				Swap	Total	
Fiscal Years		Principal Interes		Interest	_	Payments, Net		Payments
2024	\$	-	\$	2,992	\$	1,368	\$	4,360
2025		-		2,992		1,368		4,360
2026		-		2,992		1,368		4,360
2027		-		2,992		1,368		4,360
2028-2032		74,945		14,068		6,429		95,442
2033-2037		110,820		9,561		4,369		124,750
2038-2042		118,415		4,383		2,003		124,801
2043		24,640		224		102		24,967
	\$	328,820	\$	40,205	\$	18,375	\$	387,399

^{*} Variable rate bond interest based on 6/30/2022 SIFMA rate of 0.91%

Hedging Derivative Instrument Risk Factors

By using derivative financial instruments to hedge exposure to changes in interest rates, the university is exposed to certain risk factors. A discussion of the risk factors applicable to the university's swaps and the steps that have been taken to mitigate each risk factor is presented below.

Termination Risk

There is termination risk with pay fixed/receive floating interest rate swaps as the university or swap counterparty may terminate a swap if the other party fails to perform under the terms of the contract. The swaps also contain ratings-based termination provisions where a swap agreement may be terminated if the counterparty's or the university's General Receipts credit ratings fall below Baa2 or BBB. The university's swaps specify Market Quotation, Second Method as the method for determining the termination value. Additionally, the university holds a par cancellation option which enables the university to cancel the swap at no cost starting June 1, 2035. This option also acts to limit the calculation of negative fair value to just the years remaining between the termination date and the date of the par termination option, which in turn mitigates any potential termination payment which may be owed by the university.

Credit Risk

Contracts with positive fair values to the university expose the university to credit risk to the extent the counterparty is unable to pay the termination value upon a Termination Event or an Event of Default. As a mitigant to this risk, the university's swaps include non-parallel collateral posting thresholds under which the counterparties must post collateral if the counterparties' ratings fall to the A+/A1 ratings category for fair values in excess of \$75 million, with that threshold declining at each lower ratings category until reaching a threshold of \$5 million at BBB/Baa2. No collateral had been posted at June 30, 2022.

NOTE 11 — LEASES

University as Lessee

The university is a lessee for various noncancellable leases of real estate and equipment. Lease assets are reported with capital assets and lease liabilities are reported with long-term debt in the Statement of Net Position. For leases between the primary institution and the university's dicretely presented component units, the related lease receivables and payables are shown separately as amounts due to/from the primary institution in the Statement of Net Position. Transportation Research Center Inc., a discretely presented component unit of the university, entered into a Master Lease agreement and related subleases with Honda of America Manufacturing (HAM) and its affiliates which are considered lease-leaseback transactions under GASB Statement No. 87. In a lease-leaseback transaction, each party is both a lessor and lessee. Because each portion of the transaction is with the same counterparty, a right of offset exists. Lease receivables and deferred inflows associated with the HAM lease and subleases are netted against lease liabilities and lease assets for presentation in the Statement of Net Position.

Intangible right-of-use asset activity for the primary institution for the year ended June 30, 2022 is summarized as follows:

	Primary Institution										
	ı	Beginning Balance		Additions		Retirements		Ending Salance			
Lease assets:											
Real estate	\$	184,762	\$	-	\$	1,610	\$	183,152			
Equipment		43,937		5,725		-		49,662			
Total lease assets		228,699		5,725		1,610		232,814			
Less accumulated amortization:											
Real estate		9,550		12,104		1,619		20,035			
Equipment		9,683		10,247		-		19,930			
Total accumulated amortization		19,233		22,351		1,619		39,965			
Total lease assets, net	\$	209,466	\$	(16,626)	\$	(9)	\$	192,849			

Intangible right-of-use asset activity for the primary institution for the year ended June 30, 2021 is summarized as follows:

	Primary Institution											
		eginning Balance		Additions	Ret	irements	Ending Balance					
Lease assets:												
Real estate	\$	94,485	\$	90,277	\$	-	\$ 184,762					
Equipment		40,707		3,230		-	43,937					
Total lease assets		135,192		93,507		-	228,699					
Less accumulated amortization:												
Real estate		-		9,550		-	9,550					
Equipment		-		9,683		-	9,683					
Total accumulated amortization		-		19,233		-	19,233					
Total lease assets, net	\$	135,192	\$	74,274	\$	-	\$ 209,466					

Intangible right-of-use asset activity for the discretely presented component units for the year ended June 30, 2022 is summarized as follows:

		Dis	scre	tely Presente	d Co	mponent U	nits	
	В	eginning						
		Balance		Additions	Re	tirements	Endi	ng Balance
Lease assets:								
Real estate	\$	67,201	\$	34,728	\$	-	\$	101,929
Equipment		689		172		-		861
Total lease assets		67,890		34,900		-		102,790
Less accumulated amortization:								
Real estate		5,821		7,818		-		13,639
Equipment		137		204		-		341
Total accumulated amortization		5,958		8,022		-		13,980
Total lease assets, net	\$	61,932	\$	26,878	\$	-	\$	88,810
Less: Lease assets netted against deferred								
inflows for lease-leaseback							\$	13,124
Total lease assets, net, as presented on Statement								
of Net Position							\$	75,686

Intangible right-of-use asset activity for the discretely presented component units for the year ended June 30, 2021 is summarized as follows:

Discretely Presented Component Units								
Ве	ginning							
В	alance	P	Additions	Reti	rements	Endi	ng Balance	
\$	48,916	\$	18,285	\$	-	\$	67,201	
	251		438		-		689	
	49,167		18,723		-		67,890	
	-		5,821		-		5,821	
	-		137		-		137	
	-		5,958		-		5,958	
\$	49,167	\$	12,765	\$	-	\$	61,932	
						\$	13,905	
						\$	48,027	
	В	\$ 48,916 251 49,167	\$ 48,916 \$ 251 49,167	Beginning Balance Additions \$ 48,916 \$ 18,285 251 438 49,167 18,723 - 5,821 - 137 - 5,958	Beginning Balance Additions Retion \$ 48,916 \$ 18,285 \$ 251 49,167 18,723 - 5,821 - 137 - 5,958	Beginning Balance Additions Retirements \$ 48,916 \$ 18,285 \$ - 251 438 - 49,167 18,723 - - 5,821 - - 137 - - 5,958 -	Beginning Balance Additions Retirements Enditions \$ 48,916 \$ 18,285 \$ - \$ - 251 438 - - 49,167 18,723 - - - 5,821 - - - 137 - - - 5,958 - \$ \$ 49,167 \$ 12,765 \$ - \$	

Notes to Financial Statements – Years Ended June 30, 2022 and 2021

(dollars in thousands)

Lease liability activity for the primary institution includes both leases with external parties and leases with discretely presented component units. Lease liability activity for the primary institution for the year ended June 30, 2022 is summarized as follows:

					F	rimary Ins	titu	tion				
		eginning Balance	Add	ditions	Remeasi	ırements	Re	ductions	End	ling Balance	Curr	ent Portion
Gross lease liabilities	\$	149,105	\$	3,447	\$	-	\$	16,787	\$	135,765	\$	16,377
Less: Amounts due to discretely prese	nted	component	units							(67,181)		
Lease liabilities with external parties (I	Note !	9)							\$	68,584	\$	14,265

Lease liability activity for the primary institution for the year ended June 30, 2021 is summarized as follows:

						Prima	ary Insti	itution				
	В	eginning			Ren	neasureme						
		Balance	A	dditions		nts	Red	uctions	Endir	ng Balance	Curre	nt Portion
Gross lease liabilities	\$	107,752	\$	57,553	\$	-	\$	16,200	\$	149,105	\$	16,580
Less: Amounts due to discretely presented compone	nt uı	nits							\$	(71,086)	•	
Lease liabilities with external parties (Note 9)									\$	78,019	\$	15,473

Lease liability activity for the discretely presented component units includes both leases with external parties and leases with the primary institution. Total lease liability activity for the discretely presented component units for the year ended June 30, 2022 is summarized as follows:

					Discretely Preser	nted Com	ponent	Units			
	Beg	ginning									
	Ва	lance	A	dditions	Remeasurements	Redu	ctions	Endin	g Balance	Current	Portion
Gross lease liabilities	\$	63,510	\$	34,708	\$ -	\$	4,791	\$	93,427	\$	6,458
Less: Lease liabilities netted against recei	vables	for lease-	leas	eback					(13,815)		
Less: Amounts due to primary institution									(59,177)		
Lease liabilities with external parties, net	(Note	9)						\$	20,435	\$	2,126

Lease liability activity for the discretely presented component units for the year ended June 30, 2021 is summarized as follows:

					Discrete	ly Presented	Com	ponent l	Jnits			
		ginning alance	ļ	Additions	Remea	asurements	Red	luctions	Endi	ing Balance	Curr	ent Portion
Gross lease liabilities	\$	49,167	\$	19,913	\$	-	\$	5,570	\$	63,510	\$	4,885
Less: Lease liabilities netted against re	ceiva	bles for lea	se-le	aseback						(14,338)		
Less: Amounts due to primary institut	ion									(33,655)		
Lease liabilities with external parties,	net (N	lote 9)							\$	15,517	\$	1,231

Future annual lease payments for the primary institution are as follows:

		Primary Insti	itution			
	Princi	pal Interes	it	Total		
Year Ending June 30,						
2023	\$ 1	16,377 \$ 5	5,550 \$	21,927		
2024	1	1,536 5	5,078	16,614		
2025		7,972 4	1,759	12,731		
2026		4,294 4	,531	8,825		
2027		3,462 4	1,372	7,834		
2028-2032	1	14,528	,881	34,409		
2033-2037	1	16,565 16	5,316	32,881		
2038-2042	1	15,082 12	2,636	27,718		
2043-2047	1	19,700 8	3,632	28,332		
2048-2052	2	21,189 3	3,286	24,475		
2053-2057		3,057	744	3,801		
2058-2062		1,012	356	1,368		
2063-2067		990	93	1,083		
	\$ 13	35,764 \$ 86	5,234 \$	221,998		

Future annual lease payments for the discretely presented component units are as follows:

	Discretely Presented Component Units							
		Principal		Interest		Total		
Year Ending June 30,						_		
2023	\$	6,458	\$	3,932	\$	10,390		
2024		5,665		3,693		9,358		
2025		6,162		3,455		9,617		
2026		7,993		3,143		11,136		
2027		6,960		2,824		9,784		
2028-2032		33,519		9,390		42,909		
2033-2037		16,890		3,992		20,882		
2038-2042		9,780		816		10,596		
	\$	93,427	\$	31,245	\$	124,672		

University as Lessor

The university is lessor for various noncancellable leases of real estate. Lease-related revenues recognized by the primary institution and the discretely presented component units for the years ended June 30, 2022 and 2021 are as follows:

						Discretely	Pres	sented
	Primary Institution					Compon	ent l	Units
		2022		2021		2022		2021
Lease revenue	\$	9,550	\$	7,750	\$	13,057	\$	10,155
Interest revenue		4,096		2,809		4,415		2,084
	\$	13,646	\$	10,559	\$	17,472	\$	12,239

NOTE 12 — COMPENSATED ABSENCES

University employees earn vacation and sick leave on a monthly basis.

Classified civil service employees may accrue vacation benefits up to a maximum of three years credit. Administrative and professional staff and faculty may accrue vacation benefits up to a maximum of 240 hours. For all classes of employees, any earned but unused vacation benefit is payable upon termination.

Sick leave may be accrued without limit. However, earned but unused sick leave benefits are payable only upon retirement from the university with ten or more years of service with the state. The amount of sick leave benefit payable at retirement is one fourth of the value of the accrued but unused sick leave up to a maximum of 240 hours.

The university accrues sick leave liability for those employees who are currently eligible to receive termination payments as well as other employees who are expected to become eligible to receive such payments. This liability is calculated using the "termination payment method" which is set forth in Appendix C, Example 4 of the GASB Statement No. 16, *Accounting for Compensated Absences*. Under the termination method, the university calculates a ratio, Sick Leave Termination Cost per Year Worked, that is based on the university's actual historical experience of sick leave payouts to terminated employees. This ratio is then applied to the total years-of-service for current employees.

Certain employees of the university (mostly classified civil service employees) receive compensation time in lieu of overtime pay. Any unused compensation time must be paid to the employee at termination or retirement.

NOTE 13 — OTHER LIABILITIES

Other liability activity for the primary institution for the year ended June 30, 2022 is as follows:

Compensated absences
Self-insurance accruals
Amounts due to third party payors
Irrevocable split-interest agreements
Refundable advances for Federal Perkins loans
Other noncurrent liabilities
Other current liabilities

	ı	Prim	nary Institution		
Beginning				Ending	Current
Balance	Additions		Reductions	Balance	Portion
\$ 238,720	\$ 31,143	\$	33,179	\$ 236,684	\$ 33,179
137,751	442,710		432,783	147,678	47,181
119,790	3,052		17,183	105,659	18,353
39,592	1,415		5,419	35,588	3,264
26,004	-		2,766	23,238	-
283,646	-		7,301	276,345	-
1,236	-		1,224	12	12
\$ 846,739	\$ 478,320	\$	499,855	\$ 825,204	\$ 101,989

Other liability activity for the primary institution for the year ended June 30, 2021 is as follows:

Compensated absences
Self-insurance accruals
Amounts due to third party payors
Irrevocable split-interest agreements
Refundable advances for Federal Perkins loans
Other noncurrent liabilities
Other current liabilities

 Primary Institution											
 Beginning			Endi					Current			
 Balance		Additions		Reductions		Balance		Portion			
\$ 225,561	\$	37,451	\$	24,292	\$	238,720	\$	24,292			
126,851		423,441		412,541		137,751		52,668			
110,819		12,337		3,366		119,790		29,387			
35,117		8,130		3,655		39,592		3,264			
29,695		-		3,690		26,005		-			
104,255		190,039		10,651		283,643		-			
316		1,236		316		1,236		1,236			
\$ 632,614	\$	672,634	\$	458,511	\$	846,737	\$	110,847			

NOTE 14 — OPERATING EXPENSES BY OBJECT

In accordance with requirements set forth by the Ohio Board of Regents, the university reports operating expenses by functional classification on the Statement of Revenues, Expenses and

Changes in Net Position. Operating expenses by object for the primary institution for the years ended June 30, 2022 and 2021 are summarized as follows:

Year Ended June 30, 2022

	Primary Institution						
	Compensation and		Supplies and				
		Benefits	Services	Fellowships		Depreciation	Total
Instruction	\$	871,372	155,824	\$ -	\$	- \$	1,027,196
Separately budgeted research		286,811	215,664	-		=	502,475
Public service		73,332	74,568	-		-	147,900
Academic support		150,381	84,989	-		-	235,370
Student services		69,080	17,265	-		-	86,345
Institutional support		178,027	83,321	-		=	261,348
Operation and maintenance of plant		38,936	88,358	-		-	127,294
Scholarships and fellowships		9,685	2,681	151,727		-	164,093
Auxiliary enterprises		140,990	210,564	-		=	351,554
OSU Health System		1,466,625	1,770,310	-		=	3,236,935
Depreciation		-	-	-		494,360	494,360
Total operating expenses	\$	3,285,239 \$	2,703,544	\$ 151,727	\$	494,360 \$	6,634,870

Year Ended June 30, 2021

				Pri	imary Institutio	n		
	Co	mpensation and	Supplies and	9	Scholarships and			
		Benefits	Services		Fellowships	Depreciation	ı	Total
Instruction	\$	859,138 \$	98,366	\$	- :	\$ -	\$	957,504
Separately budgeted research		258,895	177,991		-	-		436,886
Public service		60,829	78,736		-	-		139,565
Academic support		119,728	70,369		-	-		190,097
Student services		40,796	11,290		-	-		52,086
Institutional support		165,206	55,469		-	-		220,675
Operation and maintenance of plant		6,714	88,958		-	-		95,672
Scholarships and fellowships		8,227	4,054		133,906	-		146,187
Auxiliary enterprises		88,875	117,053		-	-		205,928
OSU Health System		936,366	1,792,012		-	-		2,728,378
Depreciation		-	-		-	460,4	78	460,478
Total operating expenses	\$	2,544,774 \$	2,494,298	\$	133,906	\$ 460,4	78 \$	5,633,456

NOTE 15 — RETIREMENT PLANS

University employees are covered by one of three retirement systems. The university faculty is covered by the State Teachers Retirement System of Ohio (STRS Ohio). Substantially all other employees are covered by the Public Employees Retirement System of Ohio (OPERS). Employees may opt out of STRS Ohio and OPERS and participate in the Alternative Retirement Plan (ARP) if they meet certain eligibility requirements.

STRS Ohio and OPERS are cost-sharing multiple-employer defined benefit pension plans. STRS Ohio and OPERS provide retirement and disability benefits, annual cost-of-living adjustments, and death benefits to plan members and beneficiaries. In addition, the retirement systems provide other post-employment benefits (OPEB), consisting primarily of healthcare. Benefits are established by state statute and are calculated using formulas that include years of service and final average salary as factors.

Employers participating in cost-sharing multiple-employer plans are required to recognize a proportionate share of the collective net pension and OPEB liabilities of the plans. Although changes in the net pension and OPEB liabilities generally are recognized as expense in the current period, certain items are deferred and recognized as expense in future periods. Deferrals for differences between projected and actual investment returns are amortized to pension expense over five years. Deferrals (except for contributions subsequent to the measurement date) are amortized over the estimated remaining service lives of both active and inactive employees (amortization periods range from 3 to 10 years).

Defined Benefit Pension and OPEB Plans - Year Ended June 30, 2022

The collective net pension liabilities of the retirement systems and the university's proportionate share of these liabilities as of June 30, 2022 are as follows:

	STRS-Ohio		OPERS		Total
Net pension liability - all employers	\$ 12,785,899	\$	8,288,243		
Proportion of the net pension liability - university	5.0%		10.4%		
Proportionate share of net pension liability	\$ 638,605	\$	859,188	\$	1,497,793

The collective net OPEB assets of the retirement systems and the university's proportionate share of these assets as of June 30, 2022 are as follows:

	 STRS-Ohio	OPERS	Total
Net OPEB (asset) liability - all employers	\$ (2,108,418) \$	(3,132,153)	
Proportion of the net OPEB (asset) liability - university	5.0%	10.7%	
Proportionate share of net OPEB (asset) liability	\$ (105,307) \$	(335,820) \$	(441,127)

Deferred outflows of resources and deferred inflows of resources for pensions were related to the following sources as of June 30, 2022:

	STRS-Ohio	OPERS	Total
Deferred Outflows of Resources:			
Differences between expected and actual experience	\$ 19,730	\$ 49,339	\$ 69,069
Changes in assumptions	177,160	117,455	294,615
Changes in proportion of university contributions	2,429	2,254	4,683
University contributions subsequent to the	90,864	125,132	215,996
measurement date			
Total	\$ 290,183	\$ 294,180	\$ 584,363
Deferred Inflows of Resources:			
Differences between expected and actual experience	\$ 4,003	\$ 26,144	\$ 30,147
Net difference between projected and actual earnings on pension plan investments	550,355	1,100,745	1,651,100
Changes in proportion of university contributions	 -	70	70
Total	\$ 554,358	\$ 1,126,959	\$ 1,681,317

Deferred outflows of resources and deferred inflows of resources for OPEB were related to the following sources as of June 30, 2022:

	S	TRS-Ohio	OPERS	Total
Deferred Outflows of Resources:				
Differences between expected and actual experience	\$	3,750	\$ -	\$ 3,750
Changes in assumptions		6,727	-	6,727
Changes in proportion of university contributions		94	974	1,068
Total	\$	10,571	\$ 974	\$ 11,545
Deferred Inflows of Resources:				
Differences between expected and actual experience	\$	19,294	\$ 50,642	\$ 69,936
Changes in assumptions		62,823	135,156	197,979
Net difference between projected and actual earnings		29,189	159,719	188,908
on pension plan investments				
Total	\$	111,306	\$ 345,517	\$ 456,823

Amounts reported as deferred outflows of resources related to pensions resulting from university contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2023. Other amounts reported as deferred outflows

of resources and deferred inflows of resources related to pensions will be recognized in pension expense during the years ending June 30 as follows:

	9	STRS-Ohio	OPERS	Total
2023	\$	(88,300) \$	(150,384) \$	(238,684)
2024		(76,240)	(373,497)	(449,737)
2025		(82,238)	(258,778)	(341,016)
2026		(108,260)	(175,669)	(283,929)
2027		-	(63)	(63)
2028 and Thereafter		-	479	479
Total	\$	(355,038) \$	(957,912) \$	(1,312,950)

Net deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense during the years ending June 30 as follows:

	 STRS-Ohio	OPERS	Total
2023	\$ (28,266) \$	(213,312) \$	(241,578)
2024	(27,561)	(73,337)	(100,898)
2025	(27,140)	(34,902)	(62,042)
2026	(12,914)	(22,994)	(35,908)
2027	(4,664)	-	(4,664)
2028 and Thereafter	 (188)	-	(188)
Total	\$ (100,733) \$	(344,545) \$	(445,278)

The following table provides additional details on the benefit formulas, contribution requirements and significant assumptions used in the measurement of total pension and OPEB liabilities for the retirement systems for the year ended June 30, 2022 (information below applies to both pensions and OPEB unless otherwise indicated).

	STRS-Ohio	OPERS
Statutory Authority	Ohio Revised Code Chapter 3307	Ohio Revised Code Chapter 145

Benefit Formula

Pensions The annual retirement allowance based on final average salary multiplied by a percentage that varies based on years of service. Effective August 1, 2015, the calculation is 2.2% of final average salary for the five highest years of earnings multiplied by all years of service. Eligibility changes will be phased in until Aug. 1, 2026, when retirement eligibility for unreduced benefits will be five years of service credit and age 65, or 35 years of service credit and at least age 60. Eligibility changes for DB Plan members who retire with actuarially reduced benefits will be phased in until Aug. 1, 2023 when retirement eligibility will be five years of qualifying service credit and age 60, or 30 years of service credit at any age.

OPEB - STRS Ohio provides access to health care coverage for eligible retirees who participated in the Defined Benefit or Combined Plans and their eligible dependents. Coverage under the current program includes hospitalization, physicians' fees and prescription drugs and partial reimbursement of the monthly Medicare Part B premiums. Pursuant to the Ohio Revised Code, the Retirement Board has discretionary authority over how much, if any, of the associated health care costs will be absorbed by the plan. All benefit recipients pay a portion of the health care costs in the form of a monthly premium. Benefit recipients contributed \$254.0 million or 58% of the total health care costs in fiscal 2021 (excluding deductibles, coinsurance and copayments).

Medicare Part D is a federal program to help cover the costs of prescription drugs for Medicare beneficiaries. This program allows STRS Ohio to recover part of the cost for providing prescription coverage since all eligible STRS Ohio health care plans include creditable prescription drug coverage. For the year ended June 30, 2021, STRS Ohio received \$96.5 million in Medicare Part D reimbursements.

Pensions -- Benefits are calculated on the basis of age, final average salary (FAS), and service credit. State and Local members in transition Groups A and B are eligible for retirement benefits at age 60 with five years of service credit or at age 55 with 25 or more years of service credit. Group C for State and Local is eligible for retirement at age 57 with 25 years of service or at age 62 with five years of service. For Groups A and B, the annual benefit is based on 2.2% of FAS multiplied by the actual years of service for the first 30 years of service credit and 2.5% for years of service in excess of 30 years. For Group C, the annual benefit applies a factor of 2.2% for the first 35 years and a factor of 2.5% for the years of service in excess of 35. represents the average of the three highest years of earnings over a member's career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member's career. The base amount of a member's pension benefit is locked in upon receipt of the initial benefit payment for calculation annual cost-of-living of adjustment.

OPEB – The Ohio Revised Code permits, but does not require, OPERS to offer postemployment health care coverage. The ORC allows a portion of the employers' contributions to be used to fund health care coverage. The health care portion of the employer contribution rate for the Traditional Pension Plan and Combined Plan is comparable, as the same coverage options are provided to participants in both plans. Beginning January 1, 2015, the service eligibility criteria for health care coverage increased from 10 years to 20 years with a minimum age of 60, or 30 years of qualifying service at any age. Beginning with January 2016 premiums, Medicare-eligible retirees could select supplemental coverage through the Connector, and may be eligible for monthly allowances deposited to an HRA to be used for reimbursement of eligible health care expenses. Coverage for non-Medicare retirees included hospitalization, medical expenses and prescription drugs through December 31, 2021. The System determines

	STRS-Ohio	OPERS
		the amount, if any, of the associated health care costs that will be absorbed by the System and attempted to control costs by using managed care, case management, and other programs. Effective January 1, 2022, eligible non-Medicare retirees are part of a Connector program, similar to Medicare-enrolled retirees. Additional details on health care coverage can be found in the Plan Statement in the annual report.
		Medicare Part D program as of December 31, 2016.
Cost-of-Living Adjustments (COLAs)	Effective July 1, 2017, the COLA was reduced to 0%.	Once a benefit recipient retiring under the Traditional Pension Plan has received benefits for 12 months, current law provides for an annual COLA. The COLA is calculated on the member's base pension benefit at the date of retirement and is not compounded. Members retiring under the Combined Plan receive a COLA on the defined benefit portion of their pension benefit. For those who retired prior to January 7, 2013, current law provides for a 3% COLA. For those retiring subsequent to January 7, 2013, beginning in calendar year 2019, current law provides that the adjustment will be based on the average percentage increase in the Consumer Price Index, capped at 3%.
Contribution Rates	Employer and member contribution rates are established by the State Teachers Retirement Board and limited by Chapter 3307 of the Ohio Revised Code. The statutory employer rate is 14% and the statutory member rate is 14% of covered payroll. Under Ohio law, funds to pay health care costs may be deducted from employer contributions. For the year ended June 30, 2021, no employer allocation was made to the health care fund.	Employee and member contribution rates are established by the OPERS Board and limited by Chapter 145 of the Ohio Revised Code. For 2019, employer rates for the State and Local Divisions were 14% of covered payroll (and 18.1% for the Law Enforcement and Public Safety Divisions). Member rates for the State and Local Divisions were 10% of covered payroll (13% for Law Enforcement and 12% for Public Safety).
Measurement Date	June 30, 2021	December 31, 2021 (OPEB is rolled forward from December 31, 2020 actuarial valuation date)

	STRS-Ohio	OPERS
Actuarial Assumptions	Valuation Date: June 30, 2021 for pensions and OPEB Actuarial Cost Method: Individual entry age Investment Rate of Return: 7.00% Inflation: 2.50% Projected Salary Increases: 12.50% at age 20 to 2.50% at age 65 Cost-of-Living Adjustments: 0% effective July 1, 2017 Payroll Increases: 3.00% Health Care Cost Trends: 5.00% to 29.98% initial; 4% ultimate	Valuation Date: December 31, 2021 for pensions; December 31, 2020 for OPEB Actuarial Cost Method: Individual entry age Investment Rate of Return: 6.9% for pensions; 6.0% for OPEB Inflation: 2.75% Projected Salary Increases: 2.75% - 10.75% Cost-of-Living Adjustments: Pre-1/7/2013 Retirees: 3.00% Simple Post-1/7/2013 Retirees: 3.00% Simple through 2022, then 2.05% Simple Health Care Cost Trends: 5.50% initial;
Mortality Rates	Post-retirement mortality rates for healthy retirees are based on the RP-2014 Annuitant Mortality Table with 50% of rates through age 69, 70% of rates between ages 70 and 79, 90% of rates between ages 80 and 84, and 100% of rates thereafter, projected forward generationally using mortality improvement scale MP-2016. Preretirement mortality rates are based on RP-2014 Employee Mortality Tables, projected forward generationally using mortality improvement scale MP-2016. Post-retirement disabled mortality rates are based on the RP2014 Disabled Mortality Table with 90% of rates for males and 100% of rates for females, projected forward generationally using mortality improvement scale MP-2016.	Pre-retirement mortality rates are based on 130% of the Pub-2010 General Employee Mortality tables (males and females) for State and Local Government divisions and 170% of the Pub-2010 Safety Employee Mortality tables (males and females) for the Public Safety and Law Enforcement divisions. Postretirement mortality rates are based on 115% of the PubG-2010 Retiree Mortality Tables (males and females) for all divisions. Postretirement mortality rates for disabled retirees are based on the PubNS-2010 Disabled Retiree Mortality Tables (males and females) for all divisions. For all of the previously described tables, the base year is 2010 and mortality rates for a particular calendar year are determined by applying the MP-2020 mortality improvement scales (males and females) to all of these tables.
Date of Last Experience Study	June 30, 2016	December 31, 2020

STRS-Ohio **OPERS** The long term expected rates of return on Investment The 10 year expected real rate of return on Return defined benefit pension and health care defined benefit pension and health care **Assumptions** plan investments was determined by STRS investment assets were determined using a Ohio's investment consultant by developing building-block method in which best-estimate best estimates of expected future real rates ranges of expected future real rates of return of return for each major asset class. The are developed for each major asset class. target allocation and long-term expected These ranges are combined to produce the real rate of return for each major asset class long-term expected rate of return by weighting are summarized as follows: the expected future real rates of return by the target asset allocation percentage, adjusted Long Term for inflation. Target Expected . Return* Asset Class Allocation Domestic Equity The following table displays the Board-International Equity 23.0% 7.55% Alternatives 17.0% 7.09% approved asset allocation policy for defined Real Estate 10.0% 6.00% benefit pension assets for 2021 and the long-Liquidity Reserves term expected real rates of return: 100% * Returns presented as geometric means Long Term Expected Target Asset Class Allocation Return* Fixed Income 24.0% 1.03% Domestic Equities Real Estate 11.0% 3 66% Private Equity 12.0% 7.43% International Equities 4.88% Risk Parity Other Investments 5.0% 2 92% 4.0% Total * Returns presented as geometric means The following table displays the Boardapproved asset allocation policy for health care assets for 2021 and the long-term expected real rates of return: Long Term Target Expected Asset Class Allocation Return* 0.91% **Domestic Equities** 25.0% 3.78% 3.71% REITs 7.0% International Equities 25.0% 4.88% 2.92% Risk Parity 2.0% Other Investments 1.93% Total 100.0% * Returns presented as geometric means

Discount Rate

Pensions -- The discount rate used to measure the total pension liability was 7.00% as of June 30, 2021. The projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at the statutory contribution rates in accordance with the rate increases described above. For this purpose, only emplover contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Based on those assumptions, STRS Ohio's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members as of June 30, 2021. Therefore, the long-term expected rate of return on pension plan investments of 7.00% was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2021.

OPEB -- The discount rate used to measure the total OPEB liability was 7.00% as of June 30, 2021. The projection of cash flows used to determine the discount rate assumes STRS Ohio continues to allocate no employer contributions to the health care fund. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on health care plan investments of 7.00% was applied to all periods of projected health care costs to determine the total OPEB liability as of June 30, 2021.

Pensions -- The discount rate used to measure the total pension liability was 6.9% for the Traditional Pension Plan, the Combined Plan and the Member-Directed Plan. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

OPEB – A single discount rate of 6.00% was used to measure the OPEB liability on the measurement date of December 31, 2021. Projected benefit payments are required to be discounted to their actuarial present value using a single discount rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the health care fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate are not met). This single discount rate was based on an expected rate of return on the health care investment portfolio of 6.00% and a municipal bond rate of 1.84%. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined contribution rate. Based on these assumptions, the health care fiduciary net position and future contributions were sufficient to finance health care costs through 2121. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2121, the duration of the projection period

	STRS-Ohio	OPERS
	OTAC OTTIC	through which projected health care payments are fully funded.
Changes in Assumptions Since the Prior	Pensions – The discount rate was adjusted to 7.00% from 7.45% for the June 30, 2021 valuation.	Pensions – The discount rate was adjusted to 6.90% from 7.20% for the December 31, 2021 valuation.
Measurement Date	OPEB – The discount rate was adjusted to 7.00% from 7.45% for the June 30, 2021 valuation.	OPEB – There were no changes in assumptions since the prior measurement date of December 31, 2019.
Benefit Term Changes Since the Prior	Pensions – There were no changes in benefit terms since the prior measurement date of June 30, 2020.	Pensions – There were no changes in benefit terms since the prior measurement date of December 31, 2020.
Measurement Date	OPEB The non-Medicare subsidy percentage was increased effective January 1, 2022 from 2.055% to 2.100%. The non-Medicare frozen subsidy base premium was increased effective January 1, 2022. The Medicare Part D subsidy was updated to reflect it is expected to be negative in CY2022. The Part B monthly reimbursement elimination date was postponed indefinitely.	OPEB – On January 15, 2020, the Board approved several changes to the health care plan offered to Medicare and pre-Medicare retirees in efforts to decrease costs and increase the solvency of the health care plan. These changes are effective January 1, 2022, and include changes to base allowances and eligibility for Medicare retirees, as well as replacing OPERS-sponsored medical plans for pre-Medicare retirees with monthly allowances, similar to the program for Medicare retirees.
Sensitivity of Net Pension Liability to	1% Decrease Current Rate 1% Increase (6.00%) (7.00%) (8.00%)	1% Decrease Current Rate 1% Increase (5.90%) (6.90%) (7.90%)
Changes in Discount Rate	\$ 1,195,868 \$ 638,605 \$ 167,719	\$ 2,345,870 \$ 859,188 \$ (377,346)
Sensitivity of Net OPEB Liability (Asset) to	1% Decrease Current Rate 1% Increase (6.00%) (7.00%) (8.00%)	1% Decrease Current Rate 1% Increase (5.00%) (6.00%) (7.00%)
Changes in Discount Rate	\$ (88,863) \$ (105,307) \$ (119,044)	\$ (197,503) \$ (335,820) \$ (450,655)
Sensitivity of Net OPEB Liability (Asset) to	1% Decrease in Current 1% Increase in Trend Rate Trend Rate Trend Rate	1% Decrease in Current 1% Increase in Trend Rate Trend Rate Trend Rate
Changes in Medical Trend Rate	\$ (118,487) \$ (105,307) \$ (89,009)	\$ (339,466) \$ (335,820) \$ (331,531)

Defined Benefit Pension and OPEB Plans - Year Ended June 30, 2021

The collective net pension liabilities of the retirement systems and the university's proportionate share of these liabilities as of June 30, 2021 are as follows:

	 STRS-Ohio	OPERS	Total
Net pension liability - all employers	\$ 24,196,442 \$	14,500,930	
Proportion of the net pension liability - university	4.9%	10.4%	
Proportionate share of net pension liability	\$ 1,175,835 \$	1,503,497 \$	2,679,333

The collective net OPEB assets of the retirement systems and the university's proportionate share of these assets as of June 30, 2021 are as follows:

	STRS-Ohio		OPERS	Total
Net OPEB (asset) liability - all employers	\$	(1,757,498) \$	(1,781,580)	
Proportion of the net OPEB (asset) liability - university		4.9%	10.7%	
Proportionate share of net OPEB (asset) liability	\$	(85,406) \$	(189,776) \$	(275,182)

Deferred outflows of resources and deferred inflows of resources for pensions were related to the following sources as of June 30, 2021:

	 STRS-Ohio	OPERS	Total
Deferred Outflows of Resources:			
Differences between expected and actual experience	\$ 2,638	\$ 1,579	\$ 4,217
Changes in assumptions	63,120	2,577	65,697
Net difference between projected and actual earnings on pension plan investments	57,181	-	57,181
Changes in proportion of university contributions	1,947	4,836	6,783
University contributions subsequent to the measurement date	 87,064	118,738	205,802
Total	\$ 211,950	\$ 127,730	\$ 339,680
Deferred Inflows of Resources:			
Differences between expected and actual experience	\$ 7,519	\$ 72,258	\$ 79,777
Net difference between projected and actual earnings on pension plan investments	-	602,692	602,692
Changes in proportion of university contributions	-	21	21
Total	\$ 7,519	\$ 674,971	\$ 682,490

Deferred outflows of resources and deferred inflows of resources for OPEB were related to the following sources as of June 30, 2021:

	S	TRS-Ohio	OPERS	Total
Deferred Outflows of Resources:	_			
Differences between expected and actual experience	\$	5,472	\$ -	\$ 5,472
Changes in assumptions		1,410	91,112	92,522
Net difference between projected and actual earnings on OPEB plan investments		2,993	-	2,993
Changes in proportion of university contributions		119	3,076	3,195
Total	\$	9,994	\$ 94,188	\$ 104,182
Deferred Inflows of Resources:				
Differences between expected and actual experience	\$	17,012	\$ 170,003	\$ 187,015
Changes in assumptions		81,122	307,493	388,615
Net difference between projected and actual earnings		-	100,069	100,069
on pension plan investments				
Total	\$	98,134	\$ 577,565	\$ 675,699

Amounts reported as deferred outflows of resources related to pensions resulting from university contributions subsequent to the measurement date will be recognized as a reduction of the net pension liability in the year ended June 30, 2022. Other amounts reported as deferred outflows of resources and deferred inflows of resources related to pensions will be recognized in pension expense during the years ending June 30 as follows:

	S1	ΓRS-Ohio	OPERS	Total
2022	\$	39,364 \$	(245,432) \$	(206,068)
2023		19,960	(91,050)	(71,090)
2024		32,020	(244,892)	(212,872)
2025		26,023	(83,567)	(57,544)
2026		-	(457)	(457)
2027 and Thereafter		-	(581)	(581)
Total	\$	117,367 \$	(665,979) \$	(548,612)

Net deferred outflows of resources and deferred inflows of resources related to OPEB will be recognized in OPEB expense during the years ending June 30 as follows:

	S1	TRS-Ohio	OPERS	Total
2022	\$	(21,688) \$	(251,639) \$	(273,327)
2023		(19,791)	(176,653)	(196,444)
2024		(19,085)	(43,175)	(62,260)
2025		(18,664)	(11,912)	(30,576)
2026		(4,439)	-	(4,439)
2027 and Thereafter		(4,471)	-	(4,471)
Total	\$	(88,138) \$	(483,379) \$	(571,517)

The following table provides additional details on the benefit formulas, contribution requirements and significant assumptions used in the measurement of total pension and OPEB liabilities for the retirement systems for the year ended June 30, 2021 (information below applies to both pensions and OPEB unless otherwise indicated).

	STRS-Ohio	OPERS
Statutory	Ohio Revised Code Chapter 3307	Ohio Revised Code Chapter 145
Authority		

Benefit Formula

Pensions The annual retirement allowance based on final average salary multiplied by a percentage that varies based on years of service. Effective August 1, 2015, the calculation is 2.2% of final average salary for the five highest years of earnings multiplied by all years of service. Eligibility changes will be phased in until Aug. 1, 2026, when retirement eligibility for unreduced benefits will be five years of service credit and age 65, or 35 years of service credit and at least age 60. Eligibility changes for DB Plan members who retire with actuarially reduced benefits will be phased in until Aug. 1, 2023 when retirement eligibility will be five years of qualifying service credit and age 60, or 30 years of service credit at any age.

OPEB - STRS Ohio provides access to health care coverage for eligible retirees who participated in the Defined Benefit or Combined Plans and their eligible dependents. Coverage under the current program includes hospitalization, physicians' fees and prescription drugs and reimbursement of a portion of the monthly Medicare Part B premiums. Medicare Part premium reimbursements will be discontinued effective January 1, 2021. Pursuant to the Ohio Revised Code, the Retirement Board has discretionary authority over how much, if any, of the associated health care costs will be absorbed by the plan. All benefit recipients pay a portion of the health care costs in the form of a monthly premium. Benefit recipients contributed \$295.8 million or 60% of the total health care costs in fiscal 2020 (excluding deductibles, coinsurance and copayments).

Medicare Part D is a federal program to help cover the costs of prescription drugs for Medicare beneficiaries. This program allows STRS Ohio to recover part of the cost for providing prescription coverage since all eligible STRS Ohio health care plans include creditable prescription drug coverage.

Pensions -- Benefits are calculated on the basis of age, final average salary (FAS), and service credit. State and Local members in transition Groups A and B are eligible for retirement benefits at age 60 with five years of service credit or at age 55 with 25 or more years of service credit. Group C for State and Local is eligible for retirement at age 57 with 25 years of service or at age 62 with five years of service. For Groups A and B, the annual benefit is based on 2.2% of FAS multiplied by the actual years of service for the first 30 years of service credit and 2.5% for years of service in excess of 30 years. For Group C, the annual benefit applies a factor of 2.2% for the first 35 years and a factor of 2.5% for the years of service in excess of 35. FAS represents the average of the three highest years of earnings over a member's career for Groups A and B. Group C is based on the average of the five highest years of earnings over a member's career. The base amount of a member's pension benefit is locked in upon receipt of the initial benefit payment for calculation of annual cost-of-living adjustment.

OPEB – The Ohio Revised Code permits, but does not require, OPERS to offer postemployment health care coverage. The ORC allows a portion of the employers' contributions to be used to fund health care coverage. The health care portion of the employer contribution rate for the Traditional Pension Plan and Combined Plan is comparable, as the same coverage options are provided to participants in both plans. Beginning January 1, 2015, the service eligibility criteria for health care coverage increased from 10 years to 20 years with a minimum age of 60, or 30 years of qualifying service at any age. Beginning with January 2016 premiums, Medicare-eligible retirees could select supplemental coverage through the Connector, and may be eligible for monthly allowances deposited to an HRA to be used for reimbursement of eligible health care expenses. Coverage for non-Medicare retirees includes hospitalization, medical expenses and prescription drugs. The System determines the amount, if any, of the

	STRS-Ohio	OPERS
	For the year ended June 30, 2020, STRS Ohio received \$81.9 million in Medicare Part D reimbursements.	associated health care costs that will be absorbed by the System and attempts to control costs by using managed care, case management, and other programs. Additional details on health care coverage can be found in the Plan Statement in the OPERS 2020 CAFR.
		OPERS no longer participates in the Medicare Part D program as of December 31, 2016.
Cost-of-Living Adjustments (COLAs)	Effective July 1, 2017, the COLA was reduced to 0%.	Once a benefit recipient retiring under the Traditional Pension Plan has received benefits for 12 months, current law provides for an annual COLA. The COLA is calculated on the member's base pension benefit at the date of retirement and is not compounded. Members retiring under the Combined Plan receive a COLA on the defined benefit portion of their pension benefit. For those who retired prior to January 7, 2013, current law provides for a 3% COLA. For those retiring subsequent to January 7, 2013, beginning in calendar year 2019, current law provides that the adjustment will be based on the average percentage increase in the Consumer Price Index, capped at 3%.
Contribution Rates	Employer and member contribution rates are established by the State Teachers Retirement Board and limited by Chapter 3307 of the Ohio Revised Code. The statutory employer rate is 14% and the statutory member rate is 14% of covered payroll. Under Ohio law, funds to pay health care costs may be deducted from employer contributions. For the year ended June 30, 2020, no employer allocation was made to the health care fund.	Employee and member contribution rates are established by the OPERS Board and limited by Chapter 145 of the Ohio Revised Code. For 2019, employer rates for the State and Local Divisions were 14% of covered payroll (and 18.1% for the Law Enforcement and Public Safety Divisions). Member rates for the State and Local Divisions were 10% of covered payroll (13% for Law Enforcement and 12% for Public Safety).
Measurement Date	June 30, 2020	December 31, 2020 (OPEB is rolled forward from December 31, 2019 actuarial valuation date)

	STRS-Ohio	OPERS
Actuarial Assumptions	Valuation Date: June 30, 2020 for pensions and OPEB Actuarial Cost Method: Individual entry age Investment Rate of Return: 7.45% Inflation: 2.50% Projected Salary Increases: 12.50% at age 20 to 2.50% at age 65 Cost-of-Living Adjustments: 0% effective July 1, 2017 Payroll Increases: 3.00% Health Care Cost Trends: 5.00% to 11.87% initial; 4% ultimate	Valuation Date: December 31, 2020 for pensions; December 31, 2019 for OPEB Actuarial Cost Method: Individual entry age Investment Rate of Return: 7.2% for pensions; 6.0% for OPEB Inflation: 3.25% Projected Salary Increases: 3.25% - 10.75% Cost-of-Living Adjustments: Pre-1/7/2013 Retirees: 3.00% Simple Post-1/7/2013 Retirees: 0.50% Simple through 2021, then 2.15% Simple Health Care Cost Trends: 8.50% initial;
Mortality Rates	Post-retirement mortality rates for healthy retirees are based on the RP-2014 Annuitant Mortality Table with 50% of rates through age 69, 70% of rates between ages 70 and 79, 90% of rates between ages 80 and 84, and 100% of rates thereafter, projected forward generationally using mortality improvement scale MP-2016. Preretirement mortality rates are based on RP-2014 Employee Mortality Tables, projected forward generationally using mortality improvement scale MP-2016. Post-retirement disabled mortality rates are based on the RP2014 Disabled Mortality Table with 90% of rates for males and 100% of rates for females, projected forward generationally using mortality improvement scale MP-2016.	Pre-retirement mortality rates are based on the RP-2014 Employees mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates are based on the RP-2014 Healthy Annuitant mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Post-retirement mortality rates for disabled retirees are based on the RP-2014 Disabled mortality table for males and females, adjusted for mortality improvement back to the observation period base year of 2006. The base year for males and females was then established to be 2015 and 2010, respectively. Mortality rates for a particular calendar year are determined by applying the MP-2015 mortality improvement scale to all of the above described tables.
Date of Last Experience Study	June 30, 2016	December 31, 2015

STRS-Ohio **OPERS** The long term expected rates of return on Investment The 10 year expected real rate of return on Return defined benefit pension and health care defined benefit pension and health care **Assumptions** plan investments was determined by STRS investment assets were determined using a building-block method in which best-estimate Ohio's investment consultant by developing best estimates of expected future real rates ranges of expected future real rates of return of return for each major asset class. The are developed for each major asset class. target allocation and long-term expected These ranges are combined to produce the real rate of return for each major asset class long-term expected rate of return by weighting are summarized as follows: the expected future real rates of return by the target asset allocation percentage, adjusted Long Term for inflation. Target Expected Asset Class Allocation Return* Domestic Equity 7.35% The following table displays the Board-International Equity 23.0% 7.55% approved asset allocation policy for defined Alternatives 17.0% 7.09% 21.0% 3.00% Fixed Income benefit pension assets for 2020 and the long-Real Estate 10.0% 6.00% Liquidity Reserves 1.0% 2.25% term expected real rates of return: Total 100% * Returns presented as geometric means Long Term Target Expected Return* Asset Class Allocation Fixed Income Domestic Equity 5.64% 21.0% Real Estate 10.0% 5 39% Private Equity 12.0% 10 42% International Equity 23.0% 7.36% Other Investments 4.75% 9.0% 100.0% * Returns presented as arithmetic means The following table displays the Boardapproved asset allocation policy for health care assets for 2020 and the long-term expected real rates of return: Long Term Target Expected Return* Asset Class Allocation Fixed Income 34.0% 1.07%

Domestic Equities

International Equities

* Returns presented as arithmetic means

Other Investments

REITs

Total

25.0%

7.0%

25.0%

9.0%

100.0%

5.64%

6.48%

7.36%

4.02%

Discount Rate

Pensions -- The discount rate used to measure the total pension liability was 7.45% as of June 30, 2020. The projection of cash flows used to determine the discount rate assumes that member and employer contributions will be made at the statutory contribution rates in accordance with the rate increases described above. For this purpose, only emplover contributions that are intended to fund benefits of current plan members and their beneficiaries are included. Based on those assumptions, STRS Ohio's fiduciary net position was projected to be available to make all projected future benefit payments to current plan members as of June 30, 2020. Therefore, the long-term expected rate of return on pension plan investments of 7.45% was applied to all periods of projected benefit payments to determine the total pension liability as of June 30, 2020.

OPEB -- The discount rate used to measure the total OPEB liability was 7.45% as of June 30, 2020. The projection of cash flows used to determine the discount rate assumes STRS Ohio continues to allocate no employer contributions to the health care fund. Based on these assumptions, the OPEB plan's fiduciary net position was projected to be sufficient to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on health care plan investments of 7.45% was applied to all periods of projected health care costs to determine the total OPEB liability as of June 30, 2020.

Pensions -- The discount rate used to measure the total pension liability was 7.2% for the Traditional Pension Plan, the Combined Plan and the Member-Directed Plan. The projection of cash flows used to determine the discount rate assumed that contributions from plan members and those of the contributing employers are made at the contractually required rates, as actuarially determined. Based on those assumptions, the pension plan's fiduciary net position was projected to be available to make all projected future benefit payments of current plan members. Therefore, the long-term expected rate of return on pension plan investments was applied to all periods of projected benefit payments to determine the total pension liability.

OPEB – A single discount rate of 6.00% was used to measure the OPEB liability on the measurement date of December 31, 2020. Projected benefit payments are required to be discounted to their actuarial present value using a single discount rate that reflects (1) a long-term expected rate of return on OPEB plan investments (to the extent that the health care fiduciary net position is projected to be sufficient to pay benefits), and (2) tax-exempt municipal bond rate based on an index of 20year general obligation bonds with an average AA credit rating as of the measurement date (to the extent that the contributions for use with the long-term expected rate are not met). This single discount rate was based on an expected rate of return on the health care investment portfolio of 6.00% and a municipal bond rate of 2.00%. The projection of cash flows used to determine this single discount rate assumed that employer contributions will be made at rates equal to the actuarially determined Based contribution rate. on assumptions, the health care fiduciary net position and future contributions were sufficient to finance health care costs through 2120. As a result, the long-term expected rate of return on health care investments was applied to projected costs through the year 2120, the duration of the projection period

	STRS-Ohio	OPERS
		through which projected health care payments are fully funded.
Changes in Assumptions Since the Prior	Pensions – There were no changes in assumptions since the prior measurement date of June 30, 2019.	Pensions – There were no changes in assumptions since the prior measurement date of December 31, 2019.
Measurement Date	OPEB There were no changes in assumptions since the prior measurement date of June 30, 2019.	OPEB The discount rate was increased from 3.16% to 6.00% based on the methodology defined under GASB Statement No. 74, Financial Reporting for Postemployment Benefit Plans Other Than Pension Plans (OPEB).
Benefit Term Changes Since the Prior	Pensions – There were no changes in benefit terms since the prior measurement date of June 30, 2019.	Pensions – There were no changes in benefit terms since the prior measurement date of December 31, 2019.
Measurement Date	OPEB The non-Medicare subsidy percentage was increased effective January 1, 2021 from 1.984% to 2.055% per year of service. The non-Medicare frozen subsidy base premium was increased effective January 1, 2021. The Medicare subsidy percentages were adjusted effective January 1, 2021 to 2.1% for the AMA Medicare plan. The Medicare Part B monthly reimbursement elimination date was postponed indefinitely.	OPEB – On January 15, 2020, the Board approved several changes to the health care plan offered to Medicare and pre-Medicare retirees in efforts to decrease costs and increase the solvency of the health care plan. These changes are effective January 1, 2022, and include changes to base allowances and eligibility for Medicare retirees, as well as replacing OPERS-sponsored medical plans for pre-Medicare retirees with monthly allowances, similar to the program for Medicare retirees.
Sensitivity of Net Pension Liability to	1% Decrease Current Rate 1% Increase (6.45%) (7.45%) (8.45%)	1% Decrease Current Rate 1% Increase (6.2%) (7.2%) (8.2%)
Changes in Discount Rate Sensitivity of	\$ 1,674,185 \$ 1,175,835 \$ 753,526	\$ 2,906,112 \$ 1,503,497 \$ 338,004
Net OPEB Liability	1% Decrease Current Rate 1% Increase (6.45%) (7.45%) (8.45%)	1% Decrease Current Rate 1% Increase (5.00%) (6.00%) (7.00%)
(Asset) to Changes in Discount Rate	\$ (74,309) \$ (85,406) \$ (94,822)	\$ (47,204) \$ (189,776) \$ (307,093)
Sensitivity of Net OPEB Liability (Asset) to	1% Decrease in Current 1% Increase in Trend Rate Trend Rate Trend Rate	1% Decrease in Current 1% Increase in Trend Rate Trend Rate Trend Rate
Changes in Medical Trend Rate	\$ (94,237) \$ (85,406) \$ (74,649)	\$ (194,464) \$ (189,776) \$ (184,661)

Defined Contribution Plans

ARP is a defined contribution pension plan. Full-time administrative and professional staff and faculty may choose enrollment in ARP in lieu of OPERS or STRS Ohio. Classified civil service employees hired on or after August 1, 2005 are also eligible to participate in ARP. ARP does not provide disability benefits, annual cost-of-living adjustments, post-retirement health care benefits or death benefits to plan members and beneficiaries. Benefits are entirely dependent on the sum of contributions and investment returns earned by each participant's choice of investment options.

OPERS also offers a defined contribution plan, the Member-Directed Plan (MD). The MD plan does not provide disability benefits, annual cost-of-living adjustments, post-retirement health care benefits or death benefits to plan members and beneficiaries. Benefits are entirely dependent on the sum of contributions and investment returns earned by each participant's choice of investment options.

STRS Ohio also offers a defined contribution plan in addition to its long established defined benefit plan. All employee contributions and employer contributions at a rate of 9.53% are placed in an investment account directed by the employee. Disability benefits are limited to the employee's account balance. Employees electing the defined contribution plan receive no post-retirement health care benefits.

Combined Plans

STRS Ohio offers a combined plan with features of both a defined contribution plan and a defined benefit plan. In the combined plan, employee contributions are invested in self- directed investments, and the employer contribution is used to fund a reduced defined benefit. Employees electing the combined plan receive post-retirement health care benefits.

OPERS also offers a combined plan. This is a cost-sharing multiple-employer defined benefit plan that has elements of both a defined benefit and defined contribution plan. In the combined plan, employee contributions are invested in self-directed investments, and the employer contribution is used to fund a reduced defined benefit. Employees electing the combined plan receive post-retirement health care benefits. OPERS provides retirement, disability, survivor and post-retirement health benefits to qualifying members of the combined plan.

Summary of Employer Pension and OPEB Expense

For the years ended June 30, 2022 and 2021, the university recognized pension and OPEB expense of (\$310,382) and (\$770,322), respectively.

Pension and OPEB expenses are allocated to institutional functions on the Statement of Revenues, Expenses and Other Changes in Net Position.

Both STRS Ohio and OPERS issue separate, publicly available financial reports that include financial statements and required supplemental information. These reports may be obtained by contacting the two organizations.

Notes to Financial Statements – Years Ended June 30, 2022 and 2021

(dollars in thousands)

STRS Ohio

275 East Broad Street Columbus, OH 43215-3371 (614) 227-4090 (888) 227-7877 www.strsoh.org **OPERS**

277 East Town Street Columbus, OH 43215-4642 (614) 222-5601 (800) 222-7377 www.opers.org/investments/cafr.shtml

OSU Physicians Retirement Plan

Retirement benefits are provided for the employees of OSUP through a tax-sheltered 403(b) and 401(a) defined contribution plan administered by an insurance company. OSUP is required to make nondiscretionary contributions of no less than 7.5% under the Interim Retirement Plan; however, some subsidiaries make an additional discretionary contribution of up to 17.5%, for a range of total employer contributions of 7.5% to 25%. Employees are allowed, but not required, to make contributions to the 403(b) plan. OSUP's share of the cost of these benefits was \$7,800 and \$6,600 for the years ended June 30, 2022 and 2021, respectively. Employee contributions were \$3,500 and \$2,700 for the years ended June 30, 2022 and 2021, respectively.

415(m) Plans

The university maintains two supplemental 415(m) retirement plans. These plans are unfunded and constitute an unsecured promise by the university to make benefit payments in the future from its general assets. The university sets aside assets for the 415(m) plans, which are invested primarily in mutual funds. These assets totaled \$176,092 and \$190,613 at June 30, 2022 and 2021, respectively, and are reported as Other Noncurrent Assets and Other Noncurrent Liabilities in the Statement of Net Position.

NOTE 16 — CAPITAL PROJECT COMMITMENTS

At June 30, 2022, the university is committed to future contractual obligations for capital expenditures of approximately \$1,351,438 for the primary institution and \$18,900 for discretely presented component units. These projects are funded by the following sources:

	Primary		tely Presented
	 Institution	Com	ponent Units
State appropriations	\$ 14,835	\$	-
Internal and other sources	1,336,603		18,900
Total	\$ 1,351,438	\$	18,900

NOTE 17 — CONTINGENCIES AND RISK MANAGEMENT

The university is a party in a number of legal actions. While the final outcome cannot be determined at this time, management is of the opinion that the liability, if any, for these legal actions will not have a material adverse effect on the university's financial position.

The university is self-insured for the Health System's professional malpractice liability, employee health benefits, workers' compensation and employee life, accidental death and dismemberment benefits. Additional details regarding these self-insurance arrangements are provided in Note 8. The university also carries commercial insurance policies for various property, casualty and excess liability risks. Over the past three years, settlement amounts related to these insured risks have not exceeded the university's coverage amounts.

Under the terms of federal grants, periodic audits are required and certain costs may be questioned as not being appropriate expenditures under the terms of the grants. Such audits could lead to reimbursements to the grantor agencies. While questioned costs may occur, ultimate repayments required of the university have been infrequent in prior years.

The global outbreak of COVID-19, a new strain of coronavirus that can result in severe respiratory disease, was first detected in December of 2019 and subsequently spread across six continents impacting many countries, including the United States. The COVID-19 outbreak has altered the behavior of businesses and people in a manner that has had and is expected to continue to have effects on global and local economies, including the State of Ohio.

On March 13, 2020, the university announced that it would suspend face-to face instruction and transition to remote instruction for the remainder of the spring semester. Nearly all university housing and dining facilities were closed on March 22, 2020 and remained closed through the summer 2020 semester.

On June 3, 2020, the university announced that it would resume in-person classes for the Autumn 2020 semester, with a mix of on-line, in-person and blended courses to reduce the number of students, faculty and staff that were on campus at any one time. The university conducted

extensive testing of students, faculty and staff throughout the 2020-2021 academic year. As vaccination rates continued to increase and other health and safety protocols remained effective, the university announced that it expected to return to more of a traditional university experience for the Autumn 2021 semester. The University State of Emergency, which was declared by the university president on March 22, 2020, was lifted effective July 1, 2021.

Ohio and the rest of the nation experienced a significant surge of COVID-19 cases starting in the last two months of 2021, due in large part to the rapid spread of the Omicron variant. Prior to commencement of the Spring 2022 semester, the university implemented a number of measures to continue to minimize the spread of COVID-19 on its campuses. As the spread of the Omicron variant slowed in late January 2022, the university announced adjustments to its health and safety protocols, including transitioning back to in-person student meetings and events, restoring seating to full capacity in on-campus dining areas and expanding group activities at campus recreation centers. The university also announced it was reinstating concessions at athletic events.

The impact of COVID-19 on university finances and operations may continue for at least the coming (FY2023) fiscal year, depending on vaccination rates and whether the COVID-19 virus or variations of the virus (including the Omicron variant) continue to spread in the United States and around the world. Future adverse consequences of the COVID-19 pandemic may include, but are not limited to: a decline in enrollment (including a disproportional decline in enrollment by international students); a decline in demand for uUniversity housing; a decline in demand for University programs that involve travel or that have international connections; cancellation, postponement and/or reduced attendance for athletic events; and an increase in costs associated with purchasing of personal protective equipment and implementing community-wide testing programs.

NOTE 18 — PARKING LEASE AND CONCESSION AGREEMENT

On September 21, 2012, the university entered into a 50-year lease and concession agreement with QIC Global Infrastructure (QIC GI). CampusParc LP, a QIC GI affiliate, owns and operates the university's parking concession on QIC GI's behalf. Under the agreement, CampusParc operates, maintains and retains parking revenues from the university's parking lots and garages. This agreement also regulates the parking rates that may be charged and future increases in these rates. The university received lump-sum payments totaling \$483,000 from QIC GI and used the proceeds to establish endowment funds, with income distributions internally designated to support student scholarships, faculty initiatives and research, transportation and sustainability and the university arts district.

The unamortized lump-sum payment under this service concession arrangement is reported as a deferred inflow of resources and is being amortized to operating revenue over the life of the agreement. Deferred inflows related to the parking agreement were \$387,652 and \$397,283 at June 30, 2022 and 2021, respectively. The university reports the parking lots and garages as capital assets with a carrying amount of \$122,953 and \$122,968 at June 30, 2022 and 2021, respectively.

NOTE 19 — UTILITY SYSTEM LEASE AND CONCESSION AGREEMENT

On April 10, 2017, the university entered into a 50-year agreement to lease the university's utility system to Ohio State Energy Partners (OSEP) and grant it the exclusive right to operate the utility system and provide utility services to the Columbus campus. On July 6, 2017, the university received an upfront payment of \$1,089,914. The upfront payment is reported as an Advance from Concessionaire and is being amortized as a reduction to operating expense (Operation and Maintenance of Plant) on a straight-line basis over the term of the agreement.

Under the agreement, OSEP operates, maintains and makes capital investments in the utility system and charges the university a Utility Fee, which includes fixed, variable and operating and maintenance (O&M) components. OSEP capital investments in the utility system are recognized as capital assets and a related long-term payable to the concessionaire. The fixed and O&M components of the Utility Fee are recognized as operating expense. The variable component of the Utility Fee will be recognized as a reduction in the long-term payable to the concessionaire and interest expense.

The university recognized fixed and O&M utility fees totaling \$61,707 and \$59,372, respectively for the years ended June 30, 2022 and 2021. The carrying amounts of OSEP capital investments and related payable to the concessionaire at June 30, 2022 and 2021 were \$374,540 and \$235,869, respectively.

NOTE 20 — COMBINING INFORMATION FOR BLENDED COMPONENT UNITS

As indicated in the Basis of Presentation in Note 1, the university consolidates certain component units in a blended presentation. Condensed combining financial information for the years ended June 30, 2022 and 2021 is presented below.

Condensed Combining Information – Year Ended June 30, 2022

		OSU	OSU	Oval			
	F	oundation	Health Plan	Limited	Pelotonia	El	iminations
Condensed statements of net position:							
Current assets	\$	59,060	\$ 4,379	\$ 51,962	\$ 26,550	\$	(12,720)
Capital assets, net		-	365	-	4,033		-
Other assets		1,572,142	731	-	1,400		(63,940)
Amounts receivable from the university		-	4,248	-			
Total assets	\$	1,631,202	\$ 9,723	\$ 51,962	\$ 31,983	\$	(76,660)
Current liabilities	\$	2,708	\$ 912	\$ 41	\$ 1,178	\$	-
Noncurrent liabilities		42,335	635	23,487	76,660		(76,660)
Amounts payable to the university		2	4,248	-	-		-
Deferred inflows		9,475	-	-	-		-
Total liabilities and deferred inflows		54,520	5,795	23,528	77,838		(76,660)
Net investment in capital assets Restricted:		-	-	-	4,033		-
Nonexpendable		1,150,341	_	_	_		_
Expendable		409,874	_	_	26,772		(76,660)
Unrestricted		16,467	3,928	28,434	(76,660)		76,660
Total net position		1,576,682	3,928	28,434	(45,855)		-
Total liabilities, deferred inflows and net position	\$	1,631,202	\$ 9,723	\$ 51,962	\$ 31,983	\$	(76,660)

	ı	OSU Foundation	OSU Health Plan	Oval Limited	Pelotonia	Eliminations
Condensed statements of revenues, expenses						
and changes in net position:						
Operating revenues:	ć	205 (12.047	ć (2.222) ć	272	ć
Other sales, services and rental income	\$	385 \$. , , , ,		\$ -
Total operating revenues		385	12,947	(3,223)	272	-
Operating expenses, excluding depreciation		7,168	12,936	(212)	21,778	-
Depreciation expense		-	51	-	1,677	-
Total operating expenses		7,168	12,987	(212)	23,455	-
Net operating income (loss)		(6,783)	(40)	(3,011)	(23,183)	-
Non-operating revenues and expenses:						
Gifts for current use		198,839	-	-	29,510	-
Net investment income (loss)		(32,384)	14	(5,470)	40	-
Federal COVID-19 assistance programs		-	-	-	_	-
Other non-operating revenue (expense)		1,191	-	-	-	-
Net non-operating revenue (expense)		167,646	14	(5,470)	29,550	-
Capital contributions and additions to		136,982	-	-	-	-
permanent endowments						
Transfers from (to) the university		(293,217)	(84)	-	12,673	-
Change in net position		4,628	(110)	(8,481)	19,040	-
Beginning net position		1,572,054	4,038	36,915	(64,895)	-
Ending net position	\$	1,576,682	3,928	\$ 28,434 \$	(45,855)	\$ -
Condensed statements of cash flows:						
Net cash provided (used) by:						
Operating activities	\$	(4,477)	39	\$ (1,108) \$	(20,655)	\$ -
Noncapital financing activities		(40,255)	(872)	-	30,866	-
Capital and related financing activities		59,775	(375)	-	(3,667)	-
Investing activities		(14,026)	84	996	40	
Net increase (decrease) in cash		1,017	(1,124)	(112)	6,584	-
Beginning cash and cash equivalents		217	4,104	1,290	6,124	-
Ending cash and cash equivalents	\$	1,234	2,980	\$ 1,178 \$	12,708	\$ -

Condensed Combining Information – Year Ended June 30, 2021

	_	OSU oundation		OSU Health Plan		Oval Limited		Pelotonia	rl:	minations
		oundation		realth Plan		Limitea		Pelotonia	EII	minations
Condensed statements of net position:										
Current assets	\$	59,498	\$	5,584	\$	57,136	\$	19,706	\$	(12,617)
Capital assets, net		-		41		-		2,043		-
Other assets		1,576,137		731		-		3,000		(76,715)
Amounts receivable from the university		-		(6)		-				
Total assets	\$	1,635,635	\$	6,350	\$	57,136	\$	24,749	\$	(89,332)
Company to be that are	,	2.652	Ļ	050	۲.	42	۲.	244	ć	
Current liabilities	\$	3,652	\$	850	\$	42	\$	311	\$	- (00 222)
Noncurrent liabilities		42,735		680		20,179		89,333		(89,332)
Amounts payable to the university		-		782		-		-		-
Deferred inflows		17,194		-		-		-		-
Total liabilities and deferred inflows		63,581		2,312		20,221		89,644		(89,332)
Net investment in capital assets		-		-		-		-		-
Restricted:										
Nonexpendable		1,073,269		-		-		-		-
Expendable		481,161		-		-		-		(89,333)
Unrestricted		17,624		4,038		36,915		(64,895)		89,333
Total net position		1,572,054		4,038		36,915		(64,895)		-
Total liabilities, deferred inflows and net position	\$	1,635,635	\$	6,350	\$	57,136	\$	24,749	\$	(89,332)

	OSU	OSU		Oval		
	 oundation	Health Plan		Limited	Pelotonia	Eliminations
Condensed statements of revenues, expenses						
and changes in net position:						
Operating revenues:						
Other sales, services and rental income	\$ 15	\$ 12,70	2 \$	(1,781) \$	281	\$ -
Total operating revenues	15	12,70	2	(1,781)	281	-
Operating expenses, excluding depreciation	5,270	12,65	6	(202)	4,428	-
Depreciation expense	 -	3:	3	-	162	-
Total operating expenses	5,270	12,68	9	(202)	4,590	-
Net operating income (loss)	(5,255)	1	3	(1,579)	(4,309)	-
Non-operating revenues and expenses:						
Gifts for current use	136,414	-		-	23,249	-
Net investment income (loss)	335,238	1	8	6,542	-	-
Federal COVID-19 assistance programs	-	-		-	625	-
Other non-operating revenue (expense)	 3,186	-		-	-	-
Net non-operating revenue (expense)	474,838	1	8	6,542	23,874	-
Capital contributions and additions to	142,943	-		-	-	-
permanent endowments						
Transfers from (to) the university	 (258,132)	12	0	-	12,795	-
Change in net position	354,394	15	1	4,963	32,360	-
Beginning net position	 1,217,660	3,88	7	31,952	(97,255)	-
Ending net position	\$ 1,572,054	\$ 4,03	8 \$	36,915 \$	(64,895)	\$ -
Condensed statements of cash flows:						
Net cash provided (used) by:						
Operating activities	\$ (4,850)	\$ (87	5) \$	(2,028) \$	(4,677)	\$ -
Noncapital financing activities	(60,754)	90	8	-	8,103	-
Capital and related financing activities	79,612	-		-	(2,205)	-
Investing activities	 (14,026)	(70	8)	2,223		-
Net increase (decrease) in cash	 (18)	(67	5)	195	1,221	-
Beginning cash and cash equivalents	 235	4,77		1,095	4,903	-
Ending cash and cash equivalents	\$ 217	\$ 4,10	4 \$	1,290 \$	6,124	\$ -

NOTE 21 — COMBINING INFORMATION FOR DISCRETELY PRESENTED COMPONENT UNITS

As indicated in the Basis of Presentation in Note 1, the university consolidates certain component units in a discrete presentation. Condensed combining financial information for the years ended June 30, 2022 and 2021 is presented below.

Condensed Combining Information – Year Ended June 30, 2022

	P	OSU Physicians		Campus Partners	Tr	ansportation Research Center	ı	Dental Faculty Practice Plan	Science and Technology Campus Corporation			Total iscretely Presented Component Units
Condensed statements of net position:												
Current assets	\$	300,653	\$	7,890	\$	13,047	\$	5,188	\$	14,345	\$	341,123
Capital assets, net		97,967		210,744		52,515		233		27,123		388,582
Other assets		149		16,223		1,713		-		2,187		20,272
Amounts receivable from the university		72,383		56,656		4,609		-		1,934		135,582
Total assets and deferred outflows	\$	471,152	\$	291,513	\$	71,884	\$	5,421	\$	45,589	\$	885,559
Current liabilities	\$	52,487	\$	6,327	\$	7,341	\$	-	\$	2,966	\$	69,121
Noncurrent liabilities		21,125		-		9,822		-		4,700		35,647
Amounts payable to the university		168,377		171,204		18,134		44		8,976		366,735
Deferred inflows		8,827		120,995		1,708		-		4,986		136,516
Total liabilities and deferred inflows		250,816		298,526		37,005		44		21,628		608,019
Net investment in capital assets Unrestricted		14,897 205,439		36,112 (43,125)		29,731 5,148		233 5,144		18,063 5,898		99,036 178,504
Total net position		220,336		(7,013)		34,879		5,377		23,961		277,540
Total liabilities, deferred inflows and net position	\$	471,152	\$	291,513	\$	71,884	\$	5,421	\$	45,589	\$	885,559

	1	OSU Physicians	Campus Partners	Tra	ansportation Research Center	ı	Dental Faculty Practice Plan	Science and Technology Campus Corporation	Total etely Presented mponent Units
Condensed statements of revenues, expenses									
and changes in net position:									
Operating revenues:									
Grants and contracts	\$	-	\$ 12,844	\$	53,989	\$	-	\$ 7,623	\$ 74,456
Sales and services of OSU Physicians		701,680	-		=		-	-	701,680
Other sales, services and rental income		2,079	1,423		252		10,027	379	14,160
Total operating revenues		703,759	14,267		54,241		10,027	8,002	790,296
Operating expenses, excluding depreciation		681,611	9,950		46,210		8,596	3,743	750,110
Depreciation expense		9,788	5,381		6,982		102	1,332	23,585
Total operating expenses		691,399	15,331		53,192		8,698	5,075	773,695
Net operating income (loss)		12,360	(1,064)		1,049		1,329	2,927	16,601
Non-operating revenues and expenses:									
CARES Assistance		11,686	-		-		-	-	11,686
Net investment income (loss)		(8,440)	104		178		(234)	13	(8,379)
Interest expense		(3,187)	-		(1,802)		-	(467)	(5,456)
Other non-operating revenue (expense)		(6,606)	1,306		(357)		2	-	(5,655)
Net non-operating revenue (expense)		(6,547)	1,410		(1,981)		(232)	(454)	(7,804)
Capital contributions and additions to permanent endowments		-	-		1,182		-	-	1,182
Change in net position		5,813	346		250		1,097	2,473	9,979
Beginning net position, as restated		214,523	(7,359)		34,629		4,280	21,488	267,561
Ending net position	\$	220,336	\$ (7,013)	\$	34,879	\$	5,377	\$ 23,961	\$ 277,540
Condensed statements of cash flows:									
Net cash provided (used) by:									
Operating activities	\$	(11,217)	\$ (739)	\$	2,586	\$	1,884	\$ 3,662	\$ (3,824)
Noncapital financing activities		25,067	2,068		-		-	(1,034)	26,101
Capital and related financing activities		(9,289)	(2,539)		(2,337)		(633)	(943)	(15,741)
Investing activities		(90,355)	(471)		-		-	13	(90,813)
Net increase (decrease) in cash		(85,794)	(1,681)		249		1,251	1,698	(84,277)
Beginning cash and cash equivalents		237,247	5,774		3,093		2,562	12,082	260,758
Ending cash and cash equivalents	\$	151,453	\$ 4,093	\$	3,342	\$	3,813	\$ 13,780	\$ 176,481

Condensed Combining Information – Year Ended June 30, 2021

					Tr	ansportation		Dental		Science		Total
				Campus		Research		Faculty		and Technology	0	Discretely Presented
	F	hysicians		Partners		Center	F	Practice Plan	Campus Corporation			Component Units
Condensed statements of net position:												
Current assets	\$	298,779	\$	8,526	\$	10,966	\$	4,625	\$	12,824	\$	335,720
Capital assets, net		68,362		194,459		53,200		271		28,147		344,439
Other assets		27		14,269		1,714		-		530		16,540
Amounts receivable from the university		80,023		57,219		4,908		-		4,359		146,509
Deferred outflows		-		-		-		-		-		-
Total assets and deferred outflows	\$	447,191	\$	274,473	\$	70,788	\$	4,896	\$	45,860	\$	843,208
Current liabilities	\$	37,353	\$	10,907	\$	10,663	\$	2	\$	1,332	\$	60,257
Noncurrent liabilities		18,643		438		10,032		-		4,783		33,896
Amounts payable to the university		165,931		146,887		16,817		614		10,010		340,259
Deferred inflows		9,728		123,717		-		_		7,790		141,235
Total liabilities and deferred inflows		231,655		281,949		37,512		616		23,915		575,647
Net investment in capital assets		7,431		185,856		42,770		(73)		27,895		263,879
Unrestricted		208,105		(193,332)		(9,494)		4,353		(5,950)		3,682
Total net position		215,536		(7,476)		33,276		4,280		21,945		267,561
Total liabilities, deferred inflows and net position	\$	447,191	\$	274,473	\$	70,788	\$	4,896	\$	45,860	\$	843,208

Notes to Financial Statements – Years Ended June 30, 2022 and 2021 (dollars in thousands)

	OSU Physicians	Campus Partners	Tr	ansportation Research Center	Dental Faculty Practice Plan	Science and Technology apus Corporation	Total cretely Presented component Units
Condensed statements of revenues, expenses							•
and changes in net position:							
Operating revenues:							
Grants and contracts	\$ -	\$ 9,445	\$	41,748	\$ -	\$ 7,303	\$ 58,496
Sales and services of OSU Physicians	647,382	-		-	-	-	647,382
Other sales, services and rental income	 -	-		-	10,053	-	10,053
Total operating revenues	647,382	9,445		41,748	10,053	7,303	715,931
Operating expenses, excluding depreciation	596,570	6,220		40,057	7,782	3,547	654,176
Depreciation expense	 7,750	3,881		5,945	65	1,332	18,973
Total operating expenses	 604,320	10,101		46,002	7,847	4,879	673,149
Net operating income (loss)	43,062	(656)		(4,254)	2,206	2,424	42,782
Non-operating revenues and expenses:							
Net investment income	53	109		1,241	332	18	1,753
Interest expense	(2,003)	-		(1,502)	-	(523)	(4,028)
Other non-operating revenue (expense)	 (31,237)	1,119		(327)	-	-	(30,445)
Net non-operating revenue (expense)	 (33,187)	1,228		(588)	332	(505)	(32,720)
Changes in net position							
Capital contributions and changes in net position	-	278		663	-	-	941
Change in net position	9,875	850		(4,179)	2,538	1,919	11,003
Beginning net position, as previously reported	205,661	(7,057)		37,455	1,742	20,026	257,827
Cumulative effect of accounting change	 -	(1,269)			-	<u> </u>	(1,269)
Ending net position	\$ 215,536	\$ (7,476)	\$	33,276	\$ 4,280	\$ 21,945	\$ 267,561
Condensed statements of cash flows:							
Net cash provided (used) by:							
Operating activities	\$ 82,167	\$ 16,388	\$	(566,854)	\$ 1,720	\$ 10,209	\$ (456,370)
Noncapital financing activities	(30,532)	37,844		2,442	-	(984)	8,770
Capital and related financing activities	2,697	(56,923)		562,571	217	(1,354)	507,208
Investing activities	 13,908	-		519	-	18	14,445
Net increase (decrease) in cash	68,240	(2,691)		(1,322)	1,937	7,889	74,053
Beginning cash and cash equivalents	 169,007	8,465		4,415	625	4,193	186,705
Ending cash and cash equivalents	\$ 237,247	\$ 5,774	\$	3,093	\$ 2,562	\$ 12,082	\$ 260,758

NOTE 22 — SEGMENT INFORMATION

A segment is an identifiable activity for which one or more revenue bonds are outstanding. A segment has a specific identifiable revenue stream pledged in support of revenue bonds or other revenue-backed debt and has related expenses, gains, losses, assets and liabilities that can be identified. The university has one segment that meets the GASB reporting requirements.

The Office of Student Life operates student housing, dining and recreational sports facilities on the university's main and regional campuses. In January 2013, the university issued \$337,955 of Special Purpose General Receipts Bonds, Series 2013A. These bonds are solely payable from, and secured by, a pledge of the gross revenues of Special Purpose Revenue Facilities. Special Purpose Revenue Facilities are defined in the Series 2013 Supplement as all housing and dining facilities and such auxiliary facilities as shall constitute recreation facilities owned by the university. Special Purpose Pledged Revenues include all revenues, fees, rentals, rates, charges, insurance

proceeds and other moneys derived from the ownership or operation of these facilities. Special Purpose Pledged Revenues totaled \$204,783 and \$125,371 for the years ended June 30, 2022 and 2021, respectively.

Condensed financial information for the Special Purpose Revenue Facilities, before the elimination of certain intra-university transactions, as of and for the years ended June 30, 2022 and 2021 is as follows:

Segment Disclosure Information - Year Ended June 30, 2022 and June 30, 2021

Assets and deferred outflows: Current assets \$ 51,902 \$ 51,391 Capital assets \$ 51,902 \$ 724,979 Liabilities and deferred inflows: Current liabilities \$ 9,664 \$ 6,571 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities \$ 9,664 \$ 6,571 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities \$ 321,683 335,633 Total liabilities \$ 321,683 335,633 Unrestricted \$ 321,683 335,633 Unrestricted \$ 42,238 44,820 Total net position \$ 363,921 380,453 Total net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses 34,594 34,594 Amounts payable to the university - Series 2013A Bonds 34,594 34,594 Condensed Statement of Revenues, Expenses 34,594 34,594 Condensed Statement of Revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation \$ 117,919 90,296 Depreciation expense \$ 34,594 90,296 Operating expenses, excluding depreciation \$ 117,919 90,296 Operating income \$ 52,270 1,348 Nonoperating revenues, net \$ 14,431 14,576 Net income (loss) before transfers \$ 37,839 13,228 Transfers from (to) other university units, net \$ 14,431 14,576 Net income (loss) before transfers \$ 37,839 13,228 Transfers from (to) other university units, net \$ 164,371 \$ 2,207 Increase (decrease) in net position \$ 380,453 341,474 Ending net position \$ 380,453 341,474 Ending net position \$ 38,986 \$ 34,804 Capital and related financing activities \$ 38,986 \$ 34,804 Capital and related financing activities \$ 30,580 \$ 242 Net increase (decrease) in cash \$ 42 \$ 25,039 Ending cash and cash equivalents \$ 50,818 \$ 25,779 Ending cash and cash equivalents \$ 50,818 \$ 25,779 Ending cash and cash equivalents \$ 50,818 \$ 25,779 Ending cash and cash equivalents \$ 50,818 \$ 25,779 Endin			2022	2021
Current assets \$ 51,902 \$ 51,391 Capital assets 659,638 673,588 Total assets \$ 711,540 \$ 724,979 Liabilities and deferred inflows: \$ 9,664 \$ 6,571 Current liabilities \$ 9,664 \$ 6,571 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities \$ 321,683 335,633 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses \$ 2022 2021 An Changes in Net Position \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation \$ 117,919 90,296 Operating expenses, excluding depreciation \$ 117,919 90,296 Operating income \$ 52,270 1,348 Nonoperating revenues, net \$ 14,431 1,4576 Net income (loss) before transfers 37,839 <td< td=""><td>Condensed Statement of Net Position</td><td>·</td><td></td><td>_</td></td<>	Condensed Statement of Net Position	·		_
Capital assets 659,638 673,588 Total assets \$ 711,540 \$ 724,979 Liabilities and deferred inflows: \$ 9,664 \$ 6,571 Current liabilities 337,955 337,955 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities 321,683 335,635 Net position: 321,683 335,633 Net investment in capital assets 321,683 348,200 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position \$ 117,940 \$ 2021 Condensed Statement of Revenues, Expenses and Changes in Net Position \$ 117,7919 \$ 20,720 Operating expenses, excluding depreciation \$ 117,7919 \$ 33,726 Operating expenses, excluding depreciation \$ 121,722 \$ 1,348 Nonoperating revenues, net \$ 14,431 \$ 14,576 <tr< td=""><td>Assets and deferred outflows:</td><td></td><td></td><td></td></tr<>	Assets and deferred outflows:			
Total assets \$ 711,540 \$ 724,979 Diabilities and deferred inflows: Current liabilities \$ 9,664 \$ 6,571 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities 347,619 344,526 Net position: Net investment in capital assets 321,683 335,633 Unrestricted 42,238 42,238 335,633 Total liabilities and net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation \$ 117,919 \$ (90,296) Operating income \$ 32,270 1,348 Nonoperating revenues, net \$ (14,431 (14,576) Net income (loss) before transfers \$ 37,839 \$ (13,228) Transfers from (to) other university units, net \$ (54,371 \$ 52,207 Increase (decrease) in net position \$ 380,453 \$ 341,474 Ending net position \$ 380,453 \$ 3	Current assets	\$	51,902 \$	51,391
Current liabilities and deferred inflows: Current liabilities \$ 9,664 \$ 6,571 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities 347,619 344,526 Net position: 321,683 335,633 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total net position \$ 711,540 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position \$ 2022 2021 Condensed Statement of Revenues - operating \$ 204,783 125,370 Operating expenses, excluding depreciation (117,919 90,296 Operating expenses, excluding depreciation (117,919 90,296 Operating income \$2,270 1,348 Nonoperating revenues, net (14,431 (14,576 Net income (loss) before transfers 37,839 (13,228 Transfers from (to) other university units, net (54,371 52,207 Increase (decrease) in net position (16,532 38,979 Beginning net position \$363,921 \$380,453 August	Capital assets		659,638	673,588
Current liabilities \$ 9,664 \$ 6,571 Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities 347,619 344,526 Net position: 321,683 335,633 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position \$ 202,783 \$ 125,370 Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) 90,296 Operating income \$ 34,594 (33,765) Operating income \$ 2,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 5 2,207 Increase (decrease) in net position \$ 363,921 \$ 380,453 Ending net position \$ 363,921<	Total assets	\$	711,540 \$	724,979
Amounts payable to the university - Series 2013A Bonds 337,955 337,955 Total liabilities 347,619 344,526 Net position:	Liabilities and deferred inflows:			
Total liabilities 347,619 344,526 Net position: Net investment in capital assets 321,683 335,633 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses 340,452 \$ 2022 2021 Condensed Statement of Revenues, Expenses 340,453 \$ 125,370 And Changes in Net Position \$ 204,783 \$ 125,370 Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation \$ (117,919) \$ (90,296) Depreciation expenses \$ 34,594 \$ (33,726) Operating income \$ 52,270 \$ 1,348 Nonoperating revenues, net \$ (14,431) \$ (14,576) Net income (loss) before transfers \$ 37,839 \$ 13,228 Transfers from (to) other university units, net \$ (54,371) \$ 52,207 Increase (decrease) in net position \$ 363,921 \$ 389,79 Beginning net position \$ 363,921 <td>Current liabilities</td> <td>\$</td> <td>9,664 \$</td> <td>6,571</td>	Current liabilities	\$	9,664 \$	6,571
Net investment in capital assets 321,683 335,633 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$711,540 724,979 2022 2021 Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating \$204,783 \$125,370 Operating expenses, excluding depreciation (117,919) (90,296) Operating income \$34,594 (33,726) Operating income \$2,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (36,4371) 52,207 Beginning net position \$363,921 380,453 Condensed Statement of Cash Flows Net cash provided (used) by: \$363,921 380,453 Operating activities \$83,986	Amounts payable to the university - Series 2013A Bonds		337,955	337,955
Net investment in capital assets 321,683 335,633 Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) (90,296) Depreciation expense (34,594) (33,726) Operating income 52,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (16,532) 38,979 Beginning net position 380,453 341,474 Ending net position \$ 363,921 \$ 380,453 Condensed Statement of Cash Flows Net cash provided (used) by: \$ 83,986 \$ 34,804 Capital and r	Total liabilities		347,619	344,526
Unrestricted 42,238 44,820 Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 2022 2021 Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) (90,296) Depreciation expense (34,594) (33,726) Operating income 52,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (16,532) 38,979 Beginning net position 380,453 341,474 Ending net position \$ 363,921 380,453 Solution \$ 383,986 34,804 Condensed Statement of Cash Flows Net cash provided (used) by: \$ 83,986 \$ 34,804 <td< td=""><td>Net position:</td><td></td><td></td><td></td></td<>	Net position:			
Total net position 363,921 380,453 Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) (90,296) Depreciation expense (34,594) (33,726) Operating income \$52,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (16,532) 38,979 Beginning net position 380,453 341,474 Ending net position \$ 363,921 380,453 Solution Condensed Statement of Cash Flows Net cash provided (used) by: \$ 383,986 34,804 Operating activities \$ 83,986 34,804 Capital and related financing activities \$ 83,986	Net investment in capital assets		321,683	335,633
Total liabilities and net position \$ 711,540 \$ 724,979 Condensed Statement of Revenues, Expenses and Changes in Net Position \$ 2021 Special-purpose pledged revenues - operating Operating expenses, excluding depreciation \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation \$ (117,919) \$ (90,296) Depreciation expense \$ (34,594) \$ (33,726) Operating income \$ 52,270 1,348 Nonoperating revenues, net \$ (14,431) \$ (14,576) Net income (loss) before transfers \$ 37,839 \$ (13,228) Transfers from (to) other university units, net \$ (54,371) \$ 52,207 Increase (decrease) in net position \$ (16,532) \$ 38,979 Beginning net position \$ 363,921 \$ 380,453 Condensed Statement of Cash Flows \$ 363,921 \$ 380,453 Net cash provided (used) by: \$ 83,986 \$ 34,804 Capital and related financing activities \$ 83,986 \$ 34,804 Capital and related financing activities \$ 83,986 \$ 34,804 Capital and related financing activities \$ 83,986 \$ 25,039	Unrestricted		42,238	44,820
Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) (90,296) Operating income 334,594 (33,726) Operating income 52,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (16,532) 38,979 Beginning net position 380,453 341,474 Ending net position \$ 363,921 \$ 380,453 Condensed Statement of Cash Flows S 380,453 Net cash provided (used) by: S 38,986 \$ 34,804 Capital and related financing activities (84,249) (10,007) Investing activities 305 242 Net increase (decrease) in cash 42 25,039 Beginning cash and cash equivalents 50,818 25,779	Total net position		363,921	380,453
Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating Operating expenses, excluding depreciation (117,919) (90,296) \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation Operating expenses (34,594) (33,726) \$ (34,594) (33,726) Operating income Operating revenues, net (14,431) (14,576) \$ (14,431) (14,576) Net income (loss) before transfers (14,431) (14,576) \$ (14,431) (14,576) Net income (loss) before transfers (154,371) (152,207) \$ (15,322) (13,228) Transfers from (to) other university units, net (16,532) (16,532) (16,532) (16,532) (17,228) \$ (16,532) (17,228) Beginning net position (16,532) (16,532) (17,228) (17,228) \$ (16,532) (17,228) Beginning net position (16,532) (17,228) (17,228) (17,228) \$ (16,532) (17,228) (17,228) Condensed Statement of Cash Flows \$ (16,532) (17,228) (17,228) (17,228) Net cash provided (used) by: \$ (16,532) (17,228	Total liabilities and net position	\$	711,540 \$	724,979
Condensed Statement of Revenues, Expenses and Changes in Net Position Special-purpose pledged revenues - operating Operating expenses, excluding depreciation (117,919) (90,296) \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation Operating expenses (34,594) (33,726) \$ (34,594) (33,726) Operating income Operating revenues, net (14,431) (14,576) \$ (14,431) (14,576) Net income (loss) before transfers (14,431) (14,576) \$ (14,431) (14,576) Net income (loss) before transfers (154,371) (152,207) \$ (15,322) (13,228) Transfers from (to) other university units, net (16,532) (16,532) (16,532) (16,532) (17,228) \$ (16,532) (17,228) Beginning net position (16,532) (16,532) (17,228) (17,228) \$ (16,532) (17,228) Beginning net position (16,532) (17,228) (17,228) (17,228) \$ (16,532) (17,228) (17,228) Condensed Statement of Cash Flows \$ (16,532) (17,228) (17,228) (17,228) Net cash provided (used) by: \$ (16,532) (17,228			2022	2024
and Changes in Net Position Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) (90,296) Depreciation expense (34,594) (33,726) Operating income 52,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (16,532) 38,979 Beginning net position 380,453 341,474 Ending net position \$ 363,921 \$ 380,453 Condensed Statement of Cash Flows \$ 83,986 \$ 34,804 Capital and related financing activities \$ 83,986 \$ 34,804 Capital and related financing activities (84,249) (10,007) Investing activities 305 242 Net increase (decrease) in cash 42 25,039 Beginning cash and cash equivalents 50,818 25,779			2022	2021
Special-purpose pledged revenues - operating \$ 204,783 \$ 125,370 Operating expenses, excluding depreciation (117,919) (90,296) Depreciation expense (34,594) (33,726) Operating income 52,270 1,348 Nonoperating revenues, net (14,431) (14,576) Net income (loss) before transfers 37,839 (13,228) Transfers from (to) other university units, net (54,371) 52,207 Increase (decrease) in net position (16,532) 38,979 Beginning net position 380,453 341,474 Ending net position \$ 363,921 \$ 380,453 Condensed Statement of Cash Flows S 38,986 \$ 34,804 Capital and related financing activities \$ 83,986 \$ 34,804 Capital and related financing activities \$ 83,986 \$ 34,804 Net increase (decrease) in cash 42 25,039 Beginning cash and cash equivalents 50,818 25,779				
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Investing activities305242Net increase (decrease) in cash4225,039Beginning cash and cash equivalents50,81825,779	Operating activities	\$	83,986 \$	34,804
Net increase (decrease) in cash4225,039Beginning cash and cash equivalents50,81825,779	Capital and related financing activities		(84,249)	(10,007)
Beginning cash and cash equivalents 50,818 25,779	Investing activities		305	242
Beginning cash and cash equivalents 50,818 25,779	Net increase (decrease) in cash		42	25,039
	Beginning cash and cash equivalents		50,818	25,779
	Ending cash and cash equivalents	\$	50,860 \$	

The Ohio State University Required Supplementary Information on GASB 68 Pension Liabilities (Unaudited) Year Ended June 30, 2022

The schedule of the university's proportionate shares of STRS-Ohio and OPERS net pension liabilities are presented below:

(dollars in thousands)	2015	2016	2017	2018	2019	2020	2021	2022
STRS-Ohio:								
University's proportion of the net pension liability	4.4%	4.5%	4.5%	4.6%	4.6%	4.7%	4.9%	5.0%
University's proportionate share of the net pension liability	\$ 1,070,914 \$	1,238,470	\$ 1,510,814 \$	1,081,053 \$	1,019,690 \$	1,040,149 \$	1,175,835 \$	638,605
University's covered payroll	\$ 381,669 \$	388,309	\$ 392,797 \$	412,149 \$	434,106 \$	452,084 \$	476,374 \$	492,780
University's proportionate share of the net pension liability as a percentage of its covered payroll	281%	319%	385%	262%	235%	230%	247%	130%
Plan fiduciary net position as a percentage of the total pension liability	74.7%	72.1%	66.8%	75.3%	77.3%	77.4%	75.5%	87.8%
OPERS:								
University's proportion of the net pension liability	8.8%	9.0%	9.1%	9.4%	9.9%	10.2%	10.4%	10.4%
University's proportionate share of the net pension liability	\$ 1,059,519 \$	1,556,156	\$ 2,054,548 \$	1,466,955 \$	2,695,368 \$	1,984,881 \$	1,503,497 \$	859,188
University's covered payroll	\$ 1,188,828 \$	1,236,914	\$ 1,289,346 \$	1,381,054 \$	1,521,447 \$	1,574,490 \$	1,704,763 \$	1,669,918
University's proportionate share of the net pension liability as a percentage of its covered payroll	89%	126%	159%	106%	177%	126%	88%	51%
Plan fiduciary net position as a percentage of the total pension liability	86.5%	81.2%	77.4%	84.9%	74.9%	82.4%	87.2%	93.0%

The schedule of the university's contributions to STRS-Ohio and OPERS are presented below:

(dollars in thousands)	2015	2016	2017	2018	2019	2020	2021	2022
STRS-Ohio:								
Contractually required contribution	\$ 65,738	\$ 66,975	\$ 70,373	\$ 74,356	\$ 77,781	\$ 82,576	\$ 86,909	\$ 88,264
Contributions in relation to the contractually required	\$ 65,738	\$ 66,975	\$ 70,373	\$ 74,356	\$ 77,781	\$ 82,576	\$ 86,909	\$ 88,264
Contribution deficiency (excess)	\$ -							
University's covered payroll	\$ 388,309	\$ 392,797	\$ 412,149	\$ 434,106	\$ 452,084	\$ 476,374	\$ 498,344	\$ 494,613
Contributions as a percentage of covered payroll	16.9%	17.1%	17.1%	17.1%	17.2%	17.3%	17.4%	17.8%
OPERS:								
Contractually required contribution	\$ 170,979	\$ 178,293	\$ 188,762	\$ 201,072	\$ 220,062	\$ 231,977	\$ 240,142	\$ 247,351
Contributions in relation to the contractually required	\$ 170,979	\$ 178,293	\$ 188,762	\$ 201,072	\$ 220,062	\$ 231,977	\$ 240,142	\$ 247,351
Contribution deficiency (excess)	\$ -							
University's covered payroll	\$ 1,208,710	\$ 1,260,366	\$ 1,334,350	\$ 1,421,367	\$ 1,525,502	\$ 1,607,469	\$ 1,664,980	\$ 1,714,708
Contributions as a percentage of covered payroll	14.1%	14.1%	14.1%	14.1%	14.4%	14.4%	14.4%	14.4%

The Ohio State University Required Supplementary Information on GASB 75 Net OPEB Liabilities (Unaudited) Year Ended June 30, 2022

The schedule of the university's proportionate shares of STRS-Ohio and OPERS net OPEB liabilities (assets) are presented below:

(dollars in thousands)	2018	2019	2020	2021	2022
STRS-Ohio:					
University's proportion of the net OPEB liability (asset)	4.6%	4.6%	4.7%	4.9%	5.0%
University's proportionate share of the net OPEB liability (asset)	\$ 177,556	\$ (74,520)	\$ (77,901)	\$ (85,406)	\$ (105,307)
University's covered payroll	\$ 412,149	\$ 434,106	\$ 452,084	\$ 452,084	\$ 492,780
University's proportionate share of the net OPEB liability (asset) as a percentage of its covered payroll	43%	-17%	-17%	-19%	-21%
Plan fiduciary net position as a percentage of the total OPEB liability (asset)	47.1%	176.0%	174.7%	182.1%	174.7%
OPERS:					
University's proportion of the net OPEB liability (asset)	9.7%	10.1%	10.4%	10.7%	10.7%
University's proportionate share of the net OPEB liability (asset)	\$ 1,055,239	\$ 1,321,019	\$ 1,436,889	\$ (189,776)	\$ (335,820)
University's covered payroll	\$ 1,381,054	\$ 1,521,447	\$ 1,574,490	\$ 1,704,763	\$ 1,669,918
University's proportionate share of the net OPEB liability (asset) as a percentage of its covered payroll	76%	87%	91%	-11%	-20%
Plan fiduciary net position as a percentage of the total OPEB liability (asset)	54.1%	46.3%	47.8%	115.6%	128.2%

The Ohio State University Notes to Required Supplementary Information (Unaudited) Year Ended June 30, 2022

STRS-Ohio - Pensions:

Changes of benefit terms. Amounts reported in 2019 reflect a reduction in the COLA rate to 0%, effective July 1, 2017.

Changes of assumptions. Amounts reported in 2022 reflect an adjustment of the discount rate from 7.45% to 7.00%. Amounts reported in 2018 also reflect an adjustment of mortality assumptions based on the use of the RF-2014 Annuitant Mortality Table rather than the RP-2000 Combined Mortality Table. Amounts reported in 2017 reflect an adjustment of the discount rate from 7.75% to 7.45%.

OPERS – Pensions:

Changes of assumptions. Amounts reported in 2022 reflect an adjustment of the discount rate from 7.20% to 6.90%. Amounts reported in 2019 reflect an adjustment of the discount rate from 7.50% to 7.20%. Amounts reported in 2017 reflect an adjustment of the discount rate from 8.00% to 7.50%. Amounts reported in 2017 also reflect an updated healthy and disabled mortality assumptions, based on the RP-2014 mortality tables with generational improvement scale MP-2016. Rates of retirement, termination and disability were modified to better reflect anticipated future experience.

STRS-Ohio - OPEB:

Changes of benefit terms. Amounts reported in 2020 reflect postponement of the Medicare Part B monthly reimbursement elimination date to January 1, 2021. Amounts reported in 2019 reflect adoption of a new premium subsidy plan for 2019 and future years that is intended to extent the fund's solvency to 2047. Amounts reported in 2019 also reflect postponement of the Medicare Part B monthly reimbursement elimination date to January 1, 2020. Amounts reported in 2018 reflect discontinuation of Medicare Part B premium reimbursements for certain survivors and beneficiaries and all remaining Medicare Part B premium reimbursements, beginning January 2019.

Changes of assumptions. Amounts reported in 2022 reflect an adjustment of the discount rate from 7.45% to 7.00%. Amounts reported in 2019 reflect an adjustment of the discount rate from 4.13% to 7.45%. Amounts reported in 2018 reflect an adjustment of the discount rate from 3.26% to 4.13%. Amounts reported in 2018 also reflect an adjustment of mortality assumptions based on the use of the RF-2014 Annuitant Mortality Table rather than the RP-2000 Combined Mortality Table.

OPERS - OPEB:

Changes of benefit terms. Amounts reported in 2021 reflect several changes to the health care plan offered to Medicare and non-Medicare retirees in efforts to decrease costs and increase the solvency of the health care plan. These changes, which were approved by the OPERS Board on January 15, 2020, are effective January 1, 2022 and include changes to base allowances and eligibility for Medicare retirees, as well as replacing OPERS-sponsored medical plans for non-Medicare retirees with monthly allowances.

Changes of assumptions. Amounts reported in 2021 reflect an adjustment of the discount rate from 3.16% to 6.00%. Amounts reported in 2020 reflect an adjustment of the discount rate from

3.96% to 3.16%. Amounts reported in 2019 reflect an adjustment of the discount rate from 3.85% to 3.96%.

The Ohio State University Supplementary Information on the Long-Term Investment Pool Year Ended June 30, 2022

The following section of the financial report provides additional information on the university's Long-Term Investment Pool, including a summary of changes in market value, investment returns and related expenses. Additional details on university investments, including asset allocations, endowment distribution policies, investment by type and risk disclosures, are provided in Notes 1 and 3 to the Financial Statements.

In 2022, the market value of the university's Long-Term Investment Pool – which includes gifted endowments, long-term investments of university operating funds and other funds internally designated to function as endowments – decreased \$81 million, to \$6.96 billion at June 30, 2022. The Long-Term Investment Pool activity for 2022 is summarized below:

Long-Term Investment Pool Activity (in thousands)

	Gifted Endowments		Quasi-End		
	University	Foundation	Operating	Designated	Total
Balance at June 30, 2021	\$ 1,333,836	\$ 1,345,059	\$ 1,740,687	\$ 2,622,391	\$ 7,041,973
Net Principal Additions (Withdrawals)	9,103	86,910	112,518	155,760	364,291
Change in Fair Value	(45,217)	(49,680)	(63,413)	(95,474)	(253,784)
Income Earned	29,946	30,982	40,238	59,472	160,638
Distributions	(48,452)	(49,896)	(64,968)	(95,895)	(259,211)
Expenses	(18,020)	(18,643)	(24,213)	(32,249)	(93,125)
Balance at June 30, 2022	\$ 1,261,196	\$ 1,344,732	\$ 1,740,849	\$ 2,614,005	\$ 6,960,782

Net principal additions (withdrawals) for gifted endowments include new endowment gifts and reinvestment of unused endowment distributions. Change in fair value includes realized gains and losses for assets sold during the year and unrealized gains and losses for assets held in the pool at June 30, 2022. Income earned includes interest and dividends and is used primarily to fund distributions. Expenses include investment management expenses (\$71 million), University Development related expenses (\$21 million) and other investment related expenses (\$1 million).

Investment Returns and Expenses:

The investment return for the Long-Term Investment Pool was 0.98% for fiscal year 2022. The annualized investment returns for the three-year and five-year periods were 9.7% and 7.5%, respectively. These returns -- which are net of investment management expenses as defined by Cambridge Associates in its annual survey -- are used for comparison purposes with other endowments and various benchmarks. In addition to the \$71 million of investment management expenses, which reduced the pool by 1.0% in fiscal year 2021, the \$21 million of University

Development expenses and \$1 million of other investment related expenses further reduced the pool by 0.3%.

Additional Information:

For more information on how the Long-Term Investment Pool is invested, please visit the Office of Investments website at: investments.osu.edu.

Additional details on university and foundation endowments, including balances for individual funds, are available on the Office of the Controller's website at:

go.osu.edu/EndowAdmin (click on the "Endowment Descriptions and Balances" link).

Peace Corps	Ass Research and I	Sistance Listing Number	Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Total Peace Corps Direct Awards							
Department of Agricultura Department Department of Agricultura Department Depar	Peace Corps						
Department of Agriculture	08.	.RD	Peace Corps		140D0421P0128	\$ 36,885	\$ -
10.001 USDA Apriouthural Research Service 58-5080-1002 19.355 -			Total Peace Corps Direct Awards			36,885	-
10.001 USDA Apriouthural Research Service 58-5080-1002 19.355 -	Department of	f Agriculture					
10.001 USDA Agrioultural Research Service \$8.5080-004 5.124	•	-	USDA Agricultural Research Service		58-0206-0-180	226,606	-
10.001 USDA Agricultural Research Service \$5.5082-0.006 \$4.906 \$1.0001 USDA Agricultural Research Service \$5.5082-0.101 \$16.058 \$1.0001 USDA Agricultural Research Service \$5.5082-1.001 \$16.058 \$1.0001 USDA Agricultural Research Service \$5.5082-1.007 \$2.705 \$1.0001 USDA Agricultural Research Service \$5.5082-1.007 \$2.705 \$2.002 \$2.0001 USDA Agricultural Research Service \$5.5082-1.007 \$2.705 \$2.002 \$2.0001 USDA Agricultural Research Service \$5.5082-8.006 \$19.535 \$2.0001 USDA Agricultural Research Service \$5.5082-8.000 \$1.0001 USDA Agricultural Research Service \$5.5082-8.001 \$1.0001 USDA Agricultural Research Service \$5.5082-9.015 \$2.066 \$1.0001 USDA Agricultural Research Service \$5.5082-9.015 \$2.066 \$1.0001 USDA Agricultural Research Service \$5.5082-9.015 \$2.066 \$1.0001 USDA Agricultural Research Service \$5.5082-9.016 \$2.0000 \$1.814 \$1.0001 USDA Agricultural Research Service \$5.5082-9.000 \$2.814 \$1.0001 USDA Agricultural Research Service \$5.5082-9.000 \$2.814 \$1.0001 USDA Agricultural Research Service \$5.5082-9.000 \$3.382 \$1.0001 USDA Agricultural Research Service \$5.5082-9.000 \$3.382 \$1.0001 USDA Agricultural Research Service \$5.5082-9.001 \$0.0001 USDA Agricul	10.	.001			58-5080-1-002	19,355	-
10.001 USDA Agricultural Research Service \$5.5082-0.006 \$4,906 1.001 USDA Agricultural Research Service \$5.5082-0.001 16,058 1.001 USDA Agricultural Research Service \$5.5082-1.001 16,058 1.001 USDA Agricultural Research Service \$5.5082-1.005 1.009 1.001 USDA Agricultural Research Service \$5.5082-1.007 24,795 1.001 USDA Agricultural Research Service \$5.5082-1.007 24,795 1.001 USDA Agricultural Research Service \$5.5082-1.007 24,795 1.001 USDA Agricultural Research Service \$5.5082-8.006 19,535 1.001 USDA Agricultural Research Service \$5.5082-8.006 19,535 1.001 USDA Agricultural Research Service \$5.5082-8.006 19,535 1.001 USDA Agricultural Research Service \$5.5082-8.006 19,536 1.001 USDA Agricultural Research Service \$5.5082-8.006 19,536 1.001 USDA Agricultural Research Service \$5.5082-8.007 1.001 USDA Agricultural Research Service \$5.5082-8.002 1.001 USDA Agricultural Research Service \$5.5082-8.003 1.0031 1.001 USDA Agricultural Research Service \$5.5082-9.013 1.0031 1.001 USDA Agricultural Research Service \$5.5082-9.013 1.0031 1.001 USDA Agricultural Research Service \$5.5082-9.013 1.0031 1.001 USDA Agricultural Research Service \$5.5082-9.015 2.006 1.001 USDA Agricultural Research Service \$5.5082-9.015 2.006 1.001 USDA Agricultural Research Service \$5.5082-9.010 2.1814 1.001 USDA Agricultural Research Service \$5.5082-9.001 3.15,804 1.001 USDA Agricultural Research Service \$5.5082-9.001 3.782 1.001 USDA Agricultural Research Service \$5.5082-9.001 5.5082-9.001 5.5082-9.001 1.001 USDA Agri	10.	.001	USDA Agricultural Research Service		58-5080-9-004	5,124	-
10.001	10.	.001			58-5082-0-006	64,906	-
10.001 USDA Agricultural Research Service 58-5082-1-005 1.699 - 1.0001 USDA Agricultural Research Service 58-5082-1-007 24,795 - 1.0001 USDA Agricultural Research Service 58-5082-7-014 52.082 - 1.0001 USDA Agricultural Research Service 58-5082-6-010 270,724 - 1.0001 USDA Agricultural Research Service 58-5082-6-020 91,686 - 1.0001 USDA Agricultural Research Service 58-5082-6-020 91,686 - 1.0001 USDA Agricultural Research Service 58-5082-6-021 10,001 USDA Agricultural Research Service 58-5082-0-013 11,031 - 1.0001 USDA Agricultural Research Service 58-5082-0-013 11,031 - 1.0001 USDA Agricultural Research Service 58-5082-0-013 10,531 - 1.0001 USDA Agricultural Research Service 58-5082-0-013 10,530 - 1.0001 USDA Agricultural Research Service 58-5082-0-013 10,530 - 1.0001 USDA Agricultural Research Service 59-0006-0-131 10,5470 - 1.0001 USDA Agricultural Research Service 59-0006-0-174 59,979 - 1.0001	10.	.001	USDA Agricultural Research Service		58-5082-0-013	32,886	-
10.001 USDA Agricultural Research Service 56-5082-1-005 1.699 -	10.	.001	USDA Agricultural Research Service		58-5082-1-001	16,058	-
10.001 USDA Agricultural Research Service 58-6882-7-014 52.082	10.	.001			58-5082-1-005	1,699	-
10.001 USDA Agricultural Research Service 88-5082-8-006 19,535 - 1	10.	.001	USDA Agricultural Research Service		58-5082-1-007	24,795	-
10.001 USDA Agricultural Research Service \$5.5082.8-010 270.724 - 1.001 USDA Agricultural Research Service \$5.5082.8-013 121.392 - 1.001 USDA Agricultural Research Service \$5.5082.8-020 91.666 - 1.001 USDA Agricultural Research Service \$5.5082.8-020 91.666 - 1.001 USDA Agricultural Research Service \$5.5082.8-013 110.931 - 1.001 USDA Agricultural Research Service \$5.5082.9-015 2.066 - 1.001 USDA Agricultural Research Service \$5.5082.9-015 2.066 - 1.001 USDA Agricultural Research Service \$5.0026.0-131 105.470 - 1.001 USDA Agricultural Research Service \$5.0026.0-131 105.470 - 1.001 USDA Agricultural Research Service \$5.0026.0-134 315.804 - 1.001 USDA Agricultural Research Service \$5.0026.0-149 315.804 - 1.001 USDA Agricultural Research Service \$5.0026.0-149 315.804 - 1.001 USDA Agricultural Research Service \$5.0026.0-149 315.804 - 1.001 USDA Agricultural Research Service \$5.0026.8-208 292 - 1.001 USDA Agricultural Research Service \$5.5082.9-009 21.814 - 1.001 USDA Agricultural Research Service \$5.5082.9-009 38.382 - 1.001 USDA Agricultural Research Service \$5.5082.0-011 60.074 - 1.001 USDA Agricultural Research Service \$5.5082.0-010 32.260 - 1.001 USDA Agricultur	10.	.001	USDA Agricultural Research Service		58-5082-7-014	52,082	-
10.001	10.	.001	USDA Agricultural Research Service		58-5082-8-006	19,535	-
10.001	10.	.001	USDA Agricultural Research Service		58-5082-8-010	270,724	-
10.001 USDA Agricultural Research Service 58-5082-8-024 80.290 -	10.	.001	USDA Agricultural Research Service		58-5082-8-018	121,392	-
10.001 USDA Agricultural Research Service 58-5082-9-015 2,066 - 1	10.	.001	USDA Agricultural Research Service		58-5082-8-020	91,666	-
10,001 USDA Agricultural Research Service	10.	.001	USDA Agricultural Research Service		58-5082-8-024	80,290	-
10.001 USDA Agricultural Research Service 59-0206-0-131 105,470 - 1	10.	.001	USDA Agricultural Research Service		58-5082-9-013	110,931	-
10.001 USDA Agricultural Research Service 59-0206-0-149 315,804 - 10.001 USDA Agricultural Research Service 59-0206-0-174 59,979 - 10.001 USDA Agricultural Research Service 59-0206-8-208 292 - 10.001 USDA Agricultural Research Service 58-5082-9-009 21,814 - 10.001 USDA Agricultural Research Service 58-5082-0-011 60,074 - 10.001 USDA Agricultural Research Service 58-5082-0-009 33,382 - 10.001 USDA Agricultural Research Service 58-5082-0-009 33,382 - 10.001 USDA Agricultural Research Service 58-5082-0-009 33,382 - 10.001 USDA Agricultural Research Service 58-5082-0-000 32,260 - 10.001 USDA Agricultural Research Service 58-5082-1-003 1,070 - 10.001 USDA Agricultural Research Service 58-5082-1-010 19,662 - 10.001 USDA Agricultural Research Service 58-5082-1-015 21,733 - 10.001 USDA Agricultural Research Service 58-5082-1-015 21,733 <td>10.</td> <td>.001</td> <td>USDA Agricultural Research Service</td> <td></td> <td>58-5082-9-015</td> <td>2,066</td> <td>-</td>	10.	.001	USDA Agricultural Research Service		58-5082-9-015	2,066	-
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Assistance List	-	Dana Thurwigh Consumer	Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Developmer	nt Cluster —				
Funds received directly from					
,	3 3				
10.025	Animal and Plant Health Inspection Service		AP21VSSP0000C033	32,932	-
10.025	Animal and Plant Health Inspection Service		AP21VSD&B000C127	71,178	-
10.025	Animal and Plant Health Inspection Service		AP22VSSP0000C030	6,414	-
10.167	USDA Agricultural Research Service		21-TMTSD-OH-0014	23,831	-
10.174	Agricultural Marketing Service		AM190100XXXXG074	94,432	59,179
10.174	Agricultural Marketing Service		AM200100XXXXG009	41,023	-
10.200	National Institute of Food and Agriculture		20197000730369	7,680	5,376
10.200	National Institute of Food and Agriculture		20217000734785	41,398	-
10.202	Cooperative Forestry Research			473,856	-
10.203	Pmts to Agricult Exp Station			9,131,067	-
10.207	Animal Health & Disease Research			54,825	-
10.207	National Institute of Food and Agriculture		NI19AHDRXXXXG002	106	-
10.207	National Institute of Food and Agriculture		NI20AHDRXXXXG042	15,745	-
10.207	National Institute of Food and Agriculture		NI21AHDRXXXXG012	22,915	-
10.210	National Institute of Food and Agriculture		20193842028968	42,970	-
10.210	National Institute of Food and Agriculture		20203842030723	6,050	-
10.210	National Institute of Food and Agriculture		20203842030725	65,159	-
10.210	National Institute of Food and Agriculture		20213842034068	15,815	-
10.217	National Institute of Food and Agriculture		20167000324835	17,380	16,840
10.250	Economic Research Service		58-6000-0-0046	3,954	-
10.250	Economic Research Service		58-3000-1-0068	67,997	-
10.250	Economic Research Service		58-3000-1-0095	24,561	-
10.250	Economic Research Service		58-3000-1-0112	18,900	-
10.250	Economic Research Service		58-3000-1-0067	26,084	-
10.303	National Institute of Food and Agriculture		20165110625714	6,502	-
10.307	National Institute of Food and Agriculture		20195130030255	331,502	182,453
10.310	National Institute of Food and Agriculture		20156800423131	645,359	253,793
10.310	National Institute of Food and Agriculture		20156800632555	128,091	47,894
10.310	National Institute of Food and Agriculture		20166701324727	37,757	-
10.310	National Institute of Food and Agriculture		20166701925146	89,710	-
10.310	National Institute of Food and Agriculture		20166702124434	40,282	-
10.310	National Institute of Food and Agriculture		20176700926770	215,992	48,015
10.310	National Institute of Food and Agriculture		20176701326595	32,868	23,009
10.310	National Institute of Food and Agriculture		20176701526540	39,399	-
10.310	National Institute of Food and Agriculture		20176701726469	210	-
10.310	National Institute of Food and Agriculture		20176702126141	1,900	-
10.310	National Institute of Food and Agriculture		20176800126353	131,312	29,886
10.310	National Institute of Food and Agriculture		20186700128246	168,238	-
10.310	National Institute of Food and Agriculture		20186701228011	(885)	-
10.310	National Institute of Food and Agriculture		20186701327555	100,331	25,367
10.310	National Institute of Food and Agriculture		20186701328490	14,794	8,988
10.310	National Institute of Food and Agriculture		20186701727519	48,003	5,974
10.310	National Institute of Food and Agriculture		20186701727557	79,243	-
10.310	National Institute of Food and Agriculture		20186701727914	171,007	20,613
10.310	National Institute of Food and Agriculture		20186701927803	102,238	6,948
10.310	National Institute of Food and Agriculture		20186702327643	87,280	-

A!-4 !			Additional Assessed	Fodovel	Form and distance
Assistance List Number	ting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Number	rederal Agency Sponsor	Pass-Hilough Sponsor	identification	Expenditures	to Subrecipients
Research and Developmer	nt Cluster —				
Funds received directly fro					
,	3 3				
10.310	National Institute of Food and Agriculture		20186800227932	375,578	-
10.310	National Institute of Food and Agriculture		20186800828356	64,407	60,979
10.310	National Institute of Food and Agriculture		20186801128370	772,964	19,599
10.310	National Institute of Food and Agriculture		20196701129558	177	-
10.310	National Institute of Food and Agriculture		20196701229652	18,697	-
10.310	National Institute of Food and Agriculture		20196701329297	111,186	-
10.310	National Institute of Food and Agriculture		20196701529574	111,906	49,864
10.310	National Institute of Food and Agriculture		20196701529815	89,859	-
10.310	National Institute of Food and Agriculture		20196701529843	88,891	-
10.310	National Institute of Food and Agriculture		20196701729259	89,415	-
10.310	National Institute of Food and Agriculture		20196701929310	208,845	32,900
10.310	National Institute of Food and Agriculture		20196702129944	97,791	-
10.310	National Institute of Food and Agriculture		20196703029003	28,401	-
10.310	National Institute of Food and Agriculture		20196800629681	151,838	65,583
10.310	National Institute of Food and Agriculture		20196801529229	98,238	-
10.310	National Institute of Food and Agriculture		20206701330876	153,053	-
10.310	National Institute of Food and Agriculture		20206701531401	79,083	-
10.310	National Institute of Food and Agriculture		20206701531537	36,825	-
10.310	National Institute of Food and Agriculture		20206701531618	146,561	-
10.310	National Institute of Food and Agriculture		20206701531677	153,049	-
10.310	National Institute of Food and Agriculture		20206701730794	59,910	-
10.310	National Institute of Food and Agriculture		20206701731798	231,764	-
10.310	National Institute of Food and Agriculture		20206701931161	112,086	66,329
10.310	National Institute of Food and Agriculture		20206703031338	86,324	-
10.310	National Institute of Food and Agriculture		20206703431885	33,621	-
10.310	National Institute of Food and Agriculture		20206801530856	205,641	-
10.310	National Institute of Food and Agriculture		20216701333615	52,941	-
10.310	National Institute of Food and Agriculture		20216701533838	46,499	-
10.310	National Institute of Food and Agriculture		20216701733443	79,004	-
10.310	National Institute of Food and Agriculture		20216701933425	157,250	17,124
10.310	National Institute of Food and Agriculture		20216702333820	174,207	112,291
10.310	National Institute of Food and Agriculture		20216703434974	61,891	-
10.310	National Institute of Food and Agriculture		20216800634177	63,149	-
10.310	National Institute of Food and Agriculture		20186800327466	237,889	115,611
10.310	National Institute of Food and Agriculture		20206701330874	99,626	10,836
10.310	National Institute of Food and Agriculture		20206702131142	138,634	-
10.310	National Institute of Food and Agriculture		20216701333575	71,804	-
10.310	National Institute of Food and Agriculture		20216701533393	16,917	-
10.310	National Institute of Food and Agriculture		20216801434142	112,681	-
10.310	National Institute of Food and Agriculture		20216702134147	74,672	-
10.310	National Institute of Food and Agriculture		20216701534465	4,618	-
10.310	National Institute of Food and Agriculture		20216703435123	71,759	-
10.310	National Institute of Food and Agriculture		20216703435008	67,666	-
10.310	National Institute of Food and Agriculture		20216703434977	22,009	-
10.310	National Institute of Food and Agriculture		20226701536348	3,192	-
10.310	National Institute of Food and Agriculture		20226701936437	76,563	-

Assistance Listir Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Development	Cluster —				
Funds received directly from	n the following agencies				
10.310	National Institute of Food and Agriculture		20226701736290	113,084	-
10.310	National Institute of Food and Agriculture		20226701936490	6,466	1,848
10.310	National Institute of Food and Agriculture		20226701536482	4,214	-
10.310	National Institute of Food and Agriculture		20226701336489	30,614	-
10.310	National Institute of Food and Agriculture		20226701936697	5,821	-
10.310	National Institute of Food and Agriculture		20226801536718	11,748	-
10.310	National Institute of Food and Agriculture		20226701736559	9,121	-
10.310	National Institute of Food and Agriculture		20226801536628	18,191	-
10.310	National Institute of Food and Agriculture		20226701737187	4,306	-
10.310	National Institute of Food and Agriculture		20226701337080	2,211	-
10.312	National Institute of Food and Agriculture		20181000828571	393,855	169,012
10.318	National Institute of Food and Agriculture		20213850334818	34,132	-
10.328	National Institute of Food and Agriculture		20177002027260	4,913	-
10.329	National Institute of Food and Agriculture		20197000630447	80,878	5,157
10.329	National Institute of Food and Agriculture		20217000635319	24,475	521
10.336	National Institute of Food and Agriculture		20217002435466	46,020	-
10.500	National Institute of Food and Agriculture		20164871125897	687,020	-
10.500	National Institute of Food and Agriculture		20184152028897	127,707	45,709
10.500	National Institute of Food and Agriculture		20204871132407	1,441,198	-
10.500	National Institute of Food and Agriculture		20214152035339	66,122	25,533
10.500	National Institute of Food and Agriculture		20214152135103	43,010	-
10.664	USDA Forest Service		17-CA-11132546-023	45,438	-
10.675	USDA Forest Service		19-DG-11132544-028	57,437	31,660
10.684	USDA Forest Service		19-DG-11132762-222	173,359	66,448
10.699	USDA Forest Service		17-CR-11242316-059	53,565	-
10.707	USDA Forest Service		19-JV-11242306-045	50,839	-
10.707	USDA Forest Service		21-JV-11242316-041	14,209	-
10.771	USDA Rural Development		41066213647780	126,059	-
10.903	Natural Resources Conservation Service		NR203A750025C011	114,731	-
10.912	Natural Resources Conservation Service		NR213A750013G036	70,148	-
10.RD	USDA Agricultural Research Service		12905B20P0181	53	-
	Total Department of Agriculture Direct Awards			23,950,870	1,631,339
Department of Commerce					
11.417	National Oceanic & Atmospheric Administration		NA18OAR4170100	1,297,495	412,300
11.417	National Oceanic & Atmospheric Administration		NA20OAR4170463	10,404	- -
11.417	National Oceanic & Atmospheric Administration		NA22OAR4170099	587	-
11.420	National Oceanic & Atmospheric Administration		NA20NOS4200150	46,758	-
11.478	National Oceanic & Atmospheric Administration		NA17NOS4780186	100,186	88,158
11.999	National Oceanic & Atmospheric Administration		NA18NOS9990032	14,780	-
	Total Department of Commerce Direct Awards			1,470,210	500,458
Department of Defense 12.300	Office of Naval Research		N00014-17-1-2034	29,990	-

Assistance Li	-		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Developm	ent Cluster				
	rom the following agencies				
T dild3 Toocived directly in	on the following agencies				
12.300	Office of Naval Research		N00014-17-1-2417	52,607	16,088
12.300	Office of Naval Research		N00014-17-1-2440	463,755	236,166
12.300	Office of Naval Research		N00014-17-1-2928	133,801	-
12.300	Office of Naval Research		N00014-18-1-2034	17,212	17,212
12.300	Office of Naval Research		N00014-18-1-2361	(13,240)	- -
12.300	Office of Naval Research		N00014-18-1-2577	25,238	-
12.300	Office of Naval Research		N00014-18-1-2581	89,872	-
12.300	Office of Naval Research		N00014-18-1-2589	144,782	-
12.300	Office of Naval Research		N00014-19-1-2207	145,625	-
12.300	Office of Naval Research		N00014-20-1-2100	237,267	-
12.300	Office of Naval Research		N00014-20-1-2141	185,594	-
12.300	Office of Naval Research		N00014-20-1-2163	1,277,989	710,999
12.300	Office of Naval Research		N00014-20-1-2194	34,599	=
12.300	Office of Naval Research		N00014-20-1-2364	120,000	-
12.300	Office of Naval Research		N00014-20-1-2663	134,664	-
12.300	Office of Naval Research		N00014-20-1-2810	146,022	-
12.300	Office of Naval Research		N00014-21-1-2108	161,839	-
12.300	Office of Naval Research		N00014-21-1-2408	107,552	33,000
12.300	Office of Naval Research		N00014-21-1-2461	72,739	-
12.300	Office of Naval Research		N00014-21-1-2668	69,548	-
12.300	Office of Naval Research		N00014-21-1-2650	205,138	19,546
12.300	Office of Naval Research		N00014-21-1-2943	183,216	-
12.300	Office of Naval Research		N00014-22-1-2212	102,471	-
12.300	Office of Naval Research		N00014-22-1-2260	49,282	-
12.300	Office of Naval Research		N00014-22-1-2170	75,829	-
12.300	Office of Naval Research		N00014-22-1-2238	23,873	-
12.300	Office of Naval Research		N00014-22-1-2227	40,697	-
12.300	Office of Naval Research		N00014-22-1-2424	7,957	-
12.351	Defense Threat Reduction Agency		HDTRA11810050	31,961	-
12.351	Defense Threat Reduction Agency		HDTRA11910024	468,186	247,399
12.420	Army Medical Research Acquisition Activity		W81XWH-16-1-0036	23,222	-
12.420	Army Medical Research Acquisition Activity		W81XWH-16-1-0037	(3,249)	-
12.420	Army Medical Research Acquisition Activity		W81XWH-16-1-0291	(32,889)	-
12.420	Army Medical Research Acquisition Activity		W81XWH-16-1-0293	18,988	-
12.420	Army Medical Research Acquisition Activity		W81XWH-16-1-0560	(8)	-
12.420	Army Medical Research Acquisition Activity		W81XWH-16-2-0062	313,461	57,170
12.420	Army Medical Research Acquisition Activity		W81XWH-17-1-0519	190,552	
12.420	Army Medical Research Acquisition Activity		W81XWH1810059	836,968	545,788
12.420	Army Medical Research Acquisition Activity		W81XWH1810787	135,244	117,731
12.420	Army Medical Research Acquisition Activity		W81XWH1810805	433,889	4,368
12.420	Army Medical Research Acquisition Activity		W81XWH1910088	398,365	-
12.420	Army Medical Research Acquisition Activity		W81XWH1910210	25,736	-
12.420	Army Medical Research Acquisition Activity		W81XWH1910233	63,735	-
12.420	Army Medical Research Acquisition Activity		W81XWH1910309	110,891	-
12.420	Army Medical Research Acquisition Activity		W81XWH1910732	115,733	-
12.420	Army Medical Research Acquisition Activity		W81XWH1920003	366,759	6,049

Assistance I Numbe	-	Page Through Sponger	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Numbe	er Federal Agency Sponsor	Pass-Through Sponsor	identification	Expenditures	to Subrecipients
Research and Developn	ment Cluster —				
	from the following agencies				
12.420	Army Medical Research Acquisition Activity		W81XWH1920065	436,002	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010046	210	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010047	449,589	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010361	244,523	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010373	262,738	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010618	15,251	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010788	64,666	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010828	377,805	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010878	182,036	-
12.420	Army Medical Research Acquisition Activity		W81XWH2010933	178,933	110,276
12.420	Army Medical Research Acquisition Activity		W81XWH2110021	390,771	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110287	149,034	-
12.420	Army Medical Research Acquisition Activity		W81XWH1510074	19,223	8,990
12.420	Army Medical Research Acquisition Activity		W81XWH2110427	251,641	12,459
12.420	Army Medical Research Acquisition Activity		W81XWH2110319	146,362	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110636	149,457	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110675	183,798	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110318	44,786	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110874	240,837	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110946	197,865	-
12.420	Army Medical Research Acquisition Activity		W81XWH2110554	205,367	-
12.420	Army Medical Research Acquisition Activity		W81XWH2210019	23,489	-
12.420	Defense Health Agency		W81XWH2010868	194,186	15,422
12.431	Army Research Office		W911NF1910359	110,518	52,727
12.431	COVID Army Research Office		W911NF1920032	200,538	111,830
12.431	COVID Army Research Office		W911NF1920256	7,731	-
12.431	Army Research Office		W911NF2010152	121,082	49,742
12.431	Army Research Office		W911NF2020063	188,923	-
12.431	Army Research Office		W911NF2020238	86,713	-
12.431	Army Research Office		W911NF2120089	88,969	-
12.431	Army Research Office		W911NF1710140	151	-
12.431	Army Research Office		W911NF1810086	5,529	-
12.431	Army Research Office		W911NF2110356	127,852	-
12.431	United States Army		W911NF2110081	35,440	-
12.431	United States Army		W911NF2110244	126,294	41,668
12.617	Department of Defense Office of Economic Adjustment		HQ00052010025	455,791	-
12.630	Army Corps of Engineers		W912HZ2120012	128,341	-
12.630	Army Corps of Engineers		W912HZ2120013	480,280	21,850
12.630	National Geospatial-Intelligence Agency		HM04761912013	77,959	-
12.630	National Geospatial-Intelligence Agency		HM04762110004	170,925	-
12.630	National Geospatial-Intelligence Agency		HM04762210005	6,171	-
12.740	Defense POW/MIA Accounting Agency		HQ0761-19-2-0001	572,328	462,280
12.800	Air Force Academy		FA7000-18-2-0001	187,148	65,677
12.800	Air Force Academy		FA7000-19-2-0005	188,055	10,215
12.800	Air Force Academy		FA7000-19-2-0021	113,201	-
12.800	Air Force Office of Scientific Research		FA9550-16-1-0013	56,436	5,386

Part Part	Assistance Lis Number	ting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Funds received directly from the following agencies	Research and Developme	nt Cluster —				
12.800						
12.800						
12.800	12.800	Air Force Office of Scientific Research		FA9550-16-1-0053	(592)	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-16-1-0212	41,582	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-17-1-0106	16,287	16,287
12,800	12.800	Air Force Office of Scientific Research		FA9550-17-1-0168	(26,230)	-
12,800	12.800	Air Force Office of Scientific Research		FA9550-17-1-0227	77,413	-
12,800	12.800	Air Force Office of Scientific Research		FA9550-17-1-0228	(14,841)	-
12800	12.800	Air Force Office of Scientific Research		FA9550-17-1-0350	(190)	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-17-1-0370	(12,306)	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-18-1-0066	(2,152)	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-18-1-0102	65,184	-
12,800	12.800	Air Force Office of Scientific Research		FA9550-18-1-0107	15,761	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-18-1-0123	90,789	-
12 800	12.800	Air Force Office of Scientific Research		FA9550-18-1-0335	33,785	-
12,800	12.800	Air Force Office of Scientific Research		FA9550-18-1-0378	1,076	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-19-1-0184	116,064	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-19-1-0378	268,830	130,285
12.800	12.800	Air Force Office of Scientific Research		FA9550-20-1-0015	237,530	-
12.800 Air Force Office of Scientific Research FA9550-20-1-0278 310,222 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0245 42,507 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0248 195,623 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0288 195,623 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0278 152,280 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0278 152,280 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0278 152,280 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0013 315,280 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Research Laboratory FA8550-21-0074 20,962 - 12.800 Air Force Research Laboratory FA8650-18-	12.800	Air Force Office of Scientific Research		FA9550-20-1-0083	135,149	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-20-1-0231	33,068	-
12.800	12.800	Air Force Office of Scientific Research		FA9550-20-1-0278	310,222	-
12.800 Air Force Office of Scientific Research FA9550-21-1-0268 195,623 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0278 152,280 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0278 152,280 - 12.800 Air Force Office of Scientific Research FA9550-21-10014 31,595 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Research Laboratory FA8550-17-5277 47,652 - 12.800 Air Force Research Laboratory FA8650-18-25279 270,040 - 12.800 Air Force Research Laboratory FA8650-18-25295 764,544 - 12.800 Air Force Research Laboratory FA8650-19-122224 668,118 324,483 12.800 Air Force Research Lab	12.800	Air Force Office of Scientific Research		FA9550-21-1-0176	158,919	-
12.800 Air Force Office of Scientific Research FA9550-21-1-0278 12.800 - 12.800 Air Force Office of Scientific Research FA9550-21-1-0415 60,683 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0011 31,595 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0074 20,962 - 12.800 Air Force Research Laboratory FA9550-22-1-0074 20,962 - 12.800 Air Force Research Laboratory FA8650-17-1-5277 47,652 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 270,040 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 70,040 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 70,040 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 70,040 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 55,055 - 12.800 Air Force Research Laboratory FA8650-18-2-2	12.800	Air Force Office of Scientific Research		FA9550-21-1-0245	42,507	-
12.800 Air Force Office of Scientific Research FA9550-21-1-0278 152,280 - 12.800 Air Force Office of Scientific Research FA9550-221-10415 80,683 - 12.800 Air Force Office of Scientific Research FA9550-221-10013 13,595 - 12.800 Air Force Office of Scientific Research FA9550-221-10063 16,231 - 12.800 Air Force Office of Scientific Research FA9550-221-10074 20,962 - 12.800 Air Force Office of Scientific Research FA9550-221-10074 20,962 - 12.800 Air Force Research Laboratory FA8650-17-15277 47,652 - 12.800 Air Force Research Laboratory FA8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory FA8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA8650-19-2-2200 216,976 103,914 12.800 Air Force Research Laborat	12.800	Air Force Office of Scientific Research		FA9550-21-1-0268	195,623	-
12.800 Air Force Office of Scientific Research FA9550-21-1-0415 60,683 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0011 31,595 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0074 20,962 - 12.800 Air Force Research Laboratory FA9550-22-1-0074 20,962 - 12.800 Air Force Research Laboratory FA8650-17-1-5277 47,652 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 270,404 - 12.800 Air Force Research Laboratory FA8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory FA8650-19-1-5227 52,505 - 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA9650-12-2-2007 216,976 103,914 12.800 Air Force Research Laboratory FA9650-12-2-10187 35,356 - 12.910 Defense Advanced Research Projects Agency <t< td=""><td>12.800</td><td>Air Force Office of Scientific Research</td><td></td><td>FA9550-21-1-0290</td><td>126,120</td><td>-</td></t<>	12.800	Air Force Office of Scientific Research		FA9550-21-1-0290	126,120	-
12.800 Air Force Office of Scientific Research FA9550-22-1-0011 31,595 - 12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research 20,962 - 12.800 Air Force Research Laboratory FA8650-12-15277 47,652 - 12.800 Air Force Research Laboratory FA8650-18-25279 270,040 - 12.800 Air Force Research Laboratory FA8650-18-25295 764,544 - 12.800 Air Force Research Laboratory FA8650-19-1-5227 52,505 - 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA8650-20-2-8853 585,931 222,494 12.800 Air Force Research Laboratory FA8650-19-2-21013 10,537 - 12.800 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D18A P00010 <td< td=""><td>12.800</td><td>Air Force Office of Scientific Research</td><td></td><td>FA9550-21-1-0278</td><td>152,280</td><td>-</td></td<>	12.800	Air Force Office of Scientific Research		FA9550-21-1-0278	152,280	-
12.800 Air Force Office of Scientific Research FA9550-22-1-0063 16,231 - 12.800 Air Force Office of Scientific Research 20,962 - 12.800 Air Force Research Laboratory 47,652 - 12.800 Air Force Research Laboratory 47,652 - 12.800 Air Force Research Laboratory 54,8650-18-2-5279 270,040 - 12.800 Air Force Research Laboratory 54,8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory 54,8650-19-1-5227 52,505 - 12.800 Air Force Research Laboratory 54,8650-19-1-5227 52,505 - 12.800 Air Force Research Laboratory 54,8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory 54,8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory 54,8650-19-2-2007 216,976 103,914 12.800 Air Force Research Laboratory 54,8550-22-1-0103 10,537 - 12.910 Air Force Research Laboratory 54,8650-19-1-1741 760,975 256,069 12.910	12.800	Air Force Office of Scientific Research		FA9550-21-1-0415	60,683	-
12.800 Air Force Office of Scientific Research FA9550-22-1-0074 20,962 - 12.800 Air Force Research Laboratory FA8650-17-1-5277 47,652 - 12.800 Air Force Research Laboratory FA8650-18-2-5279 270,040 - 12.800 Air Force Research Laboratory FA8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory FA8650-19-1-5227 52,505 - 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory FA8651-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA9550-22-1-0103 10,537 - 12.800 Air Force Research Laboratory FA8650-19-1-1741 760,975 25,066 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency <t< td=""><td>12.800</td><td>Air Force Office of Scientific Research</td><td></td><td>FA9550-22-1-0011</td><td>31,595</td><td>-</td></t<>	12.800	Air Force Office of Scientific Research		FA9550-22-1-0011	31,595	-
12.800 Air Force Research Laboratory 47,652 - 12.800 Air Force Research Laboratory 270,040 - 12.800 Air Force Research Laboratory 270,040 - 12.800 Air Force Research Laboratory 52,505 - 12.800 Air Force Research Laboratory 52,505 - 12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory 585,931 222,949 12.800 Air Force Research Laboratory 216,976 133,914 12.800 Air Force Research Laboratory 216,976 103,914 12.800 Air Force Research Laboratory 216,976 103,914 12.800 Air Force Research Laboratory 47,9550-22-1-0103 10,537 - 12.800 Air Force Research Laboratory 54,9550-22-1-0103 10,537 - 12.910 Air Force Research Laboratory 54,6650-31-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency 516,069 104,000 110,000 13,30,241 - 12.910 Defense Advanced	12.800	Air Force Office of Scientific Research		FA9550-22-1-0063	16,231	-
12.800 Air Force Research Laboratory FA8650-18-2-5279 270,040 - 12.800 Air Force Research Laboratory FA8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory 52,505 - 12.800 Air Force Research Laboratory 52,505 - 12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory 585,931 222,949 12.800 Air Force Research Laboratory 78,8650-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA8650-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA8650-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA8650-12-10187 35,396 - 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense A	12.800	Air Force Office of Scientific Research		FA9550-22-1-0074	20,962	-
12.800 Air Force Research Laboratory FA8650-18-2-5295 764,544 - 12.800 Air Force Research Laboratory 52,505 - 12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory 7A8650-19-2-2204 668,118 324,483 12.800 Air Force Research Laboratory 7A8650-13-2-0007 216,6976 103,914 12.800 Air Force Research Laboratory 10,537 - 12.800 Air Force Research Laboratory 10,537 - 12.800 Air Force Research Laboratory 7A8650-22-1-0103 10,537 - 12.910 Air Force Research Laboratory 7A8650-11-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D18AP00010 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00010 84,694 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency	12.800	Air Force Research Laboratory		FA8650-17-1-5277	47,652	-
12.800 Air Force Research Laboratory 52,505 - 12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory 585,931 222,949 12.800 Air Force Research Laboratory 126,976 103,914 12.800 Air Force Research Laboratory 54855-22-1-0103 10,537 - 12.800 Air Force Research Laboratory 548550-22-1-0187 35,396 - 12.800 Air Force Research Laboratory 78,48550-22-1-0187 35,396 - 12.910 Air Force Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0020 633,654 - 12.RD Air Force Research Laboratory	12.800	Air Force Research Laboratory		FA8650-18-2-5279	270,040	-
12.800 Air Force Research Laboratory 668,118 324,483 12.800 Air Force Research Laboratory FA8650-20-2-5853 585,931 222,949 12.800 Air Force Research Laboratory FA8651-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA9550-22-1-0103 10,537 - 12.800 Air Force Research Laboratory FA9550-22-1-0187 35,396 - 12.910 Air Force Research Laboratory FA8650-19-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-12-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA8650-18-2-5295	764,544	-
12.800 Air Force Research Laboratory FA8650-20-2-5853 585,931 222,949 12.800 Air Force Research Laboratory FA8651-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA9550-22-1-0103 10,537 - 12.800 Air Force Research Laboratory FA9550-22-1-0187 35,396 - 12.910 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA8650-19-1-5227	52,505	-
12.800 Air Force Research Laboratory FA8651-13-2-0007 216,976 103,914 12.800 Air Force Research Laboratory FA9550-22-1-0103 10,537 - 12.800 Air Force Research Laboratory FA9550-22-1-0187 35,396 - 12.910 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA8650-19-2-2204	668,118	324,483
12.800 Air Force Research Laboratory FA9550-22-1-0103 10,537 - 12.800 Air Force Research Laboratory FA9550-22-1-0187 35,396 - 12.910 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA8650-20-2-5853	585,931	222,949
12.800 Air Force Research Laboratory FA9550-22-1-0187 35,396 - 12.910 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA8651-13-2-0007	216,976	103,914
12.910 Air Force Research Laboratory FA8650-19-1-1741 760,975 256,069 12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA9550-22-1-0103	10,537	-
12.910 Defense Advanced Research Projects Agency D16AP00110 84,694 - 12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.800	Air Force Research Laboratory		FA9550-22-1-0187	35,396	-
12.910 Defense Advanced Research Projects Agency D18AP00008 1,330,241 - 12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.910	Air Force Research Laboratory		FA8650-19-1-1741	760,975	256,069
12.910 Defense Advanced Research Projects Agency HR0011-17-2-0054 432,917 379,714 12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.910	Defense Advanced Research Projects Agency		D16AP00110	84,694	-
12.910 Defense Advanced Research Projects Agency HR0011-21-2-0020 633,654 - 12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.910	Defense Advanced Research Projects Agency		D18AP00008	1,330,241	-
12.RD Air Force Research Laboratory FA8650-16-C-1729 22,966 - 12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.910	Defense Advanced Research Projects Agency		HR0011-17-2-0054	432,917	379,714
12.RD Air Force Research Laboratory FA8650-21-C-5256 79,708 -	12.910	Defense Advanced Research Projects Agency		HR0011-21-2-0020	633,654	-
	12.RD	Air Force Research Laboratory		FA8650-16-C-1729	22,966	-
12.RD Air Force Research Laboratory FA8650-21-C-1174 27,937 -	12.RD	Air Force Research Laboratory		FA8650-21-C-5256	79,708	-
	12.RD	Air Force Research Laboratory		FA8650-21-C-1174	27,937	-

Assistance Listi Number	Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen Funds received directly fror					
i dilas received directly iroi	In the following agencies				
12.RD	COVID Army Contracting Command		W56HZV-17-P-L530	7,294	_
12.RD	Army Medical Research Acquisition Activity		W81XWH21C0047	556,038	334,882
12.RD	COVID Army Natick Research, Development and Engineering Center		W911QY20P0086	1,512	-
12.RD	Defense Advanced Research Projects Agency		Agreement Dated 09/03/2020	242,013	-
12.RD	National Geospatial-Intelligence Agency		HM157519C0012	225,694	-
12.RD	National Geospatial-Intelligence Agency		HM157519C0014	90,342	10,000
12.RD	National Reconnaissance Office		NRO000-21-C-0092	383,646	-
12.RD	Naval Medical Research Unit - Dayton		Agreement dated 1-31-2018	98,407	-
12.RD	Naval Medical Research Unit - Dayton		N3239820P0600	56,726	-
12.RD	Naval Medical Research Unit - Dayton		PRELIMINARY AWARD	7,158	-
	Total Department of Defense Direct Awards		-	25,653,376	4,758,621
Department Housing and	·				
14.900	US Department of Housing and Urban Development		OHHHU0057-20	185,554	34,680
	Total Department of Housing and Urban Development Direct Awards		-	185,554	34,680
Department of the Interio	or .				
15.232	Bureau of Land Management		L17AC00238	90,863	24,909
15.232	Bureau of Land Management		L21AC10266	76,434	-
15.637	US Fish and Wildlife Service		F21AP04174	30,411	-
15.662	US Fish and Wildlife Service		F20AP10641	11,325	-
15.678	US Fish and Wildlife Service		F16AC01281	179,628	-
15.805	US Geological Survey		G16AP00076	59,287	30,795
15.805	US Geological Survey		G21AP10593	50,020	42,194
15.808	US Geological Survey		G17AC00350	6,659	-
15.808	US Geological Survey		G19AC00418	7,701	-
15.944	National Park Service		P19AC00964	14,293	-
15.RD	Bureau of Ocean Energy Management		140M0119P0041	3,313	-
	Total Department of the Interior Direct Awards		- -	529,934	97,898
Department of Justice					
16.560	National Institute of Justice		2019-DU-BX-0040	190,356	-
16.560	National Institute of Justice		2020-R2-CX-0021	6,611	-
	Total Department of Justice Direct Awards		-	196,967	-
Department of Labor					
17.502	US Department of Labor		SH99053SH0	55,918	-
17.RD	Bureau of Labor Statistics		1625DC-19-C-0004	8,151,439	5,631,329
17.RD	Bureau of Labor Statistics		DOL-BLS-15-D-0005	1,034,539	31,412
			_	9,241,896	5,662,741

Assistance L Number		Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developm	nent Cluster — from the following agencies				
i unus received directly i	Total the following agencies				
Department of Transpo	ortation				
20.106	COVID Federal Aviation Administration		3-39-0027-037-2021	22,864	-
20.108	Federal Aviation Administration		16-G-007	126,763	-
20.108	Federal Aviation Administration		692M152140002	69,311	-
20.108	Federal Aviation Administration		692M152140008	206,744	-
20.109	Federal Aviation Administration		12-C-GA-OSU	7,086	-
20.109	Federal Aviation Administration		15-C-UAS-OSU-A	862,052	-
20.109	Federal Aviation Administration		16-C-TTHP-OSU-A	94,471	-
20.530	Federal Transit Administration		OH-2019-009-00	245,761	38,456
20.530	Federal Transit Administration		OH-2019-039-00	97,997	-
20.701	US Department of Transportation		69A3552047138	882,730	258,919
20.724	US Department of Transportation		693JK31850002CAAP	3,954	-
	Total Department of Transportation Direct Awards			2,619,733	297,375
National Aeronautics a	and Space Administration				
43.001	Goddard Space Flight Center		80NSSC20K0128	127,562	-
43.001	National Aeronautics and Space Administration		80NSSC17K0200	89,828	-
43.001	National Aeronautics and Space Administration		80NSSC18K0703	124,633	34,987
43.001	National Aeronautics and Space Administration		80NSSC18K0981	27,785	25,697
43.001	National Aeronautics and Space Administration		80NSSC18K1497	6,656	-
43.001	National Aeronautics and Space Administration		80NSSC18K1582	6,308	-
43.001	National Aeronautics and Space Administration		80NSSC19K1250	12,793	-
43.001	National Aeronautics and Space Administration		80NSSC19K1362	5,964	-
43.001	National Aeronautics and Space Administration		80NSSC20K0491	126,994	93,271
43.001	National Aeronautics and Space Administration		80NSSC20K1009	136,476	-
43.001	National Aeronautics and Space Administration		80NSSC20K1292	78,172	-
43.001	National Aeronautics and Space Administration		80NSSC20K1339	116,669	-
43.001	National Aeronautics and Space Administration		80NSSC21K0613	447,121	112,402
43.001	National Aeronautics and Space Administration		80NSSC20K1422	13,551	-
43.001	National Aeronautics and Space Administration		80NSSC21K1761	38,045	-
43.001	National Aeronautics and Space Administration		80NSSC21K1182	91,944	1,928
43.001	National Aeronautics and Space Administration		80NSSC21K1786	35,826	-
43.001	National Aeronautics and Space Administration		80NSSC21K0876	24,904	-
43.001	National Aeronautics and Space Administration		80NSSC22K0496	6,657	-
43.001	National Aeronautics and Space Administration		80NSSC22K1091	551	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC18K0232	330	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC18K0526	36,954	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC18K0712	115,757	29,874
43.001	National Aeronautics and Space Administration Headquarters		80NSSC18K0748	47,336	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC18K1014	210,377	146,934
43.001	National Aeronautics and Space Administration Headquarters		80NSSC18K1027	47,581	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC19K0115	(2,219)	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC19K0367	3,626	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC19K0756	25,621	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC19K1519	16,479	-

Assistance List	ting		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Developmen					
Funds received directly fro	m the following agencies				
43.001	National Aeronautics and Space Administration Headquarters		80NSSC20K0494	120,858	_
43.001	National Aeronautics and Space Administration Headquarters		80NSSC20K0531	114,260	_
43.001	National Aeronautics and Space Administration Headquarters		80NSSC20K0773	204,246	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC20K1354	180,448	51,715
43.001	National Aeronautics and Space Administration Headquarters		80NSSC20K1658	44,394	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC20K1741	70,557	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC21K0267	25,442	-
43.001	National Aeronautics and Space Administration Headquarters		NNX16AF49G	8,258	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC21K1010	371	238
43.001	National Aeronautics and Space Administration Headquarters		80NSSC22K0191	40,464	-
43.001	National Aeronautics and Space Administration Headquarters		80NSSC22K0128	6,228	-
43.002	National Aeronautics and Space Administration Headquarters		80NSSC19K1686	34,642	-
43.002	National Aeronautics and Space Administration Headquarters		NNX14AL87A	10,367	-
43.002	National Aeronautics and Space Administration Headquarters		NNX17AJ92A	2,017,514	698,994
43.003	National Aeronautics and Space Administration Headquarters		80NSSC18K1691	79,634	-
43.003	National Aeronautics and Space Administration Headquarters		80NSSC20M0187	14,800	-
43.007	National Aeronautics and Space Administration Headquarters		80NSSC19K0429	123,746	-
43.008	National Aeronautics and Space Administration		NNX16AI79A	(3,532)	-
43.012	National Aeronautics and Space Administration		80NSSC18K1163	47,382	-
43.012	National Aeronautics and Space Administration		80NSSC18K1504	96,769	-
43.012	National Aeronautics and Space Administration		80NSSC21K0765	492,784	144,718
43.012	National Aeronautics and Space Administration		80NSSC21K1261	51,452	-
43.012	National Aeronautics and Space Administration Headquarters		80NSSC19K0216	191,373	_
43.012	National Aeronautics and Space Administration Headquarters		80NSSC21K0325	31,460	-
43.RD	Johnson Space Center		80NSSC20P1162	114	-
43.RD	National Aeronautics and Space Administration		80NSSC20P0494	21,780	_
43.RD	National Aeronautics and Space Administration		80NSSC21P1558	241,363	-
43.RD	National Aeronautics and Space Administration		80NSSC21P2500	24,410	-
43.RD	National Aeronautics and Space Administration Headquarters		80NSSC19P2060	(341)	_
43.RD	National Aeronautics and Space Administration Headquarters		NNG16PJ32C	264,297	186,754
10.11.2	Tallonial 7 to 6 hadiso and opaso 7 tallimioti allon 1 hodayaar to 6			201,201	.00,.0.
	Total National Aeronautics and Space Administration Direct Awards			6,575,821	1,527,512
National Endowment for	the Humanities				
45.163	National Endowment For The Humanities		FS-272433-20	84,920	14,673
	Total National Endowment for the Humanities Direct Awards			84,920	14,673
National Science Founda	ation				
47.041	National Science Foundation Directorate for Engineering		1548013	172,768	_
47.041	National Science Foundation Div of Bioengineering & Environmental Systems		2038055	112,919	- -
47.041	National Science Foundation Div of Chemistry		2124604	30,009	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1710598	18,429	- -
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1711102	5,895	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1711733	7,433	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1808169	118,029	-
47.041	Haddid Colonic I duridation by or Electrical, Communications and Cybersys		1000103	110,029	-

Assistance Numbe	•	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
	• • •	5 .		•	·
Research and Developr					
Funds received directly	from the following agencies				
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1808932	101,163	_
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1809570	66,093	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1809682	14,093	_
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1809894	29,496	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1810041	62,058	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1815930	40,876	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1845370	11,838	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1848872	2,951	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		1916740	117,926	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2011785	8,983	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2019753	13,400	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2020015	101,352	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2029461	51,739	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2030141	117,156	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2034140	165,181	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2105873	1,957	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2018876	717,656	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2053318	43,782	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2113860	12,790	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2128567	684	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2128945	137,651	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2140277	75,555	-
47.041	National Science Foundation Div of Electrical, Communications and CyberSys		2144375	6,585	-
47.041	National Science Foundation Div of Emerging Frontiers		1741666	292,216	276,018
47.041	National Science Foundation Div of Emerging Frontiers		1933344	430,215	161,106
47.041	National Science Foundation Div of Emerging Frontiers		2029282	656,008	-
47.041	National Science Foundation Div of Emerging Frontiers		2029397	368,102	237,868
47.041	National Science Foundation Div of Engineering Education and Centers		1664266	11,175	-
47.041	National Science Foundation Div of Engineering Education and Centers		1763357	58,445	-
47.041	National Science Foundation Div of Engineering Education and Centers		1852298	59,523	-
47.041	National Science Foundation Div of Engineering Education and Centers		1943934	133,588	-
47.041	National Science Foundation Div of Engineering Education and Centers		2024736	20,752	-
47.041	National Science Foundation Div of Engineering Education and Centers		2029446	42,270	-
47.041	National Science Foundation Div of Engineering Education and Centers		2030083	28,236	-
47.041	COVID National Science Foundation Div of Engineering Education and Centers		2030083	3,384	-
47.041	National Science Foundation Div of Engineering Education and Centers		2129308	50,742	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1608058	13,328	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1653587	122,685	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1749701	12,344	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1752106	90,787	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1803022	63,107	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1804943	169,172	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1805047	45,810	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1824617	65,386	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1932638	129,106	-
47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		1942501	48,069	-

Pasear In Drove Pasear In	Δ	ssistance Listin	n		Additional Award	Federal	Expenditures
Pensearch and Development Cluster			~	Pass-Through Sponsor			
Funds received circulty from: Performing agencies							
47.041 NSF Divid Chemical, Bioengineering, Environmental, and Transport Systems 2001125 14.742 - 47.041 NSF Divid Chemical, Bioengineering, Environmental, and Transport Systems 2001127 102,050 - 47.041 NSF Divid Chemical, Bioengineering, Environmental, and Transport Systems 2001127 102,050 - 47.041 NSF Divid Chemical, Bioengineering, Environmental, and Transport Systems 2001126 182,380 18.315 18.316 18.31							
47.041 NSF Div of Chemica, Bloengineering, Environmental, and Transport Systems 2001127 10,250 - 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2015969 78,238 - 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2005969 480,758 18,318 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2007707 20,336 40,758 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2007707 20,336 4,559 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2007707 20,338 4,571 47.041 NSF Division of Chemical, Bloengineering, Environmental, and Transport Systems 2008182 35,212 - 47.041 NSF Division of Chemical, Bloengineering, Environmental, and Transport Systems 2008182 35,212 - 47.041 NSF Division of Chemical, Bloengineering, Environmental, and Transport Systems 2008182 35,212 - 47.041 NSF Division of Chemical, Mechanical and Munification Invision Invision 15,308 47,775 -	Funds receive	ed directly from	the following agencies				
47.041 NSF Div of Chemica, Bloengineering, Environmental, and Transport Systems 2001127 10,250 - 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2015969 78,238 - 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2005969 480,758 18,318 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2007707 20,336 40,758 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2007707 20,336 4,559 47.041 NSF Div of Chemical, Bloengineering, Environmental, and Transport Systems 2007707 20,338 4,571 47.041 NSF Division of Chemical, Bloengineering, Environmental, and Transport Systems 2008182 35,212 - 47.041 NSF Division of Chemical, Bloengineering, Environmental, and Transport Systems 2008182 35,212 - 47.041 NSF Division of Chemical, Bloengineering, Environmental, and Transport Systems 2008182 35,212 - 47.041 NSF Division of Chemical, Mechanical and Munification Invision Invision 15,308 47,775 -	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2000469	129.404	-
47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 2026947 19.685 18.318 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 2037398 480.789 215.499 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 2037797 20.385 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 2133716 42.962 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 2133716 42.962 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 2133716 42.962 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 11337189 14.390 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 11337189 14.390 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 11337189 14.390 - 47.041 NSF DV of Chemical, Bioergineering, Environmental, and Transport Systems 11337189 14.390 - <							-
47.041 NSF Dio of Chemical, Bioengineering, Environmental, and Triansport Systems 2037388 880.768 215.459 47.041 NSF Dio of Chemical, Bioengineering, Environmental, and Triansport Systems 2037707 20.336 - 47.041 NSF Dio of Chemical, Bioengineering, Environmental, and Triansport Systems 2008082 58.212 - 47.041 NSF Dio of Chemical, Bioengineering, Environmental, and Triansport Systems 2133718 42.952 - 47.041 NSF Dio of Chemical, Bioengineering, Environmental, and Triansport Systems 2133718 42.952 - 47.041 NSF Diolos of CVII, Mechanical and Mandacturing Innovation 1584093 67,675 - 47.041 NSF Diolos of CVII, Mechanical and Mandacturing Innovation 1683092 10,175 19,175 47.041 NSF Diolos of CVII, Mechanical and Mandacturing Innovation 170888 40,476 - 47.041 NSF Diolos of CVII, Mechanical and Mandacturing Innovation 172884 406,155 349,087 47.041 NSF Diolos of CVII, Mechanical and Mandacturing Innovation 172844 406,155 349,087 47.041 NSF Diolos of CVII, Mechan	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2001127	102,050	-
47.041 NSF Dix of Chemical, Bioengineering, Environmental, and Transport Systems 2037308 480,788 210,438 47.041 NSF Dix of Chemical, Bioengineering, Environmental, and Transport Systems 2038982 58,212 - 47.041 NSF Dix of Chemical, Bioengineering, Environmental, and Transport Systems 2133716 42,952 - 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 153406 14,390 - 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 1585072 1,088 - 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 1585372 1,088 - 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 1682866 13,496 - 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 1708199 40,476 - 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 1727844 406,155 349,087 47.041 NSF Dixision of Chil, Mechanical and Mandricutring Innovation 1727844 406,155 349,087 47.041 NSF Dixision of Chil, Mechanical and Mandricu	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2015669	78,238	-
47,041 NSF Div Of Chemical, Beorgineering, Environmental, and Transport Systems 2008082 58,212 - 47,041 NSF Div Of Chemical, Bioorgineering, Environmental, and Transport Systems 2038082 58,212 - 47,041 NSF Div Of Chemical, Bioorgineering, Environmental, and Transport Systems 2133718 42,952 - 47,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 15541083 67,875 - 47,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 15541083 67,875 - 10,887 NSF Division of Civil, Mechanical and Manufacturing Innovation 15533728 1,058 - 47,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1655599 13,175 19,175 19,176 17,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1655599 13,175 19,176 17,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 17,08819 40,476 17,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 17,08819 40,476 17,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 17,08819 41,587 17,041 NSF Division of Civil, Mechanical and Manufacturing Innovation 18,084 19,087 19,088 19,08	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2029847	19,685	18,315
47,041 NSF Div of Chemical, Biorgineering, Environmental, and Transport Systems 20,808.2 \$5,212 -4 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1531785 11,300 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1551785 11,300 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1553772 10,08 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1605569 19,175 19,175 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1602646 13,406 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1727894 40,155 349,087 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1826449 12,146 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1823449 12,246 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation 1823345 25,21 - 47,041 NSF Division of CivI, Mechanical and Manufacturing Innovation <t< td=""><td>4</td><td>7.041</td><td>NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems</td><td></td><td>2037398</td><td>480,796</td><td>215,459</td></t<>	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2037398	480,796	215,459
47,041 NSF Division of Chil, Mechanical and Manufacturing Innovation 1537185 14,360 - 4,7041 NSF Division of Chil, Mechanical and Manufacturing Innovation 1556033 67,675 - 4,7041 NSF Division of Chil, Mechanical and Manufacturing Innovation 1556033 15,755 - 4,7041 NSF Division of Chil, Mechanical and Manufacturing Innovation 1563372 1,058 - 4,7041 NSF Division of Chil, Mechanical and Manufacturing Innovation 15635869 19,175 19,176 17,000 1,000	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2037707	20,336	-
47.041 NSF Division of Chil, Mechanical and Manufacturing Innovation 1551785 14.300	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2036982	58,212	-
47 041 NSF Division of Civil, Mechanical and Manufacturing Innovation 156308372 1.058 -	4	7.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems		2133718	42,952	-
47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 168372 1,058 -1,9175 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 1682646 13,496 -1,744 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 1708819 40,476 -1,744 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 1727894 406,155 349,087 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 176294 406,155 349,087 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 1826149 132,146 -1 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 1833345 25,152 - 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 18033345 25,152 - 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 190,2408 101,303 - 47 041 NSF Division of Civil. Mechanical and Manufacturing Innovation 192,29873 15,919 - 47 041 NSF Division of Civil. Mechanical and Manufacturing Inn	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1531785	14,390	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1635699 19,175 13,496 147.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1708819 40,476 1708819 40,476 1708819 40,476 1708819 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1708819 40,476 1708819 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1708819 1708819 18,2146 18,274 1	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1554063	67,675	-
47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1682646 13.496 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1727894 40.55 349.087 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1762918 41.587 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1828149 132.146 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1853352 25,612 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1853852 109.221 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 1912408 101.303 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 19128973 15,919 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 2019288 76,522 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation 2019288 13,386 - 47.041 NSP Division of Civil, Mechanical and Manufacturing Innovation	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1563372	1,058	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 170819 40,476 5 349,087 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1727894 40,515 349,087 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1828149 132,146 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1828349 132,146 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1858362 109,221 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1802488 101,303 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 192,881 331,862 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 192,883 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 75,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019388 75,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1635569	19,175	19,175
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 172994 406, 155 349,087 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1828149 132,146 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 183345 25,612 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 183345 25,612 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1902408 101,303 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1921881 318,682 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1928973 15,919 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2038193 73,717 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1662646	13,496	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 176:2918 41,587 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 182:149 132,146 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1833345 25,612 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1805692 109,221 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1902408 101,303 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1928873 15,919 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 201948 143,630 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2038573 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2038193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2045	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1708819	40,476	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1826149 122,146 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1833345 25.612 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1802408 101,303 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1921881 331,862 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1929873 15,919 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019868 143,630 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 203887 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 204856 17,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 204526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2045256	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1727894	406,155	349,087
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1833345 25,612 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1902408 101,303 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 19021881 331,662 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1929873 15,919 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2023857 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2043254 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2043254 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 20235	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1762918	41,587	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1853632 109.221 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1902408 101,303 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1921811 331,862 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 75,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019848 143,630 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 203857 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 203857 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1826149	132,146	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1924881 331,862 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1921881 331,862 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019848 143,630 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2023857 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2042354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 201	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1833345	25,612	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 192181 331,862 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1929973 15,919 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019648 143,630 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2038937 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,864 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2045264 47,864 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 200156 7,46 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1853632	109,221	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 1928873 15,919 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019648 143,630 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2023857 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2042354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 20111412 99,351 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 200156 7,446 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 200156 7,	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1902408	101,303	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019238 76,522 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2023657 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2042354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019056 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019056 7,446 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 200905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 200156 7,446 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 180,254 </td <td>4</td> <td>7.041</td> <td>NSF Division of Civil, Mechanical and Manufacturing Innovation</td> <td></td> <td>1921881</td> <td>331,862</td> <td>-</td>	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1921881	331,862	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2019648 143,630 - 147.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2023857 122,008 - 2036193 73,171 -	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		1929873	15,919	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 203857 122,008 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 204354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2020905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2020156 7.446 - 47.041 NSF Division of Industrial Innovation and Partnerships 153,992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 153,992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 182,249 147.041 NSF Division of Industrial Innovation and Partnerships 182,244 141,846 - 47.041 NSF Division of Industrial Innovation and Partnerships 182,549 147.041 NSF Division of Industrial Innovation and Partnerships 182,549 147.041 NSF Division of Industrial Innovation and Partnerships 182,549 147.041 NSF Division of Industrial Innovation and Partnerships 182,549 147.041 NSF Division of Industrial Innovation and Partnerships 182,549 147.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 201644601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 201645 201645 201645 201645 201645 201645 201645 20164	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2019238	76,522	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2036193 73,171 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 20429354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2111412 99,361 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000156 7,446 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 182743 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 191661 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2019648	143,630	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2044526 47,854 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2042354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2111412 99,351 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000156 7,446 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 1738723 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 191651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partne	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2023857	122,008	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2042354 18,614 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2111412 99,351 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000156 7,446 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 1738723 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 191804 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships<	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2036193	73,171	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2029905 120,656 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2111412 99,351 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000156 7,446 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 1738723 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822745 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2044526	47,854	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2111412 99,351 - 47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000156 7,446 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 1738723 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2042354	18,614	-
47.041 NSF Division of Civil, Mechanical and Manufacturing Innovation 2000156 7,446 - 47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 1738723 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523<	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2029905	120,656	-
47.041 NSF Division of Industrial Innovation and Partnerships 1539992 13,828 - 47.041 NSF Division of Industrial Innovation and Partnerships 1738723 182,549 - 47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 NSF Division of Industrial Innovation and Partnerships 2109938	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2111412	99,351	-
47.041 NSF Division of Industrial Innovation and Partnerships	4	7.041	NSF Division of Civil, Mechanical and Manufacturing Innovation		2000156	7,446	-
47.041 NSF Division of Industrial Innovation and Partnerships 1822144 418,946 - 47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 NSF Division of Industrial Innovation and Partnerships 210938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		1539992	13,828	-
47.041 NSF Division of Industrial Innovation and Partnerships 1827545 23,839 - 47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		1738723	182,549	-
47.041 NSF Division of Industrial Innovation and Partnerships 1916651 45,176 - 47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		1822144	418,946	-
47.041 NSF Division of Industrial Innovation and Partnerships 1919204 216,231 - 47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		1827545	23,839	-
47.041 NSF Division of Industrial Innovation and Partnerships 2016445 124,531 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		1916651	45,176	-
47.041 NSF Division of Industrial Innovation and Partnerships 2044704 61,760 - 47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		1919204	216,231	-
47.041 NSF Division of Industrial Innovation and Partnerships 2044601 89,346 - 47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		2016445	124,531	-
47.041 NSF Division of Industrial Innovation and Partnerships 2052747 141,502 - 47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		2044704	61,760	-
47.041 NSF Division of Industrial Innovation and Partnerships 2140523 28,224 - 47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		2044601	89,346	-
47.041 COVID National Science Foundation Div of Engineering Education and Centers 2109938 8,174 - 47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		2052747	141,502	-
47.041 COVID National Science Foundation Div of Civil & Mechanical Structures 2143123 36,564 -	4	7.041	NSF Division of Industrial Innovation and Partnerships		2140523	28,224	-
, ,	4	7.041	COVID National Science Foundation Div of Engineering Education and Centers		2109938	8,174	-
47.049 National Science Foundation Directorate Mathematical & Physical Sciences 1721445 2,180 -	4	7.041	COVID National Science Foundation Div of Civil & Mechanical Structures		2143123	36,564	-
	4	7.049	National Science Foundation Directorate Mathematical & Physical Sciences		1721445	2,180	-

Assistance Listi Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen	t Cluster —				
Funds received directly from					
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		1723003	7,843	-
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		1809837	56,185	-
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		1813628	47,768	-
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		1847964	146,080	-
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		1913261	21,132	-
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		1916446	10,922	-
47.049	National Science Foundation Directorate Mathematical & Physical Sciences		2208855	1,300	-
47.049	National Science Foundation Div of Astronomical Sciences		1516967	53,113	_
47.049	National Science Foundation Div of Astronomical Sciences		1615105	38,876	_
47.049	National Science Foundation Div of Astronomical Sciences		1653300	89,356	_
47.049	National Science Foundation Div of Astronomical Sciences		1715284	1,619	_
47.049	National Science Foundation Div of Astronomical Sciences		1814440	144,036	-
47.049	National Science Foundation Div of Astronomical Sciences		1908570	106,069	_
47.049	National Science Foundation Div of Astronomical Sciences		1909841	103,333	_
47.049	National Science Foundation Div of Astronomical Sciences		2007023	61,912	_
47.049	National Science Foundation Div of Astronomical Sciences		2008110	152,283	-
47.049	National Science Foundation Div of Astronomical Sciences		2009735	92,030	-
47.049	National Science Foundation Div of Astronomical Sciences		2037839	150,440	_
47.049	COVID National Science Foundation Div of Astronomical Sciences		2143400	37,346	_
47.049	National Science Foundation Div of Chemistry		1454289	63,029	_
47.049	National Science Foundation Div of Chemistry		1455162	59.146	_
47.049	National Science Foundation Div of Chemistry		1606404	4,714	_
47.049	National Science Foundation Div of Chemistry		1610254	12,077	_
47.049	National Science Foundation Div of Chemistry		1654656	54,615	_
47.049	National Science Foundation Div of Chemistry		1750666	80,084	_
47.049	National Science Foundation Div of Chemistry		1764170	29,574	_
47.049	National Science Foundation Div of Chemistry		1800239	2,027	_
47.049	National Science Foundation Div of Chemistry		1800395	38,284	35,083
47.049	National Science Foundation Div of Chemistry		1800414	23,533	-
47.049	National Science Foundation Div of Chemistry		1800471	29,416	_
47.049	National Science Foundation Div of Chemistry		1807922	109,550	_
47.049	National Science Foundation Div of Chemistry		1856442	94,059	_
47.049	National Science Foundation Div of Chemistry		1900064	137,695	_
47.049	National Science Foundation Div of Chemistry		1900141	130,504	_
47.049	National Science Foundation Div of Chemistry		1900271	101,679	_
47.049	National Science Foundation Div of Chemistry		1904560	185,873	_
47.049	National Science Foundation Div of Chemistry		1955282	90,571	_
47.049	National Science Foundation Div of Chemistry		2002781	114,814	_
47.049	National Science Foundation Div of Chemistry		2003648	106,323	_
47.049	National Science Foundation Div of Chemistry		2044648	163,396	_
47.049	National Science Foundation Div of Chemistry		2044904	80,885	_
47.049	National Science Foundation Div of Chemistry		2101002	107,991	_
47.049	National Science Foundation Div of Chemistry		2106924	177,802	-
47.049	National Science Foundation Div of Chemistry		2107791	167,284	_
47.049	National Science Foundation Div of Chemistry		2103725	9,676	_
47.049	National Science Foundation Div of Chemistry		2107636	65,773	_
			2.0.000	55,776	

Assistance Listi Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Development	t Cluster —				
Funds received directly from					
47.049	National Science Foundation Div of Chemistry		2102508	178,902	53,919
47.049	National Science Foundation Div of Chemistry		2102313	102,706	(1)
47.049	National Science Foundation Div of Chemistry		2117225	193,511	-
47.049	National Science Foundation Div of Chemistry		2140211	26,058	_
47.049	National Science Foundation Div of Chemistry		2108684	73,530	-
47.049	National Science Foundation Div of Design & Manufacturing Innovation		1553355	40,663	-
47.049	National Science Foundation Div of Materials Research		1420451	52,241	27,327
47.049	National Science Foundation Div of Materials Research		1609142	30,127	-
47.049	National Science Foundation Div of Materials Research		1625349	57,397	_
47.049	National Science Foundation Div of Materials Research		1629382	847	_
47.049	National Science Foundation Div of Materials Research		1653769	124,744	_
47.049	National Science Foundation Div of Materials Research		1708957	1,404	-
47.049	National Science Foundation Div of Materials Research		1709236	34,089	_
47.049	National Science Foundation Div of Materials Research		1755479	8,436	992
47.049	National Science Foundation Div of Materials Research		1800130	17,841	_
47.049	National Science Foundation Div of Materials Research		1802432	42,453	-
47.049	National Science Foundation Div of Materials Research		1807928	13,686	-
47.049	National Science Foundation Div of Materials Research		1808145	43,583	_
47.049	National Science Foundation Div of Materials Research		1808704	144,685	_
47.049	National Science Foundation Div of Materials Research		1905748	207,154	_
47.049	National Science Foundation Div of Materials Research		1905835	111.505	_
47.049	National Science Foundation Div of Materials Research		1922076	71,324	_
47.049	National Science Foundation Div of Materials Research		1922239	459,453	_
47.049	National Science Foundation Div of Materials Research		1923929	70,139	_
47.049	National Science Foundation Div of Materials Research		1943870	149,532	_
47.049	National Science Foundation Div of Materials Research		2003793	162,050	_
47.049	National Science Foundation Div of Materials Research		2004801	137,281	_
47.049	National Science Foundation Div of Materials Research		2011876	2,442,026	92,055
47.049	National Science Foundation Div of Materials Research		2045742	74,726	-
47.049	National Science Foundation Div of Materials Research		2047308	103,643	_
47.049	National Science Foundation Div of Materials Research		2105028	89,769	_
47.049	National Science Foundation Div of Materials Research		2104724	68,477	_
47.049	National Science Foundation Div of Mathematical Sciences		1440386	3,896	_
47.049	National Science Foundation Div of Mathematical Sciences		1547357	230,192	_
47.049	National Science Foundation Div of Mathematical Sciences		1554896	83,633	_
47.049	National Science Foundation Div of Mathematical Sciences		1564395	95,964	_
47.049	National Science Foundation Div of Mathematical Sciences		1654159	122,097	_
47.049	National Science Foundation Div of Mathematical Sciences		1700194	31,231	_
47.049	National Science Foundation Div of Mathematical Sciences		1748837	91,033	_
47.049	National Science Foundation Div of Mathematical Sciences		1752345	52,374	_
47.049	National Science Foundation Div of Mathematical Sciences		1753581	59,577	_
47.049	National Science Foundation Div of Mathematical Sciences		1757423	56,700	_
47.049	National Science Foundation Div of Mathematical Sciences		1800777	25,612	-
47.049	National Science Foundation Div of Mathematical Sciences		1812028	101	_
47.049	National Science Foundation Div of Mathematical Sciences		1813071	92,916	_
47.049	National Science Foundation Div of Mathematical Sciences		1814737	37,696	_
				3.,000	

Accietance Lice	tion.		Additional Award	Federal	Expenditures
Assistance Lis Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
	, outside regions, openios.	. acccag openes.	100111110011011	ZAPONIANAIOO	to out on plotte
Research and Developme	nt Cluster —				
Funds received directly fro	m the following agencies				
47.049	National Science Foundation Div of Mathematical Sciences		1823150	617	_
47.049	National Science Foundation Div of Mathematical Sciences		1829955	31,282	-
47.049	National Science Foundation Div of Mathematical Sciences		1830547	9,772	3,007
47.049	National Science Foundation Div of Mathematical Sciences		1853561	28,340	-
47.049	National Science Foundation Div of Mathematical Sciences		1853587	32,852	_
47.049	National Science Foundation Div of Mathematical Sciences		1902199	89,237	_
47.049	National Science Foundation Div of Mathematical Sciences		1916231	14,725	-
47.049	National Science Foundation Div of Mathematical Sciences		1936283	6,667	-
47.049	National Science Foundation Div of Mathematical Sciences		1945212	64,814	_
47.049	National Science Foundation Div of Mathematical Sciences		1949369	5,765	_
47.049	National Science Foundation Div of Mathematical Sciences		1954463	86,282	_
47.049	National Science Foundation Div of Mathematical Sciences		1955564	59,466	_
47.049	National Science Foundation Div of Mathematical Sciences		2000885	29,437	_
47.049	National Science Foundation Div of Mathematical Sciences		2005297	32,711	_
47.049	National Science Foundation Div of Mathematical Sciences		2005630	142,673	_
47.049	National Science Foundation Div of Mathematical Sciences		2015226	21,305	_
47.049	National Science Foundation Div of Mathematical Sciences		2015490	34,134	_
47.049	National Science Foundation Div of Mathematical Sciences		2015552	90,387	_
47.049	COVID National Science Foundation Div of Mathematical Sciences		2027001	29,347	_
47.049	National Science Foundation Div of Mathematical Sciences		2115518	45,210	_
47.049	National Science Foundation Div of Mathematical Sciences		2120325	72,601	_
47.049	National Science Foundation Div of Mathematical Sciences		1916606	7,860	_
47.049	National Science Foundation Div of Mathematical Sciences		1954163	37.610	_
47.049	National Science Foundation Div of Mathematical Sciences		2002442	25,008	_
47.049	National Science Foundation Div of Mathematical Sciences		2109683	73,993	_
47.049	National Science Foundation Div of Mathematical Sciences		2134145	19.112	_
47.049	National Science Foundation Div of Mathematical Sciences		2204787	22,028	_
47.049	National Science Foundation Div of Mathematical Sciences		2138905	8,163	_
47.049	National Science Foundation Div of Mathematical Sciences		2203429	5,157	_
47.049	National Science Foundation Div of Physics		1605042	260,170	_
47.049	National Science Foundation Div of Physics		1806923	40.135	_
47.049	National Science Foundation Div of Physics		1913069	216,104	_
47.049	National Science Foundation Div of Physics		2012955	123,565	_
47.049	National Science Foundation Div of Physics		2012980	91,905	-
47.049	National Science Foundation Div of Physics		2013134	74,380	-
47.049	National Science Foundation Div of Physics		2109222	27,957	1,325
47.049	National Science Foundation SBE Office of Multidisciplinary Activities		1936219	537,218	10,907
47.049	National Science Foundation Div of Chemistry		1935885	2,991,043	48,348
47.050	National Science Foundation Directorate for Geosciences		1744067	4,364	40,540
47.050 47.050	National Science Foundation Directorate for Geosciences National Science Foundation Directorate for Geosciences		1752882	108,009	- -
47.050 47.050	National Science Foundation Directorate for Geosciences National Science Foundation Directorate for Geosciences		1854991	59,695	- -
47.050 47.050	National Science Foundation Directorate for Geosciences National Science Foundation Directorate for Geosciences		1911482	19,657	-
47.050 47.050	National Science Foundation Directorate for Geosciences National Science Foundation Directorate for Geosciences		1911462	18,942	-
47.050 47.050	National Science Foundation Directorate for Geosciences National Science Foundation Directorate for Geosciences		1927920 1927840	18,942 6,599	-
47.050 47.050	National Science Foundation Directorate for Geosciences National Science Foundation Div of Atmospheric Sciences		1927840	10,885	-
	•		1805819	228,222	-
47.050	National Science Foundation Div of Atmospheric Sciences		1800019	228,222	-

Assistance Listi Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen	t Cluster —				
Funds received directly from					
47.050	National Science Foundation Div of Atmospheric Sciences		2002521	105,314	-
47.050	National Science Foundation Div of Atmospheric Sciences		2002539	72,347	-
47.050	National Science Foundation Div of Atmospheric Sciences		2029804	84,729	-
47.050	National Science Foundation Div of Atmospheric Sciences		2032559	68,119	-
47.050	National Science Foundation Div of Atmospheric Sciences		1936585	4,175	-
47.050	National Science Foundation Div of Earth Sciences		1656907	71,102	-
47.050	National Science Foundation Div of Earth Sciences		1724693	104,057	_
47.050	National Science Foundation Div of Earth Sciences		1752995	82,255	-
47.050	National Science Foundation Div of Earth Sciences		1819086	75,980	_
47.050	National Science Foundation Div of Earth Sciences		1831126	6,001	_
47.050	National Science Foundation Div of Earth Sciences		2002506	56,076	_
47.050	National Science Foundation Div of Earth Sciences		2038207	65,492	-
47.050	National Science Foundation Div of Earth Sciences		2113155	43,668	_
47.050	National Science Foundation Div of Earth Sciences		2114028	2,342	_
47.050	National Science Foundation Div of Ocean Sciences		1536989	7,697	4,998
47.050	National Science Foundation Div of Ocean Sciences		1829640	191,983	· -
47.050	National Science Foundation Div of Ocean Sciences		1829831	255,648	-
47.050	National Science Foundation Div of Ocean Sciences		1830726	9,444	_
47.050	National Science Foundation Div of Ocean Sciences		1838667	89,931	_
47.050	National Science Foundation Div of Ocean Sciences		1945543	64,757	_
47.050	National Science Foundation Division of Polar Programs		1543453	9.840	_
47.050	National Science Foundation Division of Polar Programs		1612741	33,272	_
47.050	National Science Foundation Division of Polar Programs		1643713	560,033	12,310
47.050	National Science Foundation Division of Polar Programs		1724786	33,991	-
47.050	National Science Foundation Division of Polar Programs		1744961	93,370	_
47.050	National Science Foundation Division of Polar Programs		1745074	570,657	70,146
47.050	National Science Foundation Division of Polar Programs		1823135	139,430	17,361
47.050	National Science Foundation Division of Polar Programs		1838401	56,342	-
47.050	National Science Foundation Division of Polar Programs		1841228	135,134	_
47.050	National Science Foundation Division of Integrative and Collaborative Education		2113863	23,981	_
47.070	National Science Foundation		2128947	13,792	_
47.070	National Science Foundation Directorate for Engineering		1912166	9,163	7,981
47.070	National Science Foundation Div of Computer and Network Systems		1518829	19,074	-
47.070	National Science Foundation Div of Computer and Network Systems		1618520	11,796	_
47.070	National Science Foundation Div of Computer and Network Systems		1717045	30,264	_
47.070	National Science Foundation Div of Computer and Network Systems		1717060	212,304	_
47.070	National Science Foundation Div of Computer and Network Systems		1731698	(30)	_
47.070	National Science Foundation Div of Computer and Network Systems		1814923	69,166	_
47.070	National Science Foundation Div of Computer and Network Systems		1823070	3,152	_
47.070	National Science Foundation Div of Computer and Network Systems		1824337	71,151	_
47.070	National Science Foundation Div of Computer and Network Systems		1834213	138,963	-
47.070	National Science Foundation Div of Computer and Network Systems		1834215	189,150	_
47.070	National Science Foundation Div of Computer and Network Systems		1834216	139,032	-
47.070	National Science Foundation Div of Computer and Network Systems		1901057	79,663	-
47.070	National Science Foundation Div of Computer and Network Systems		1908020	165,428	-
47.070	National Science Foundation Div of Computer and Network Systems		2007231	149,877	-
			200.20.	,	

Assistation Unitarial Production of Computer of Management of Parks Trinningh Sportson of Development Cluster — Function and Development Cluster — Security from the Editorial Sportson of State Production of Computer and Network Systems 2007881 56,4076 56,4076 7.77 6.77 6.77 6.77 6.77 7.77							
Funds concluded directify from the following agencies					Additional Award	Federal	Expenditures
Funds received directly from the following agencies		Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Funds received directly from the following agencies	Research	and Development	Cluster —				
### 47 0770 National Science Foundation Div of Computer and Network Systems 2007581 5.4,976							
47.070 National Science Foundation Dir of Computer and Network Systems 2042/15 2,1706 - 2,47070 National Science Foundation Dir of Computer and Network Systems 2042/15 2,1706 - 2,47070 National Science Foundation Dir of Computer and Network Systems 1955055 206.016 - 3,47070 National Science Foundation Dir of Computer and Network Systems 1955055 206.016 - 3,47070 National Science Foundation Dir of Computer and Network Systems 1955055 206.016 - 3,47070 National Science Foundation Dir of Computer and Network Systems 2052743 17,300 - 3,47070 National Science Foundation Dir of Computer and Network Systems 2052743 17,300 - 3,670,47070 National Science Foundation Dir of Computer and Network Systems 2052743 17,300 - 3,670,47070 National Science Foundation Dir of Computer and Network Systems 2052743 17,300 - 3,670,470 National Science Foundation Dir of Computer and Network Systems 2052744 17,070 National Science Foundation Dir of Computer and Network Systems 2052744 17,070 National Science Foundation Dir of Computer and Network Systems 205274 17,070 National Science Foundation Dir of Computer and Network Systems 205274 17,070 National Science Foundation Dir of Computer and Network Systems 205274 17,070 National Science Foundation Dir of Computer and Network Systems 205274 17,070 National Science Foundation Dir of Computer and Network Systems 205274 17,070 National Science Foundation Dir of Computing & Communication Foundations 105292 22,477 40,152 47,070 National Science Foundation Dir of Computing & Communication Foundations 105292 22,477 40,152 47,070 National Science Foundation Dir of Computing & Communication Foundations 117,077 17,077 National Science Foundation Dir of Computing & Communication Foundations 117,077 17,077 National Science Foundation Dir of Computing & Communication Foundations 117,077 17,077 National Science Foundation Dir of Computing & Communication Foundations 119,077 17,077 National Science Foundation Dir of Computing & Communication Foundations 119,077 17,077 National Science Foundation Dir of		,					
## 47 070 National Science Foundation Div of Computer and Nethorsh Systems 200233 6.1,303 6.7 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 195535 208,016 6.7 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2100299 62,400 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 20052743 17,300 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 20052743 17,300 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106932 26,241 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106933 27,273 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106933 27,273 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106917 17,849 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106117 17,841 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106117 17,841 6.1 ## 47 070 National Science Foundation Div of Computer and Nethoric Systems 2106117 17,841 6.1 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 17,688 36 2.4 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 17,688 36 2.4 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 17,098 3.5 4.5 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 17,098 3.3 4.5 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 18,098 4.5 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 18,098 4.5 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 18,098 4.5 ## 47 070 National Science Foundation Div of Computing A Communication Foundations 18,098 4.5		47.070	National Science Foundation Div of Computer and Network Systems		2007581	54,978	-
## 27070 National Science Foundation Dir of Computer and Network Systems 195535 208,016 -		47.070	COVID National Science Foundation Div of Computer and Network Systems		2028547	5,274	-
47.070 National Science Foundation Dir of Computer and Network Systems 2110259 (62.48) - 47.070 National Science Foundation Dir of Computer and Network Systems 2062743 (17.08) - 47.070 National Science Foundation Dir of Computer and Network Systems 2062743 (17.08) - 47.070 National Science Foundation Dir of Computer and Network Systems 2106932 (26.24) - 47.070 National Science Foundation Dir of Computer and Network Systems 2106933 (27.73) - 47.070 National Science Foundation Dir of Computer and Network Systems 2106933 (27.73) - 47.070 National Science Foundation Dir of Computer and Network Systems 2106177 (75.441 - 47.070 National Science Foundation Dir of Computer and Network Systems 2106177 (75.441 - 47.070 National Science Foundation Dir of Computer and Network Systems 201464 (32.34) - 47.070 National Science Foundation Dir of Computer and Network Systems 201464 (32.34) - 47.070 National Science Foundation Dir of Computer and Network Systems 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.070 National Science Foundation Dir of Computing A Communication Foundations 201464 (32.34) - 47.		47.070	National Science Foundation Div of Computer and Network Systems		2042715	21,706	-
47 070 National Science Foundation Dir of Computer and Network Systems 21 10299 62,480 - 47 070 National Science Foundation Dir of Computer and Network Systems 2109532 26,241 - 47 070 National Science Foundation Dir of Computer and Network Systems 2109533 27,273 - 47 070 National Science Foundation Dir of Computer and Network Systems 2112471 1,168,398 611,128 47 070 National Science Foundation Dir of Computer and Network Systems 2106117 75,941 - 47 070 National Science Foundation Dir of Computer and Network Systems 2002644 32,391 - 47 070 National Science Foundation Dir of Computing a Communication Foundations 151,994 180,053 - 47 070 National Science Foundation Dir of Computing a Communication Foundations 171,038 36 - 47 070 National Science Foundation Dir of Computing a Communication Foundations 171,038 36 - 47 070 National Science Foundation Dir of Computing a Communication Foundations 171,038 36 - 47 0700 National Science Foundation Dir of Computi		47.070	National Science Foundation Div of Computer and Network Systems		2102233	61,303	-
47.070 National Science Foundation Div of Computer and Network Systems 2052/13 17.930 - 47.070 National Science Foundation Div of Computer and Network Systems 2168333 27.273 - 47.070 National Science Foundation Div of Computer and Network Systems 2116471 11,58,939 601,228 47.070 National Science Foundation Div of Computer and Network Systems 2042644 32,391 - 47.070 National Science Foundation Div of Computing & Communication Foundations 1513944 18,083 - 47.070 National Science Foundation Div of Computing & Communication Foundations 11623992 82,457 48,152 47.070 National Science Foundation Div of Computing & Communication Foundations 11740761 40,301 - 47.070 National Science Foundation Div of Computing & Communication Foundations 11740761 40,301 - 47.070 National Science Foundation Div of Computing & Communication Foundations 11860677 85,039 - 47.070 National Science Foundation Div of Computing & Communication Foundations 18166877 85,039 - 47.070 Natio		47.070	National Science Foundation Div of Computer and Network Systems		1955535	206,016	-
47.070 National Science Foundation Div of Computer and Network Systems 2106933 27.273 - 1.000 National Science Foundation Div of Computer and Network Systems 2112471 1,158.099 61,128 47.070 National Science Foundation Div of Computer and Network Systems 2112471 1,158.099 61,128 47.070 National Science Foundation Div of Computer and Network Systems 2020404 32,291 - 4.0707 National Science Foundation Div of Computer and Network Systems 2020404 32,291 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1539044 18,083 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1740781 40,310 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1740781 40,310 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1740781 40,310 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1740781 40,310 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 180855 (5,521) - 4.0707 National Science Foundation Div of Computing & Communication Foundations 180855 (5,521) - 4.0707 National Science Foundation Div of Computing & Communication Foundations 180855 (5,521) - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1839356 31,318 1.59 4.0707 National Science Foundation Div of Computing & Communication Foundations 1839356 37,072 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1839356 37,072 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1900145 38,082 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1900145 38,082 - 4.0707 National Science Foundation Div of Computing & Communication Foundations 1909391 68,745 - 4.0707 National Science Foundation Div of Computing & Communication		47.070	National Science Foundation Div of Computer and Network Systems		2110259	62,490	-
47,070 National Science Foundation Div of Computer and Network Systems 210823 112471 1,158,93 601,128 1,700 National Science Foundation Div of Computer and Network Systems 2108171 75,941 1,518,93 61,128 1,700 National Science Foundation Div of Computer and Network Systems 20082484 32,341 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1513944 15,083 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1523982 22,457 48,152 47,070 National Science Foundation Div of Computing & Communication Foundations 1740761 40,310 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1740761 40,310 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1761966 54,344 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1761966 54,344 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1801865 5,0521 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1801865 5,0521 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1801865 3,053 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1833956 3,518 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1833956 3,518 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1833956 3,518 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1,900145 3,802 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1,900145 3,802 - 1,700 National Science Foundation Div of Computing & Communication Foundations 1,900145 3,802 - 1,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,900145 3,		47.070	National Science Foundation Div of Computer and Network Systems		2052743	17,930	-
47.070 National Science Foundation Div of Computer and Network Systems 21 (2471 7.59.481		47.070	National Science Foundation Div of Computer and Network Systems		2106932	26,241	-
47,070 National Science Foundation Div of Computer and Network Systems 20,02424 32,301			National Science Foundation Div of Computer and Network Systems		2106933		-
47,070		47.070	National Science Foundation Div of Computer and Network Systems		2112471	1,158,939	601,128
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47.070		47.070	National Science Foundation Div of Computer and Network Systems		2042644	32,391	-
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		47.070	National Science Foundation Div of Information and Intelligent Systems		1845122	135,504	-

Assistance Li Number	· ·	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developm	ent Cluster —				
	rom the following agencies				
47.070	National Science Foundation Div of Information and Intelligent Systems		1855501	46,255	-
47.070	National Science Foundation Div of Information and Intelligent Systems		1901360	24,962	-
47.070	National Science Foundation Div of Information and Intelligent Systems		1910356	155,504	-
47.070	National Science Foundation Div of Information and Intelligent Systems		1942980	17,402	-
47.070	National Science Foundation Div of Information and Intelligent Systems		1955764	135,280	32,185
47.070	National Science Foundation Div of Information and Intelligent Systems		2008043	140,508	-
47.070	National Science Foundation Div of Information and Intelligent Systems		2014506	292,682	-
47.070	National Science Foundation Div of Information and Intelligent Systems		2024588	149,436	9,204
47.070	COVID National Science Foundation Div of Information and Intelligent Systems		2145625	7,064	-
47.070	National Science Foundation Div of Information and Intelligent Systems		2104729	90,031	-
47.070	National Science Foundation Div of Information and Intelligent Systems		2107077	53,326	-
47.070	National Science Foundation Div of Information and Intelligent Systems		2133650	12,076	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		1550223	3,901	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		1829717	90,753	52,422
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		1835725	733,498	193,961
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		1931537	266,932	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		1940168	138,543	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		1945347	91,962	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2003747	70,229	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2005012	168,714	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2007991	102,915	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2018912	340,558	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2018627	584,230	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2118737	65,384	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2112606	1,187,901	578,570
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2126199	99,999	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2118250	88,670	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure		2118240	583,532	234,477
47.070	NSF Division of Industrial Innovation and Partnerships		1539961	308	· -
47.070	National Science Foundation Directorate for Computer & Info Sciences & Eng		2132798	84,905	-
47.074	National Science Foundation		1751113	119,908	-
47.074	National Science Foundation Directorate for Biological Sciences		1661029	10,514	-
47.074	National Science Foundation Directorate for Biological Sciences		1944324	148,795	-
47.074	National Science Foundation Directorate for Biological Sciences		1945971	49,790	-
47.074	National Science Foundation Div of Biological Infrastructure		1756439	59,764	-
47.074	National Science Foundation Div of Biological Infrastructure		1759874	354,304	138,430
47.074	National Science Foundation Div of Biological Infrastructure		1910623	151,331	-
47.074	National Science Foundation Div of Biological Infrastructure		1928379	125,852	-
47.074	National Science Foundation Div of Biological Infrastructure		1935913	198,007	-
47.074	National Science Foundation Div of Biological Infrastructure		1950769	105,382	-
47.074	National Science Foundation Div of Biological Infrastructure		2018939	12,151	17,245
47.074	National Science Foundation Div of Biological Infrastructure		2021932	33,538	-
47.074	National Science Foundation Div of Biological Infrastructure		2022070	2,457,720	1,834,468
47.074	National Science Foundation Div of Biological Infrastructure		2035537	5,152	-
47.074	National Science Foundation Div of Biological Infrastructure		2122274	149,013	-
47.074	National Science Foundation Div of Environmental Biology		1253197	,	

Research and Development Custom		Assistance Lis Number	sting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
47.074 National Science Foundation Div of Environmental Biology 1638872 127,450 - 47.074 National Science Foundation Div of Environmental Biology 1638899 220,214 55,298 47.074 National Science Foundation Div of Environmental Biology 1638399 0,368 - 47.074 National Science Foundation Div of Environmental Biology 1638399 0,368 - 47.074 National Science Foundation Div of Environmental Biology 1938399 0,368 - 47.074 National Science Foundation Div of Environmental Biology 1938399 0,368 - 47.074 National Science Foundation Div of Environmental Biology 1938399 0,346 - 47.074 National Science Foundation Div of Environmental Biology 1938399 0,346 - 47.074 National Science Foundation Div of Environmental Biology 2011439 0,346 - 47.074 National Science Foundation Div of Environmental Biology 2011439 0,3760 - 47.074 National Science Foundation Div of Environmental Biology 210999 2,10999 0,377 - 47.074 National Science Foundation Div of Environmental Biology 10,377 - 47.074 National Science Foundation Div of Interpretational Biology 10,377 - 47.074 National Science Foundation Div of Interpretation Biology 10,377 - 47.074 National Science Foundation Div of Interpretation Biology 10,377 - 47.074 National Science Foundation Div of Interpretation Biology 10,377 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional Biology 10,378 - 47.074 National Science Foundation Div of Integration Cognitional		•					
47.074	Fund	s received directly fro	om the following agencies				
4 7074 National Science Foundation Div of Environmental Biology 1831919 80.412		47.074	National Science Foundation Div of Environmental Biology		1638872	127,430	-
4 7074 National Scenere Foundation Div of Environmental Biology 1938205 10,083 - 10,		47.074	•		1638999		55,296
4.7074 National Science Foundation Div of Environmental Biology 1919099 61,086 - 4.7074 National Science Foundation Div of Environmental Biology 1919099 61,086 - 4.7074 National Science Foundation Div of Environmental Biology 2010199 101,163 - 4.7074 National Science Foundation Div of Environmental Biology 2010199 2017439 25,790 - 4.7074 National Science Foundation Div of Environmental Biology 21206699 22,091 - 4.7074 National Science Foundation Div of Environmental Biology 21206699 22,091 - 4.7074 National Science Foundation Div of Environmental Biology 11407009 38 - 4.7074 National Science Foundation Div of Environmental Biology 11407009 38 - 4.7074 National Science Foundation Div of Infragrative Organization Biology 11407009 38 - 4.7074 National Science Foundation Div of Infragrative Organization Biology 1140700 38 - 4.7074 National Science Foundation Div of Infragrative Organization Biology 1140700 38 - 4.7074 National Science Foundation Div of Infragrative Organization Biology 1140700 38 - 4.7074 National Science Foundation Div of Infragrative Organization Biology 1140700 38 - 4.7074 National Science Foundation Div of Infragrative Organization Biology 1140700 39, 30, 30, 30, 30, 30, 30, 30, 30, 30, 30		47.074	National Science Foundation Div of Environmental Biology		1831319	80,412	-
4.7074 National Science Foundation Div of Environmental Biology 1915809 81,3445		47.074	National Science Foundation Div of Environmental Biology		1838340	9,388	-
47.074 National Science Foundation Div of Environmental Biology 2016189 10.1,183 - 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.		47.074	National Science Foundation Div of Environmental Biology		1839205	10,903	-
47,074 National Solame Foundation Div of Environmental Biology 2016189 10.1.03 2.5.700 - 4.00000 3.000000 3.000000 3.0000000 3.0000000000		47.074	National Science Foundation Div of Environmental Biology		1915909	61,086	-
47.074 National Science Foundation Dw of Environmental Biology 21,0999 22,091 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 14,57009 3.8 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 15,57836 29,004 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 15,57836 29,004 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 15,57836 29,004 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 15,95786 39,895 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 15,95786 39,895 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 15,95786 39,895 - 9, 47,074 National Science Foundation Dw of Integrative Organismal Biology 175,9318 51,403 47,074 National Science Foundation Dw of Integrative Organismal Biology 175,9318 51,403 47,074 National Science Foundation Dw of Integrative Organismal Biology 123,094 214,575 47,074 National Science Foundation Dw of Integrative Organismal Biology 123,094 214,575 47,074 National Science Foundation Dw of Integrative Organismal Biology 125,0950 20,981 53,712 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9826 20,982 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9849 20,992 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9849 20,992 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9849 20,992 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9849 20,992 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9849 20,992 47,074 National Science Foundation Dw of Integrative Organismal Biology 20,9849 20,992 20,993 20,994 20,994 20,994 20,994 20,994 20,994 20,994 20,994 20,994 20,9		47.074	National Science Foundation Div of Environmental Biology		1926598	93,445	-
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47.074		47.074	National Science Foundation Div of Environmental Biology		2017439	25,790	-
47.074		47.074	National Science Foundation Div of Environmental Biology		2120969	22,091	-
47.074		47.074	National Science Foundation Div of Integrative Organismal Biology		1457009	38	-
47.074 National Science Foundation Div of Integrative Organisma Blokogy 1656542 97.450 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 1658786 39.585 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 1758318 51.03 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 1758912 71.436 24.276 47.074 National Science Foundation Div of Integrative Organisma Blokogy 1820094 214.575 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 1855599 228.813 5.712 47.074 National Science Foundation Div of Integrative Organisma Blokogy 2015928 240.592 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 2039499 20.929 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 2039499 20.929 - 47.074 National Science Foundation Div of Integrative Organisma Blokogy 2118320 26.5185 - 47.074 National Science Foundation Div of Molecular & Cellular B		47.074	National Science Foundation Div of Integrative Organismal Biology		1546781	95,023	-
47.074		47.074	National Science Foundation Div of Integrative Organismal Biology		1557836	26,904	-
47 07.4 National Science Foundation Div of Integrative Organismal Biology 1856786 39,585 - 47 074 National Science Foundation Div of Integrative Organismal Biology 1755318 51,403 - 47 074 National Science Foundation Div of Integrative Organismal Biology 1923994 214,575 - 47 074 National Science Foundation Div of Integrative Organismal Biology 1953909 229,813 3,712 47 074 National Science Foundation Div of Integrative Organismal Biology 2015924 40,592 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2035041 50,845 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2038949 20,929 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2121330 265,185 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2127521 74,985 - 47 074 National Science Foundation Div of Molecular & Cellular Biosciences 161605 87,800 - 47 074 National Science Foundation Div of Molecular & Cel		47.074	National Science Foundation Div of Integrative Organismal Biology		1656542	97,450	-
47.074		47.074	National Science Foundation Div of Integrative Organismal Biology		1656784	103,151	-
47 074 National Science Foundation Div of Integrative Organismal Biology 1758912 214,575 47 074 National Science Foundation Div of Integrative Organismal Biology 1953509 229,813 53,712 47 074 National Science Foundation Div of Integrative Organismal Biology 2015928 240,592 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2035041 50,845 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2035041 50,845 - 47 074 National Science Foundation Div of Integrative Organismal Biology 2141330 265,185 - 47 074 National Science Foundation Div of Integrative Organismal Biology 217521 74,955 - 47 074 National Science Foundation Div of Integrative Organismal Biology 217521 74,955 - 47 074 National Science Foundation Div of Molecular Biosciences 161605 87,800 - 47 074 National Science Foundation Div of Molecular & Cellular Biosciences 1715074 146,454 - 47 074 National Science Foundation Div of Molecular & Cellular Biosciences		47.074	National Science Foundation Div of Integrative Organismal Biology		1656786	39,585	-
47,074 National Science Foundation Div of Integrative Organismal Biology 192,3094 214,575 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2015928 22,9813 53,712 47,074 National Science Foundation Div of Integrative Organismal Biology 2035041 50,845 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2035041 50,845 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2039489 20,929 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2141330 285,185 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2127521 74,955 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1616105 87,800 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1715174 146,454 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1715327 62,569 - 47,074 National Science Foundation Div of Molecula		47.074	National Science Foundation Div of Integrative Organismal Biology		1755318	51,403	-
47.074 National Science Foundation Div of Integrative Organismal Biology 20,892 29,813 53,712 47.074 National Science Foundation Div of Integrative Organismal Biology 2015928 240,592 - 47.074 National Science Foundation Div of Integrative Organismal Biology 2036499 20,929 - 47.074 National Science Foundation Div of Integrative Organismal Biology 2141330 265,185 - 47.074 National Science Foundation Div of Integrative Organismal Biology 2127521 74,955 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1618501 62,306 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1618105 87,800 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715374 146,654 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715375 161,066 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715305 92,150 - 47.074 National Science Foundation Div of Molecu		47.074	National Science Foundation Div of Integrative Organismal Biology		1758912	71,436	24,276
47.074 National Science Foundation Div of Integrative Organismal Biology 2015928 240,592 - 47.074 National Science Foundation Div of Integrative Organismal Biology 2039489 20,929 - 47.074 National Science Foundation Div of Integrative Organismal Biology 2141330 265,185 - 47.074 National Science Foundation Div of Integrative Organismal Biology 2147521 74,955 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1613501 62,306 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1613501 62,306 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1616105 87,800 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715321 62,569 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715521 62,569 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715505 92,150 - 47.074 National Science Foundation Div of Molecular		47.074	National Science Foundation Div of Integrative Organismal Biology		1923094	214,575	-
47,074 National Science Foundation Div of Integrative Organismal Biology 2035041 50,845 - 47,074 National Science Foundation Div of Integrative Organismal Biology 209409 20,929 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2141330 265,185 - 47,074 National Science Foundation Div of Integrative Organismal Biology 2127521 74,955 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1618501 82,306 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1616105 87,800 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1715321 62,569 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1715375 161,066 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1715505 92,150 - 47,074 National Science Foundation Div of Molecular & Cellular Biosciences 1814936 120,392 - 47,074 National Science Foundation Div of Molecular		47.074	National Science Foundation Div of Integrative Organismal Biology		1953509	229,813	53,712
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47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715174 146,454 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715321 62,569 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715375 161,066 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715505 92,150 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1814936 120,392 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1814936 120,392 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1814935 330,905 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2023348 228,393 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2029502 247,907 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 20046863 153,573 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2103637 266,319		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1613501	62,306	-
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715321 62,569 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715375 161,066 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715505 92,150 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1814936 120,392 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1817835 330,905 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1906060 209,709 81,904 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2023348 28,393 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2029502 247,907 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2046863 153,573 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2202033 2,66,319 - 47.075 National Science Foundation Div of Molecular & Cellular Biosciences 1739909 324,761		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1616105	87,800	-
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715375 161,066 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1715505 92,150 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1814936 120,392 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1817835 330,905 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1906060 209,709 81,904 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2023348 228,393 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2029502 247,907 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2046863 153,573 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2103637 266,319 - 47.075 National Science Foundation Div of Molecular & Cellular Biosciences 2202203 2,836 - 47.075 National Science Foundation Div Social, Behavioral & Economic Sciences 1739909 324,761		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1715174	146,454	-
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47.074National Science Foundation Div of Molecular & Cellular Biosciences1817835330,905-47.074National Science Foundation Div of Molecular & Cellular Biosciences1906060209,70981,90447.074National Science Foundation Div of Molecular & Cellular Biosciences2023348228,393-47.074National Science Foundation Div of Molecular & Cellular Biosciences2029502247,907-47.074National Science Foundation Div of Molecular & Cellular Biosciences2046863153,573-47.074National Science Foundation Div of Molecular & Cellular Biosciences2103637266,319-47.074National Science Foundation Div of Molecular & Cellular Biosciences22022032,836-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences1739909324,761-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences191725643,809-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences1921523116,259-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences1949379353-47.075National Science Foundation Dir Social, Behavioral & Cognitive Sciences145267413,717-47.075National Science Foundation Div of Behavioral & Cognitive Sciences1617185196,77884,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1715505	92,150	-
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 1906060 209,709 81,904 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2023348 228,393 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2029502 247,907 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2046863 153,573 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2103637 266,319 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2202203 2,836 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1739909 324,761 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 </td <td></td> <td>47.074</td> <td>National Science Foundation Div of Molecular & Cellular Biosciences</td> <td></td> <td>1814936</td> <td>120,392</td> <td>-</td>		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1814936	120,392	-
47.074National Science Foundation Div of Molecular & Cellular Biosciences2023348228,393-47.074National Science Foundation Div of Molecular & Cellular Biosciences2029502247,907-47.074National Science Foundation Div of Molecular & Cellular Biosciences2046863153,573-47.074National Science Foundation Div of Molecular & Cellular Biosciences2103637266,319-47.074National Science Foundation Div of Molecular & Cellular Biosciences2202032,836-47.075National Science Foundation Div Social, Behavioral & Economic Sciences1739909324,761-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences191725643,809-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences1921523116,259-47.075National Science Foundation Dir Social, Behavioral & Economic Sciences1949379353-47.075National Science Foundation Div of Behavioral & Cognitive Sciences145267413,717-47.075National Science Foundation Div of Behavioral & Cognitive Sciences1617185196,77884,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1817835	330,905	-
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2029502 247,907 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2046863 153,573 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2103637 266,319 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2202203 2,836 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1739909 324,761 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 145.075 National Science Foundation Div of Behavioral & Cognitive Sciences 145.075 National Science Foundation Div of Behavioral & Cognitive Sciences 145.075 National Science Foundation Div of Behavioral & Cognitive Sciences 145.075 National Science Foundation Div of Behavioral & Cognitive Sciences 145.075 National Science Foundation Div of Behavioral & Cognitive Sciences 145.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		1906060	209,709	81,904
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2046863 153,573 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2103637 266,319 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2202203 2,836 - 47.075 National Science Foundation Div Social, Behavioral & Economic Sciences 1739909 324,761 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		2023348	228,393	-
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2103637 266,319 - 47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2202203 2,836 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 173909 324,761 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		2029502	247,907	-
47.074 National Science Foundation Div of Molecular & Cellular Biosciences 2202203 2,836 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 173999 324,761 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		2046863	153,573	-
47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1739909 324,761 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		2103637	266,319	-
47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1917256 43,809 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.074	National Science Foundation Div of Molecular & Cellular Biosciences		2202203	2,836	-
47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1921523 116,259 - 47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.075	National Science Foundation Dir Social, Behavioral & Economic Sciences		1739909	324,761	-
47.075 National Science Foundation Dir Social, Behavioral & Economic Sciences 1949379 353 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.075	National Science Foundation Dir Social, Behavioral & Economic Sciences		1917256	43,809	-
47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1452674 13,717 - 47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.075	National Science Foundation Dir Social, Behavioral & Economic Sciences		1921523	116,259	-
47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585		47.075	National Science Foundation Dir Social, Behavioral & Economic Sciences		1949379	353	-
47.075 National Science Foundation Div of Behavioral & Cognitive Sciences 1617185 196,778 84,585							-
· · · · · · · · · · · · · · · · · · ·		47.075	National Science Foundation Div of Behavioral & Cognitive Sciences		1617185		84,585
		47.075	National Science Foundation Div of Behavioral & Cognitive Sciences		1655014	664	-

Research and Development Funds received directly from 47.075 47.075				
Funds received directly from 47.075 47.075	the following agencies			
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences			
		1729482	109,501	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1818597	76,108	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1823381	39,784	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1843454	56,183	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1845107	75,236	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1847603	194,131	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1848939	71,338	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1849418	133,509	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1921592	66,054	54,825
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1926528	27,867	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1941662	89,453	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1942841	18,298	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	1945008	40,755	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	2003248	9,618	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	2017816	11,447	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	2021038	200,803	-
47.075	COVID National Science Foundation Div of Behavioral & Cognitive Sciences	2127062	215	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	2117433	86,618	_
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	2147716	916	-
47.075	National Science Foundation Div of Social & Economic Sciences	1554837	194,361	-
47.075	National Science Foundation Div of Social & Economic Sciences	1630288	3.959	_
47.075	National Science Foundation Div of Social & Economic Sciences	1728865	17,616	-
47.075	National Science Foundation Div of Social & Economic Sciences	1734294	5,080	-
47.075	National Science Foundation Div of Social & Economic Sciences	1823316	24,649	_
47.075	National Science Foundation Div of Social & Economic Sciences	1824332	7,856	_
47.075	National Science Foundation Div of Social & Economic Sciences	1919390	2,395	_
47.075	National Science Foundation Div of Social & Economic Sciences	1949037	100,584	_
47.075	National Science Foundation Div of Social & Economic Sciences	2018152	149,619	_
47.075	National Science Foundation Div of Social & Economic Sciences	2018704	67,335	_
47.075	COVID National Science Foundation Div of Social & Economic Sciences	2029043	(9,278)	_
47.075	National Science Foundation Div of Social & Economic Sciences	2029857	26,629	_
47.075	National Science Foundation Div of Social & Economic Sciences	2049476	44,642	_
47.075	National Science Foundation Div of Social & Economic Sciences	1919450	2,608	
47.075	National Science Foundation Div of Social & Economic Sciences	2116856	157,822	
47.075	National Science Foundation Div of Social & Economic Sciences	2049749	87,988	
47.075	National Science Foundation Div of Social & Economic Sciences	2148982	5,158	
47.075	National Science Foundation SBE Office of Multidisciplinary Activities	1738502	206,130	64,054
47.075	National Science Foundation SBE Office of Multidisciplinary Activities	1757020	51,004	04,004
47.075	National Science Foundation SBE Office of Multidisciplinary Activities	2146474	68,067	-
47.075 47.075	National Science Foundation SbE Office of Multidisciplinary Activities National Science Foundation Div of Behavioral & Cognitive Sciences	1918324	23,695	-
47.075 47.075	COVID National Science Foundation Div of Behavioral & Cognitive Sciences	1918324	23,695	-
47.075 47.075	COVID National Science Foundation Div of Behavioral & Cognitive Sciences COVID National Science Foundation Div of Behavioral & Cognitive Sciences	2116570	13,561	-
47.075 47.076	National Science Foundation Div of Benavioral & Cognitive Sciences National Science Foundation Directorate for Education & Human Resources	1811119	321,327	- 55,451
47.076 47.076	National Science Foundation Directorate for Education & Human Resources National Science Foundation Div of Graduate Educ & Res Development	1735027	51,327 51,896	55,451
47.076 47.076	National Science Foundation Div of Graduate Educ & Res Development National Science Foundation Div of Graduate Educ & Res Development	1735027	252,371	-
47.076 47.076	National Science Foundation Div of Graduate Educ & Res Development National Science Foundation Div of Graduate Educ & Res Development	1761158	252,371 11,711	-

Assistance List Number	ting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen					
Funds received directly from	m the following agencies				
47.076	National Science Foundation Div of Graduate Educ & Res Development		1840280	1,250,256	-
47.076	National Science Foundation Div of Graduate Educ & Res Development		1922666	522,400	-
47.076	National Science Foundation Div of Graduate Educ & Res Development		2100234	182,745	-
47.076	National Science Foundation Div of Human Resource Development		1817314	734,525	269,768
47.076	National Science Foundation Div of Human Resource Development		1920421	171,070	-
47.076	National Science Foundation Div of Human Resource Development		2032668	72,979	-
47.076	National Science Foundation Div of Undergraduate Education		1821866	64,021	-
47.076	National Science Foundation Div of Undergraduate Education		1914709	161,744	-
47.076	National Science Foundation Div of Undergraduate Education		1915438	64,946	-
47.076	National Science Foundation Div of Undergraduate Education		2000472	328,673	71,810
47.076	National Science Foundation Div of Undergraduate Education		2130281	39,491	-
47.076	NSF Division of Research on Learning in Formal and Informal Settings		1712618	20,586	(77)
47.076	NSF Division of Research on Learning in Formal and Informal Settings		1713537	11,248	-
47.076	NSF Division of Research on Learning in Formal and Informal Settings		1906929	147,608	-
47.076	NSF Division of Research on Learning in Formal and Informal Settings		1943208	139,016	-
47.076	NSF Division of Research on Learning in Formal and Informal Settings		2016580	11,347	-
47.078	National Science Foundation Division of Polar Programs		1838401	66,041	-
47.078	National Science Foundation Division of Polar Programs		2205398	1,033	-
47.078	National Science Foundation Division of Polar Programs		2224825	7,144	-
47.078	COVID National Science Foundation Division of Polar Programs		2127633	13,941	-
47.079	National Science Foundation Directorate for Engineering		1658243	12,408	-
47.083	NSF Office of Integrative Activities		2040581	411,922	249,286
47.083	NSF Office of Integrative Activities		2027185	6,350	-
47.083	NSF Office of Integrative Activities		2137806	274,175	84,904
47.083	NSF Office of Integrative Activities		2134832	270,979	144,160
47.RD	National Science Foundation Div of Behavioral & Cognitive Sciences		2038249	193,550	-
47.RD	National Science Foundation Div of Materials Research		2050332	244,246	-
	Total National Science Foundation Direct Awards			57,323,185	6,715,141
Small Business Administ	tration				
59.065	Small Business Administration		Award dated 9/16/2021	29,364	-
	Total Small Business Administration			29,364	-
Veterans Affairs					
64.RD	Ralph H. Johnson VA Medical Center		award dated 9/4/18	5,180	_
64.RD	VA Salt Lake City Health Care System		IPA dated 4/9/19	(109)	_
64.RD	Verterans Affairs New Jersey Health Care System		36C24519C0224	172	-
64.RD	Veterans Affairs New Jersey Health Care System		Agreement dated 9/15/20	32,095	-
64.RD	Veterans Affairs New Jersey Health Care System		36C24522C0051	166,213	-
64.RD	Veterans Affairs New Jersey Health Care System		Obligation No. 561-C26082	26,411	-
64.RD	Veterans Affairs New Jersey Health Care System		Obligation No. 561-C26080	29,257	-
64.RD	Veterans Affairs New Jersey Health Care System		Obligation No. 561-C26081	28,795	-
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Assi	sistance Listing Number	Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and D		uster — e following agencies				
		Total Veterans Affairs Direct Awards			288,014	_
		Total Votoralio Alfalio Biloot Awardo			200,014	
Environmental	-	•				
66.5		Environmental Protection Agency		83926901	122,731	-
66.5	509	Environmental Protection Agency		84024101	115,401	80,117
		Total Environmental Protection Agency Direct Awards			238,132	80,117
Nuclear Regula	atory Commiss	sion				
77.0	-	Nuclear Regulatory Commission		31310018M0023	146,966	-
		Total Nuclear Regulatory Commission Direct Awards			146,966	-
Department of	Enoray					
81.0		US Department of Energy		DE-FG02-04ER15614	346.618	_
81.0		US Department of Energy		DE-FG02-07ER15896	303,498	_
81.0		US Department of Energy		DE-FG02-07ER46423	47,322	_
81.0		US Department of Energy		DE-FG02-07ER46427	240,580	_
81.0		US Department of Energy		DE-FG02-91ER20042	62,230	_
81.0		US Department of Energy		DE-SC0001258	199,827	_
81.0		US Department of Energy		DE-SC0001304	212,611	_
81.0		US Department of Energy		DE-SC0004286	484,859	-
81.0		US Department of Energy		DE-SC0006878	100,795	_
81.0		US Department of Energy		DE-SC0008850	184,960	-
81.0		US Department of Energy		DE-SC0011721	126,873	-
81.0		US Department of Energy		DE-SC0011726	1,925,676	_
81.0		US Department of Energy		DE-SC0012481	8,209	-
81.0	049	US Department of Energy		DE-SC0012483	87,761	-
81.0	049	US Department of Energy		DE-SC0014051	24,892	-
81.0	049	US Department of Energy		DE-SC0014209	208,927	-
81.0	049	US Department of Energy		DE-SC0014562	39,981	-
81.0	049	US Department of Energy		DE-SC0016044	323	-
81.0	049	US Department of Energy		DE-SC0016379	475,100	53,060
81.0	.049	US Department of Energy		DE-SC0016381	202,554	-
81.0	.049	US Department of Energy		DE-SC0016440	73,054	68,303
81.0	049	US Department of Energy		DE-SC0016584	622,468	250,240
81.0	049	US Department of Energy		DE-SC0017270	358,531	-
81.0	049	US Department of Energy		DE-SC0018020	182,410	-
81.0		US Department of Energy		DE-SC0019115	1,350	-
81.0		US Department of Energy		DE-SC0019179	142,606	-
81.0		US Department of Energy		DE-SC0019283	1,162	-
81.0		US Department of Energy		DE-SC0019338	182,460	90,959
81.0		US Department of Energy		DE-SC0019340	92,451	29,290
81.0		US Department of Energy		DE-SC0020173	750,359	188,855
81.0		US Department of Energy		DE-SC0020187	288,507	-
81.0	U49 I	US Department of Energy		DE-SC0020233	718,737	418,000

Penerant Description Des	Assistance Li	sting		Additional Award	Federal	Expenditures
Bit Color Description	Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Bit Color Description						
81.049 US Department of Energy DE-SC0002042 109.405 - 1 81.049 US Department of Energy DE-SC0002043 176, 100 - 0 81.049 US Department of Energy DE-SC0002043 176, 100 - 0 81.049 US Department of Energy DE-SC0002069 245, 200 - 1 81.049 US Department of Energy DE-SC0002069 245, 200 - 1 81.049 US Department of Energy DE-SC0002067 100, 200 - 1 81.049 US Department of Energy DE-SC0002067 227, 701 178, 211 81.049 US Department of Energy DE-SC0002067 227, 701 178, 211 81.049 US Department of Energy DE-SC0002067 227, 701 178, 211 81.049 US Department of Energy DE-SC0002067 227, 701 178, 211 81.049 US Department of Energy DE-SC0002067 227, 701 178, 211 81.049 US Department of Energy DE-SC0002069 100, 206 - 1 81.049 US Department of Energy DE-SC0002069 100, 206 - 1 81.049 US Department of Energy DE-SC0002060 100, 206 - 1 81.049 US Department of Energy DE-SC0002060 100, 206 - 1 81.049 US Department of Energy DE-SC0002060 100, 206 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.049 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Energy DE-SC0002060 100, 705 - 1 81.040 US Department of Ene	•					
B 1049 US Department of Energy DE-SCO020043 176, 100 - B 1049 US Department of Energy DE-SCO020061 243, 302 - B 1049 US Department of Energy DE-SCO020061 243, 302 - B 1049 US Department of Energy DE-SCO020061 243, 302 - B 1049 US Department of Energy DE-SCO020077 165, 510 - B 1049 US Department of Energy DE-SCO020077 165, 510 - B 1049 US Department of Energy DE-SCO020077 165, 510 - B 1049 US Department of Energy DE-SCO020077 167, 77, 77, 77, 77, 77, 77, 77, 77, 77,	Funds received directly fr	om the following agencies				
B 1049 US Department of Energy DE-SCO020043 176, 100 - B 1049 US Department of Energy DE-SCO020061 243, 302 - B 1049 US Department of Energy DE-SCO020061 243, 302 - B 1049 US Department of Energy DE-SCO020061 243, 302 - B 1049 US Department of Energy DE-SCO020077 165, 510 - B 1049 US Department of Energy DE-SCO020077 165, 510 - B 1049 US Department of Energy DE-SCO020077 165, 510 - B 1049 US Department of Energy DE-SCO020077 167, 77, 77, 77, 77, 77, 77, 77, 77, 77,	81.049	US Department of Energy		DE-SC0020242	109.405	_
B 1049 US Department of Energy DE-SO0020053 61,461 -						-
81 (H) US Department of Energy DE-SO0020051 243,002 - 81 (H) US Department of Energy DE-SO0020077 165,610 - 81 (H) US Department of Energy DE-SO0020077 165,610 - 81 (H) US Department of Energy DE-SO0021072 27,775 76,211 81 (H) US Department of Energy DE-SO0021072 27,775 - 81 (H) US Department of Energy DE-SO0021080 102,006 - 81 (H) US Department of Energy DE-SO0021231 606,008 - 81 (H) US Department of Energy DE-SO0021231 606,008 - 81 (H) US Department of Energy DE-SO0021231 606,008 - 81 (H) US Department of Energy DE-SO00212097 149,006 - 81 (H) US Department of Energy DE-SO0022007 149,006 - 81 (H) US Department of Energy DE-SO0022007 149,006 - 81 (H) US Department of Energy DE-SO0022007 167,751 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,726 - 81 (H) US Department of Energy DE-SO0022009 109,736 - 81 (H) US Department of Energy DE-SO0022009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 - 81 (H) US Department of Energy DE-SO003009 109,736 -						_
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81.049 US Department of Emergy DE SC00220977 165.510 - 81.049 US Department of Emergy DE SC00221072 27.773 - 81.049 US Department of Emergy DE SC00221082 27.773 - 81.049 US Department of Emergy DE SC00221380 102.086 - 81.049 US Department of Emergy DE SC00221380 102.086 - 81.049 US Department of Emergy DE SC00221380 102.086 - 81.049 US Department of Emergy DE SC0022097 149.005 - 81.049 US Department of Emergy DE SC0022097 149.005 - 81.049 US Department of Emergy DE SC0022097 149.005 - 81.049 US Department of Emergy DE SC0022092 165.751 - 81.049 US Department of Emergy DE SC0022092 165.751 - 81.049 US Department of Emergy DE SC0022093 177.700 - 81.049 US Department of Emergy DE SC0022093 177.700 - 81.049 US Department of Emergy DE SC0022093 177.700 - 81.049 US Department of Emergy DE SC0022093 177.700 - 81.049 US Department of Emergy DE SC0022093 177.700 - 81.049 US Department of Emergy DE SC0022093 177.700 - 81.050 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0022093 177.700 - 81.052 US Department of Emergy DE SC0022093 177.700 - 81.056 US Department of Emergy DE SC0022093 177.700 - 81.057 US Department of Emergy DE SC0022093 177.700 - 81.058 US Department of Emergy DE SC0022093 177.700 - 81.059 US Department of Emergy DE SC0022093 177.700 - 81.050 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0022093 177.700 - 81.051 US Department of Emergy DE SC0020093 177.700		, , , , , , , , , , , , , , , , , , , ,				-
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81.049 US Department of Emergy DE-SC0021330 69.688 81.049 US Department of Emergy DE-SC0022967 121.947 - 81.049 US Department of Emergy DE-SC0022969 119.565 - 81.049 US Department of Emergy DE-SC0022089 109.735 - 81.049 US Department of Emergy DE-SC0022089 109.735 - 81.049 US Department of Emergy DE-SC0022084 117.780 - 81.049 US Department of Emergy DE-SC0022081 100.589 4.654 81.049 US Department of Emergy DE-SC0022081 100.589 4.654 81.049 US Department of Emergy DE-SC0022081 100.589 4.654 81.057 National Energy Technology Laboratory DE-EC0020767 54.721 - 81.057 VIS Department of Emergy DE-EC0000779 277.066 - 81.058 US Department of Emergy DE-EC0000789 277.066 - 81.059 US Department of Emergy DE-EC0000789 17.936 -<	81.049	US Department of Energy		DE-SC0021067	297,701	178,211
81.049 US Department of Emergy DE-SC0021380 102.086 81.049 US Department of Emergy DE-SC0022087 149.055 - 81.049 US Department of Emergy DE-SC0022089 109.755 - 81.049 US Department of Emergy DE-SC0022082 166.751 - 81.049 US Department of Emergy DE-SC0022083 178.340 - 81.049 US Department of Emergy DE-SC0022083 78.340 - 81.049 US Department of Emergy DE-SC0022083 78.340 - 81.049 US Department of Emergy DE-SC0022083 78.740 - 81.057 National Energy Technology Laboratory DE-EC0032087 78.721 - 81.068 National Energy Technology Laboratory DE-EE0007808 364.427 - 81.068 National Energy Technology Laboratory DE-EE0007813 (7.935) - 81.069 US Department of Emergy DE-EE0007813 (7.935) - 81.069 US Department of Emergy DE-EE0007813 (7.935)	81.049	US Department of Energy		DE-SC0021192	27,573	-
81.049	81.049	US Department of Energy		DE-SC0021231	696,608	-
81.049	81.049	US Department of Energy		DE-SC0021360	102,086	-
B1.049	81.049	US Department of Energy		DE-SC0021961	121,947	-
10.49	81.049	US Department of Energy		DE-SC0022097	149,605	-
B.1.049	81.049	US Department of Energy		DE-SC0022099	109,735	-
81.049 US Department of Energy	81.049	US Department of Energy		DE-SC0022092	165,751	-
81.494	81.049	US Department of Energy		DE-SC0022094	117,780	-
1.049 US Department of Energy DE-SC0022043 76,719 1-	81.049	US Department of Energy		DE-SC0022093	78,340	-
81.057 National Energy Technology Laboratory DE-FE0032067 54,721 -1	81.049	US Department of Energy		DE-SC0022091	100,569	4,654
81.057	81.049	US Department of Energy		DE-SC0022043	76,719	-
81 086 National Energy Technology Laboratory DE-EE0008709 217,096 - 81 086 US Department of Energy DE-EE0008718 17,334 109,730 - 81 087 US Department of Energy DE-EE0007530 (199,718) - - 81 087 US Department of Energy DE-EE0007539 (1,361) 68,037 (1,361) 68,037 81,087 US Department of Energy DE-EE0008755 225,037 83,935 81,087 US Department of Energy DE-EE0008755 225,037 83,935 81,087 US Department of Energy DE-EE0008755 225,037 83,935 81,087 US Department of Energy DE-EE0009283 301,089 120,511 9.00	81.057	National Energy Technology Laboratory		DE-FE0032067	54,721	-
81.086 US Department of Energy DE-EE0007813 (7,935) - 81.086 US Department of Energy DE-EE0000780 (199,748) 109,730 81.087 US Department of Energy DE-EE00007539 (1,361) 68,037 81.087 US Department of Energy DE-EE00007539 (1,361) 68,037 81.087 US Department of Energy DE-EE00008742 32,140 - 81.087 US Department of Energy DE-EE0008755 225,037 83,935 81.087 US Department of Energy DE-EE0009283 301,869 120,511 81.089 US Department of Energy DE-EE0031276 (38,833) - 81.089 US Department of Energy DE-FE0031278 (38,833) - 81.089 US Department of Energy DE-FE0031731 690,324 - 81.089 US Department of Energy DE-FE0032076 181,095 35,641 81.089 US Department of Energy DE-RE00032076 181,095 35,641 81.121 US Department of Energy DE-NE00000110	81.057	US Department of Energy		DE-FE0031905	364,427	-
81.086 US Department of Energy DE-EE0008718 197,394 109,730 81.087 US Department of Energy (19,718) 6.037 81.087 US Department of Energy (1,361) 68,037 81.087 US Department of Energy DE-EE0008729 32,140 - 81.087 US Department of Energy DE-EE0008725 225,037 83,935 81.087 US Department of Energy DE-EE0009283 301,669 120,511 81.089 National Energy Technology Laboratory DE-EE0031566 (17,512) - 81.089 US Department of Energy DE-FE0031566 (17,512) - 81.089 US Department of Energy DE-FE0031783 38,833 - 81.089 US Department of Energy DE-FE0031781 690,324 - 81.089 US Department of Energy DE-FE0031731 690,324 - 81.089 US Department of Energy DE-FE0032076 181,095 35,641 81.099 US Department of Energy DE-NE0003783 104,134 - 81.121 US Department of Energy DE-NE00008710 40,311	81.086	National Energy Technology Laboratory		DE-EE0008709	217,096	-
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81.087 US Department of Energy 0E-EE0007539 (1,361) 68,037 81.087 US Department of Energy 0E-EE0008755 22,140 - 81.087 US Department of Energy 0E-EE0008755 225,037 83,935 81.087 US Department of Energy 0E-EE0009283 301,869 120,511 81.089 National Energy Technology Laboratory 0E-FE0031278 (38,833) - 81.089 US Department of Energy 0E-FE0031278 (38,833) - 81.089 US Department of Energy 0E-FE0031273 (69,324) - 81.089 US Department of Energy 0E-FE0031731 690,324 - 81.089 US Department of Energy 0E-FE0032076 181,095 35,641 81.099 US Department of Energy 0E-FE0032076 181,095 35,641 81.099 US Department of Energy 0E-FE0032076 181,095 35,641 81.121 US Department of Energy 0E-NE000376 17,883 - 81.121 US Department of Energy 0E-NE0000876 17,883 - 81.121 US Department of Energy </td <td>81.086</td> <td>US Department of Energy</td> <td></td> <td>DE-EE0008718</td> <td>197,394</td> <td>109,730</td>	81.086	US Department of Energy		DE-EE0008718	197,394	109,730
81.087 US Department of Energy DE-EE0008742 32,140 - 81.087 US Department of Energy DE-EE0009283 301,869 125,037 83,935 81.087 US Department of Energy DE-EE0009283 301,869 120,511 81.089 National Energy Technology Laboratory DE-FE0031566 (17,512) - 81.089 US Department of Energy 0B-FE0031278 (38,833) - 81.089 US Department of Energy DE-FE0031635 32,848 - 81.089 US Department of Energy DE-FE0031731 690,324 - 81.089 US Department of Energy DE-FE0032076 181,095 35,641 81.089 US Department of Energy DE-FE0032076 181,095 35,641 81.099 US Department of Energy DE-NE000378 19,676 66,967 81.121 US Department of Energy DE-NE0000810 71,883 - 81.121 US Department of Energy DE-NE0000810 71,883 - 81.121 US Department of Energy D	81.087	US Department of Energy		DE-EE0007530	(199,718)	-
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81.089 National Energy Technology Laboratory DE-FE0031566 (17,512) - 81.089 US Department of Energy DE-FE0031278 (38,833) - 81.089 US Department of Energy DE-FE0031635 32,848 - 81.089 US Department of Energy DE-FE0031731 690,324 - 81.089 US Department of Energy DE-FE0032076 181,095 35,641 81.089 US Department of Energy DE-NE0032078 104,134 - 81.121 US Department of Energy DE-NA0003878 104,134 - 81.121 US Department of Energy DE-NE0000810 71,883 - 81.121 US Department of Energy DE-NE0008710 40,301 - 81.121 US Department of Energy DE-NE0008765 118,984 555 81.121 US Department of Energy DE-NE0008766 77,872 43,778 81.121 US Department of Energy DE-NE0008811 131,880 66,582 81.121 US Department of Energy DE-NE0008881 299,958 191,297 81.121 US Department of Energy	81.087	US Department of Energy		DE-EE0008755	225,037	83,935
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81.121 US Department of Energy DE-NE0008986 292,355 99,858						
81.121 US Department of Energy DE-NE0009072 43,594 -						99,858
	81.121	US Department of Energy		DE-NE0009072	43,594	-

Assistance Lis Number	sting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developme	ent Cluster —				
Funds received directly fro	om the following agencies				
81.121	US Department of Energy		DE-NE0009147	23,700	-
81.121	US Department of Energy		DE-NE0009161	94,786	13,624
81.121	US Department of Energy		DE-NE0009168	91,867	-
81.135	Advanced Research Projects Agency-Energy		DE-AR0001036	586,118	170,903
81.135	Advanced Research Projects Agency-Energy		DE-AR0001110	521,700	162,075
81.135	Advanced Research Projects Agency-Energy		DE-AR0000794	764,826	219,883
81.135	Advanced Research Projects Agency-Energy		DE-AR0001512	297,577	32,380
	Total Department of Energy Direct Awards			17,621,385	2,812,561
Department of Education	n				
84.229A	US Department of Education		P229A180020	179,627	-
84.305A	Institute of Education Sciences		R305A160261	239,161	45,646
84.305A	Institute of Education Sciences		R305A160295	43,751	43,751
84.305A	Institute of Education Sciences		R305A190029	420,568	133,998
84.305A	Institute of Education Sciences		R305A190302	23,567	-
84.305A	Institute of Education Sciences		R305A200364	430,245	-
84.305A	US Department of Education		R305A180004	496,308	-
84.305B	Institute of Education Sciences		R305B200024	238,759	58,083
84.305N	Institute of Education Sciences		R305N160024	513,638	-
84.324A	Institute of Education Sciences		R324A200110	545,893	-
84.324A	Institute of Education Sciences		R324A210205	223,485	32,141
84.365Z	US Department of Education		T365Z170048	558,815	225,442
84.407A	US Department of Education		P407A150080	338,963	219,540
84.411B	US Department of Education		U411B190019	1,169,370	412,194
	Total Department of Education Direct Awards			5,422,150	1,170,795
Department of Health an	nd Human Services				
93.059	Health Resources and Services Administration		D87HP32138	18,558	-
93.077	National Cancer Institute		R01CA229082	242,676	82,393
93.077	National Cancer Institute		R01CA229306	250,492	-
93.077	National Cancer Institute		R01CA255563	322,574	11,179
93.077	National Heart, Lung, and Blood Institute		R21HL147401	140,228	=
93.077	National Institute on Drug Abuse		R21DA046333	12,437	-
93.077	National Institute on Drug Abuse		U01DA045537	444,748	155,832
93.086	Administration for Children and Families		90PR0015	85,885	-
93.087	Administration on Children, Youth and Families		90CU0083	295,259	208,215
93.103	Food and Drug Administration		U18FD006667	12,835	-
93.103	Food and Drug Administration		U18FD007232	41,006	-
93.103	Food and Drug Administration		UC2FD007229	1,206,258	279,972
93.110	Health Resources and Services Administration		T7324481	725,211	132,415
93.113	National Institute of Environmental Health Sciences		R01ES012991	29,282	-
93.113	National Institute of Environmental Health Sciences		R01ES028829	616,411	173,721
93.113	National Institute of Environmental Health Sciences		R01ES031378	693,473	386,637
93.113	National Institute of Environmental Health Sciences		R03ES029301	50,136	-

Assistance Listi Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen	t Cluster —				
Funds received directly from					
93.113	National Institute of Environmental Health Sciences		R01ES032026	288,876	-
93.121	National Institute of Dental and Craniofacial Research		F30DE029676	67,273	_
93.121	National Institute of Dental and Craniofacial Research		F31DE029409	37,413	-
93.121	National Institute of Dental and Craniofacial Research		R00DE027706	192,870	-
93.121	National Institute of Dental and Craniofacial Research		R01DE023731	(35)	-
93.121	National Institute of Dental and Craniofacial Research		R01DE025447	406,476	49
93.121	National Institute of Dental and Craniofacial Research		R01DE027639	509,007	-
93.121	National Institute of Dental and Craniofacial Research		R01DE027857	330,020	-
93.121	National Institute of Dental and Craniofacial Research		R01DE028297	468,588	-
93.121	National Institute of Dental and Craniofacial Research		R03DE026192	4,713	-
93.121	National Institute of Dental and Craniofacial Research		R03DE027492	22,545	-
93.121	National Institute of Dental and Craniofacial Research		R03DE028411	74,404	-
93.121	National Institute of Dental and Craniofacial Research		R03DE028632	(970)	-
93.121	National Institute of Dental and Craniofacial Research		R03DE029716	53,780	-
93.121	National Institute of Dental and Craniofacial Research		T32DE014320	218,319	44,274
93.121	National Institute of Dental and Craniofacial Research		F30DE030358	45,285	- -
93.121	National Institute of Dental and Craniofacial Research		R56DE030093	316,737	-
93.121	National Institute of Dental and Craniofacial Research		R01DE028565	53,414	-
93.137	Public Health Service		CPIMP181169	213,273	20,648
93.172	National Human Genome Research Institute		K99HG011367	20,389	- -
93.172	National Human Genome Research Institute		R01HG008759	256,076	-
93.172	National Human Genome Research Institute		R01HG010318	582,148	-
93.172	National Human Genome Research Institute		R01HG011469	253,572	-
93.173	National Institute on Deafness and Other Communication Disorders		F31DC017367	(4,705)	-
93.173	National Institute on Deafness and Other Communication Disorders		F32DC017076	(1,705)	-
93.173	National Institute on Deafness and Other Communication Disorders		F32DC019314	74,960	-
93.173	National Institute on Deafness and Other Communication Disorders		K23DC015539	135,123	_
93.173	National Institute on Deafness and Other Communication Disorders		PRELIMINARY AWARD	8,714	_
93.173	National Institute on Deafness and Other Communication Disorders		R01DC008581	160,651	83,900
93.173	National Institute on Deafness and Other Communication Disorders		R01DC012048	249,913	-
93.173	National Institute on Deafness and Other Communication Disorders		R01DC014498	140,346	7,683
93.173	National Institute on Deafness and Other Communication Disorders		R01DC014924	(428)	-
93.173	National Institute on Deafness and Other Communication Disorders		R01DC014956	306,759	191,439
93.173	National Institute on Deafness and Other Communication Disorders		R01DC015271	60,934	-
93.173	National Institute on Deafness and Other Communication Disorders		R01DC015521	94,987	_
93.173	National Institute on Deafness and Other Communication Disorders		R01DC016037	356,150	_
93.173	National Institute on Deafness and Other Communication Disorders		R01DC016038	240,468	20,249
93.173	National Institute on Deafness and Other Communication Disorders		R01DC016112	85,185	-
93.173	COVID National Institute on Deafness and Other Communication Disorders		R01DC016112	167,882	_
93.173	National Institute on Deafness and Other Communication Disorders		R01DC017711	395.691	82.614
93.173	National Institute on Deafness and Other Communication Disorders		R01DC017846	197,805	
93.173	National Institute on Deafness and Other Communication Disorders		R01DC017925	643,095	291,119
93.173	National Institute on Deafness and Other Communication Disorders		R01DC018009	747,933	
93.173	National Institute on Deafness and Other Communication Disorders		R13DC017921	4,787	-
93.173	National Institute on Deafness and Other Communication Disorders		R21DC016134	766	-
93.173	National Institute on Deafness and Other Communication Disorders		R21DC016972	27,248	24,313
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	Assistance Listin	-		Additional Award	Federal	Expenditures
	Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Researc	h and Development	t Cluster —				
		n the following agencies				
		. the renorming agention				
	93.173	National Institute on Deafness and Other Communication Disorders		R21DC016980	78,483	_
	93.173	National Institute on Deafness and Other Communication Disorders		R21DC017530	31,175	15,056
	93.173	National Institute on Deafness and Other Communication Disorders		R21DC018395	207,124	- -
	93.173	National Institute on Deafness and Other Communication Disorders		R21DC019458	84,718	-
	93.173	National Institute on Deafness and Other Communication Disorders		R56DC017458	23,157	16,662
	93.173	National Institute on Deafness and Other Communication Disorders		U01DC018920	724,548	527,642
	93.173	National Institute on Deafness and Other Communication Disorders		R01DC019088	298,700	-
	93.173	National Institute on Deafness and Other Communication Disorders		R56DC019093	170,086	-
	93.173	National Institute on Deafness and Other Communication Disorders		R21DC019382	74,401	-
	93.173	National Institute on Deafness and Other Communication Disorders		R01DC012760	154,313	110,443
	93.184	Centers for Disease Control and Prevention		NU27DD000015	17,653	10,011
	93.213	National Center for Complementary and Integrative Health		R61AT009867	217,733	193,920
	93.226	Agency for Healthcare Research and Quality		R01HS024958	283,765	-
	93.226	Agency for Healthcare Research and Quality		R01HS027200	509,932	35,925
	93.226	Agency for Healthcare Research and Quality		R18HS025915	358,200	24,566
	93.233	National Heart, Lung, and Blood Institute		UH3HL140144	933,012	440,109
	93.234	Administration for Community Living		90TBSG0045	35,286	-
	93.234	Administration for Community Living		90TBSG0063	107,563	-
	93.242	National Institute of Mental Health		K08MH112892	69,606	-
	93.242	National Institute of Mental Health		R01MH100144	1,364	886
	93.242	National Institute of Mental Health		R01MH117600	253,464	199,889
	93.242	National Institute of Mental Health		R01MH119670	655,179	-
	93.242	National Institute of Mental Health		R01MH126116	658,378	-
	93.242	National Institute of Mental Health		R21MH117482	68,864	-
	93.242	National Institute of Mental Health		R21MH117552	15,230	13,167
	93.242	National Institute of Mental Health		R21MH119090	128,783	11,615
	93.242	National Institute of Mental Health		R21MH119531	88,035	-
	93.242	National Institute of Mental Health		R21MH121744	99,202	-
	93.242	National Institute of Mental Health		R21MH122674	208,782	29,606
	93.242	National Institute of Mental Health		R56MH116670	220,917	-
	93.242	National Institute of Mental Health		R61MH125759	564,042	2,805
	93.242	National Institute of Mental Health		R01MH112758	643,046	82,859
	93.242	National Institute of Mental Health		R01MH124870	289,734	-
	93.242	National Institute of Mental Health		F30MH125524	26,243	-
	93.242	National Institute of Mental Health		K23MH112852	154,435	-
	93.242	National Institute of Mental Health		R01MH115917	117,228	-
	93.242	National Institute of Mental Health		U01MH128677	87,496	-
	93.242	National Institute of Mental Health		R01MH129589	71,873	-
	93.262	Centers for Disease Control and Prevention		U01OH012056	234,563	51,687
	93.262	National Institute for Occupational Safety and Health		R21OH011271	58,830	665
	93.262	National Institute for Occupational Safety and Health		T03OH008847	76,117	-
	93.273	National Institute on Alcohol Abuse and Alcoholism		K23AA025111	(5,131)	-
	93.273	National Institute on Alcohol Abuse and Alcoholism		R00AA024810	69,516	13,851
	93.273	National Institute on Alcohol Abuse and Alcoholism		R01AA026664	291,077	42,843
	93.273	National Institute on Alcohol Abuse and Alcoholism		R01AA026850	227,989	80,144
	93.273	National Institute on Alcohol Abuse and Alcoholism		R01AA028225	582,537	35,483

Assistance Listi Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Development	Cluster —				
Funds received directly from	the following agencies				
93.273	National Institute on Alcohol Abuse and Alcoholism		R03AA029909	51,975	-
93.273	National Institute on Alcohol Abuse and Alcoholism		R01AA024769	69,907	-
93.279	National Institute on Drug Abuse		F30DA050423	31,853	-
93.279	National Institute on Drug Abuse		K01DA048174	190,793	-
93.279	National Institute on Drug Abuse		K01DA050778	124,411	-
93.279	National Institute on Drug Abuse		R01DA023908	2,869	-
93.279	National Institute on Drug Abuse		R01DA040395	64,216	2,522
93.279	National Institute on Drug Abuse		R01DA042080	587,088	-
93.279	National Institute on Drug Abuse		R01DA053028	511,354	381,869
93.279	National Institute on Drug Abuse		R21DA044447	70,437	35,423
93.279	National Institute on Drug Abuse		R21DA045236	15,631	13,548
93.279	National Institute on Drug Abuse		R21DA046447	13,430	10,771
93.279	National Institute on Drug Abuse		R21DA052444	266,926	- -
93.279	National Institute on Drug Abuse		R21DA053708	96,738	_
93.279	National Institute on Drug Abuse		R34DA043079	85,547	_
93.279	National Institute on Drug Abuse		R34DA046913	153,917	_
93.279	National Institute on Drug Abuse		U01DA045530	117,266	_
93.279	National Institute on Drug Abuse		UH3DA044822	732,094	208,959
93.279	National Institute on Drug Abuse		UH3DA050174	2,018,695	838,806
93.279	National Institute on Drug Abuse		UM1DA049417	12,053,441	6,174,909
93.279	National Institute on Drug Abuse		DP1DA054344	129.246	-
93.279	National Institute on Drug Abuse		K01DA046716	108,697	_
93.279	National Institute on Drug Abuse		K24DA037109	119,151	_
93.279	National Institute on Drug Abuse		R01DA047236	133,193	31,937
93.279	National Institute on Drug Abuse		R03DA052651	22,207	-
93.286	National Institute of Biomedical Imaging and Bioengineering		R01EB012135	62,265	_
93.286	National Institute of Biomedical Imaging and Bioengineering		R01EB018363	355,942	_
93.286	National Institute of Biomedical Imaging and Bioengineering		R01EB021926	40,226	_
93.286	National Institute of Biomedical Imaging and Bioengineering		R01EB022591	139,596	57,760
93.286	National Institute of Biomedical Imaging and Bioengineering		R03EB030286	99,830	-
93.286	National Institute of Biomedical Imaging and Bioengineering		R01EB029957	416,061	31,053
93.286	National Institute of Biomedical Imaging and Bioengineering		R21EB030294	65,462	-
93.307	National Institute on Minority Health and Health Disparities		R01MD011307	314,804	25,136
93.310	National Cancer Institute		DP2CA271361	215,590	
93.310	National Center for Advancing Translational Sciences		R03TR003686	116,443	_
93.310	COVID National Center for Advancing Translational Sciences		U18TR003807	699,006	156,358
93.310	National Center for Advancing Translational Sciences		UG3TR002884	678,699	197,250
93.310	National Center for Advancing Translational Sciences		UL1TR002733	71,046	71,046
93.310	COVID National Center for Advancing Translational Sciences		UL1TR002733	3,022,464	761,924
93.310	National Center for Advancing Translational Sciences		R03TR004178	3,457	
93.310	National Human Genome Research Institute		R21HG010108	6,619	-
93.310	National Institute of Biomedical Imaging and Bioengineering		DP2EB028110	562,625	-
93.310	National Institute of Neurological Disorders and Stroke		UG3NS115599	667,125	287,864
93.310	COVID National Institute on Deafness and Other Communication Disorders		R01DC016112	167,882	-
93.310	Office of the Director, National Institutes of Health		DP5OD031864	127,618	-
93.318	Centers for Disease Control and Prevention		NU2GGH001752	362,064	-

Assistance Listi Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen					
Funds received directly fror	in the following agencies				
93.318	COVID Centers for Disease Control and Prevention		NU2GGH001752	67,924	_
93.321	National Institute of Child Health and Human Development		F30HD104379	21,311	_
93.350	National Center for Advancing Translational Sciences		KL2TR002734	592,743	-
93.350	National Center for Advancing Translational Sciences		R21TR0003191	217,934	146,085
93.350	National Center for Advancing Translational Sciences		TL1TR002735	159,898	-
93.350	National Center for Advancing Translational Sciences		UL1TR002733	3,860,682	625,490
93.351	Office of the Director, National Institutes of Health		K01OD021419	118,953	-
93.351	Office of the Director, National Institutes of Health		S10OD028705	(1,594)	_
93.351	Office of the Director, National Institutes of Health		T35OD010977	71,941	-
93.351	Office of the Director, National Institutes of Health		K01OD031811	119,666	-
93.351	Office of the Director, National Institutes of Health		R21OD030067	4,485	-
93.351	Office of the Director, National Institutes of Health		R21OD031965	15,941	-
93.353	National Cancer Institute		R33CA225380	592	-
93.353	National Cancer Institute		U24CA252977	416,049	-
93.359	Health Resources and Services Administration		UK1HP31699	735,343	-
93.361	National Institute of Nursing Research		F31NR018586	30,451	-
93.361	National Institute of Nursing Research		K23NR017902	38,855	-
93.361	National Institute of Nursing Research		R01NR018699	473,797	51,613
93.361	National Institute of Nursing Research		R01NR019008	390,201	23,145
93.361	National Institute of Nursing Research		T32NR014225	302,718	-
93.361	National Institute of Nursing Research		K23NR020051	97,629	-
93.393	National Cancer Institute		F99CA253745	7,964	-
93.393	National Cancer Institute		P01CA229143	3,018,317	802,302
93.393	National Cancer Institute		R00CA207736	135,729	7,911
93.393	National Cancer Institute		R01CA067007	362,385	-
93.393	National Cancer Institute		R01CA166590	365,956	-
93.393	National Cancer Institute		R01CA169363	(64)	-
93.393	National Cancer Institute		R01CA172576	10,797	-
93.393	National Cancer Institute		R01CA186251	4,060	-
93.393	National Cancer Institute		R01CA186720	(1,071)	-
93.393	National Cancer Institute		R01CA193244	38	-
93.393	National Cancer Institute		R01CA196243	41,832	32,613
93.393	National Cancer Institute		R01CA204891	413,878	135,053
93.393	National Cancer Institute		R01CA211611	304,923	76,717
93.393	National Cancer Institute		R01CA213290	71,728	-
93.393	National Cancer Institute		R01CA215151	351,888	-
93.393	National Cancer Institute		R01CA217861	105,685	28,531
93.393	National Cancer Institute		R01CA227273	458,469	29,976
93.393	National Cancer Institute		R01CA237213	403,090	48,167
93.393	National Cancer Institute		R01CA248739	364,899	-
93.393	National Cancer Institute		R03CA245999	80,091	-
93.393	National Cancer Institute		R03CA252498	66,280	-
93.393	National Cancer Institute		R03CA259389	61,767	-
93.393	National Cancer Institute		R21CA209566	22,977	-
93.393	National Cancer Institute		R21CA219884	3,512	-
93.393	National Cancer Institute		R37CA226682	420,618	169,765

Assistance Numb	·	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Hallis	i cacial Agency openion	r ass-rmough opensor	identification	Expenditures	to oublecipients
Research and Develop	ment Cluster —				
Funds received directly	from the following agencies				
93.393	National Cancer Institute		U01CA188250	20,236	-
93.393	National Cancer Institute		R01CA255323	395,665	78,487
93.393	National Cancer Institute		R21CA249757	126,483	-
93.393	National Cancer Institute		R01CA255158	134,502	-
93.393	National Cancer Institute		R01CA258757	143,413	86,857
93.393	National Cancer Institute		R03CA270478	13,236	-
93.393	National Cancer Institute		R01CA270608	65,062	-
93.393	National Cancer Institute		R01CA266402	10,294	-
93.394	National Cancer Institute		R01CA223219	230,206	64,071
93.394	National Cancer Institute		R03CA230673	67,451	8,078
93.394	National Cancer Institute		R03CA245771	59,552	-
93.394	National Cancer Institute		U01CA207946	43,531	-
93.394	COVID National Cancer Institute		U54CA260582	2,036,416	-
93.394	National Cancer Institute		UH3CA202971	55,281	-
93.394	National Cancer Institute		UH3CA216432	235,031	-
93.394	National Cancer Institute		UM1CA239749	725,722	89,308
93.394	National Cancer Institute		R33CA258016	318,755	-
93.394	National Cancer Institute		UH2CA262220	117,922	-
93.395	National Cancer Institute		P01CA125066	1,588,807	731,884
93.395	National Cancer Institute		R01CA136934	312	-
93.395	National Cancer Institute		R01CA138744	38	-
93.395	National Cancer Institute		R01CA192928	(6,958)	-
93.395	National Cancer Institute		R01CA197844	(57,718)	-
93.395	National Cancer Institute		R01CA197870	15,447	-
93.395	National Cancer Institute		R01CA198128	2,840	2,840
93.395	National Cancer Institute		R01CA201382	143,723	74,301
93.395	National Cancer Institute		R01CA211014	422,025	-
93.395	National Cancer Institute		R01CA211175	228,567	5,519
93.395	National Cancer Institute		R01CA211720	250,065	-
93.395	National Cancer Institute		R01CA212241	383,467	-
93.395	National Cancer Institute		R01CA214046	275,611	-
93.395	National Cancer Institute		R01CA215802	396,218	-
93.395	National Cancer Institute		R01CA216290	418,308	47,724
93.395	National Cancer Institute		R01CA223165	339,662	122,770
93.395	National Cancer Institute		R01CA226906	354,447	-
93.395	National Cancer Institute		R01CA229254	342,938	-
93.395	National Cancer Institute		R01CA234124	383,510	-
93.395	National Cancer Institute		R01CA238946	661,400	97,717
93.395	National Cancer Institute		R01CA240374	382,287	28,094
93.395	National Cancer Institute		R01CA240493	491,642	-
93.395	National Cancer Institute		R01CA240612	435,782	-
93.395	National Cancer Institute		R01CA248027	262,420	-
93.395	National Cancer Institute		R01CA248741	402,999	-
93.395	National Cancer Institute		R01CA249198	274,129	-
93.395	National Cancer Institute		R01CA252469	405,593	-
93.395	National Cancer Institute		R01CA255334	725,369	-

Assistance Li Number	-	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
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Research and Developme	ent Cluster —				
Funds received directly fr	rom the following agencies				
93.395	National Cancer Institute		R21CA216697	29,663	-
93.395	National Cancer Institute		R21CA216763	2,746	-
93.395	National Cancer Institute		R21CA226477	122,440	
93.395	National Cancer Institute		R21CA237505	79,365	20,119
93.395	National Cancer Institute		R21CA241242	153,338	-
93.395	National Cancer Institute		R21CA245590	84,601	-
93.395	National Cancer Institute		R21CA259985	173,025	-
93.395	National Cancer Institute		R35CA197734	89,822	-
93.395	National Cancer Institute		R37CA233770	368,444	-
93.395	National Cancer Institute		R50CA211524	24,898	-
93.395	National Cancer Institute		U24CA246758	473,265	-
93.395	National Cancer Institute		UG1CA233331	1,141,160	-
93.395	National Cancer Institute		UG1CA233338	164,795	69,731
93.395	National Cancer Institute		UM1CA186712	1,187,865	739,477
93.395	National Cancer Institute		R01CA177292	619,859	-
93.395	National Cancer Institute		R01CA257961	307,709	-
93.395	National Cancer Institute		R01CA262388	231,789	-
93.395	National Cancer Institute		R01CA262069	164,864	-
93.395	National Cancer Institute		U01CA248240	236,866	-
93.395	National Cancer Institute		R21CA263137	35,359	-
93.395	National Cancer Institute		R01CA266682	57,556	-
93.396	National Cancer Institute		P01CA100730	1,790,985	885,560
93.396	National Cancer Institute		P01CA186866	98,345	60,719
93.396	National Cancer Institute		R01CA109527	4,934	-
93.396	National Cancer Institute		R01CA185055	3,037	3,037
93.396	National Cancer Institute		R01CA188419	(855)	-
93.396	National Cancer Institute		R01CA193167	219,182	-
93.396	National Cancer Institute		R01CA198117	34,527	-
93.396	National Cancer Institute		R01CA203584	217,707	-
93.396	National Cancer Institute		R01CA208063	358,216	-
93.396	National Cancer Institute		R01CA208353	298,189	-
93.396	National Cancer Institute		R01CA214865	366,818	17,505
93.396	National Cancer Institute		R01CA215389	400,606	-
93.396	National Cancer Institute		R01CA223204	279,393	-
93.396	National Cancer Institute		R01CA227847	397,635	85,497
93.396	National Cancer Institute		R01CA227874	210,841	-
93.396	National Cancer Institute		R01CA228083	400,733	117,559
93.396	National Cancer Institute		R01CA231857	489,963	-
93.396	National Cancer Institute		R01CA240302	569,039	-
93.396	National Cancer Institute		R01CA240726	477,359	38,187
93.396	National Cancer Institute		R01CA251753	345,349	- 0.404
93.396	National Cancer Institute		R21CA229027	67,766	3,131
93.396	National Cancer Institute		R21CA250118	133,753	-
93.396	National Cancer Institute		R21CA256409	136,340	-
93.396	National Cancer Institute		R35CA197706	919,211	-
93.396	National Cancer Institute		R50CA243898	138,956	-

Assistance L	-		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Developm	ant Cluster				
·	rom the following agencies				
i unus received directly in	form the following agencies				
93.396	National Cancer Institute		R01CA193939	173,107	_
93.396	National Cancer Institute		R01CA222148	470,900	_
93.396	National Cancer Institute		R01CA260690	119,739	-
93.396	National Cancer Institute		R01CA260858	362,910	-
93.396	National Cancer Institute		R01CA255860	181,120	_
93.396	National Cancer Institute		R01CA259182	70,218	-
93.396	National Cancer Institute		R03CA262490	1,905	-
93.397	National Cancer Institute		P30CA016058	5,979,382	33,686
93.398	National Cancer Institute		F30CA225070	45,887	-
93.398	National Cancer Institute		F31CA254151	24,309	-
93.398	National Cancer Institute		K01CA207599	94,528	-
93.398	National Cancer Institute		K01CA218457	122,653	-
93.398	National Cancer Institute		K07CA197221	13,969	-
93.398	National Cancer Institute		K07CA215546	140,102	-
93.398	National Cancer Institute		K07CA216321	150,456	-
93.398	National Cancer Institute		K08CA226352	227,478	-
93.398	National Cancer Institute		K08CA245208	165,500	-
93.398	National Cancer Institute		K12CA133250	569,713	-
93.398	National Cancer Institute		K22CA218466	20,768	-
93.398	National Cancer Institute		K22CA218472	7,357	-
93.398	National Cancer Institute		K22CA241105	219,842	-
93.398	National Cancer Institute		K22CA241290	176,534	-
93.398	National Cancer Institute		K23CA208010	294	-
93.398	National Cancer Institute		K99CA246083	16,444	-
93.398	National Cancer Institute		T32CA009338	(942)	-
93.398	National Cancer Institute		T32CA090223	296,951	-
93.398	National Cancer Institute		T32CA229114	176,193	48,143
93.398	National Cancer Institute		T32CA247815	181,670	-
93.398	National Cancer Institute		K99CA260718	103,410	-
93.398	National Cancer Institute		F32CA265099	59,552	-
93.398	National Cancer Institute		K07CA222158	229,362	-
93.398	National Cancer Institute		F30CA250244	14,249	-
93.433	Administration for Community Living		90DPTB0001	452,033	-
93.433	Administration for Community Living		90RTHF0002	890,098	251,676
93.433	Administration for Community Living		90SI5020	233,292	-
93.464	Administration for Community Living		1901OHATSG	71,141	-
93.464	Administration for Community Living		2001OHATSG	369,095	-
93.464	Administration for Community Living		2101OHATSG	141,674	-
93.632	Administration for Community Living		90DDUC0038	579,483	20,654
93.632	Administration for Community Living		90DDTI0045	70,878	-
93.837	National Heart, Lung, and Blood Institute		F30HL137325	(1,806)	-
93.837	National Heart, Lung, and Blood Institute		F30HL137331	(1,806)	-
93.837	National Heart, Lung, and Blood Institute		F30HL142179	37,973	-
93.837	National Heart, Lung, and Blood Institute		F30HL145955	59,043	-
93.837	National Heart, Lung, and Blood Institute		F32HL144120	(2,945)	-
93.837	National Heart, Lung, and Blood Institute		K08HL135437	50,000	-

Residence Information Parker Agency Sponsor Parker Par						
Pareserch and Development Cluster — Funds received directly from the following agencies		-	Dage Through Spancer	Additional Award	Federal	Expenditures
Section Sect	Numi	per Federal Agency Sponsor	Pass-I nrough Sponsor	Identification	Expenditures	to Subrecipients
Section Sect	Research and Develor	oment Cluster —				
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9.8.357 National Heart, Lurg, and Blood Institute K.99H, 149898 21, 121 -	93.837	National Heart, Lung, and Blood Institute		K08HL148701	2,786	-
93.837 National Heart, Lung, and Blood Institute R00H-12799 18,697 -	93.837	National Heart, Lung, and Blood Institute		K22HL131869	171,442	-
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93.837 National Heart, Lung, and Blood Institute R01HL153876 512,822 -	93.837			R01HL149423		236,928
93.837 National Heart, Lung, and Blood Institute R01HL154001 586,075 -						· <u>-</u>
	93.837	National Heart, Lung, and Blood Institute		R01HL154001	586,075	-

Assistance Li Number	-	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Number	rederal Agency Sponsor	rass-i iliougii Spolisoi	identification	Expenditures	to Subrecipients
Research and Developm	ent Cluster —				
'	rom the following agencies				
93.837	National Heart, Lung, and Blood Institute		R01HL156652	459,472	-
93.837	National Heart, Lung, and Blood Institute		R35HL135754	913,281	-
93.837	National Heart, Lung, and Blood Institute		T32HL134616	274,003	-
93.837	National Heart, Lung, and Blood Institute		T32HL149637	186,365	-
93.837	National Heart, Lung, and Blood Institute		UH3HL140131	96,195	43,038
93.837	National Heart, Lung, and Blood Institute		F31HL152648	17,087	-
93.837	National Heart, Lung, and Blood Institute		R00HL146969	149,334	-
93.837	National Heart, Lung, and Blood Institute		F31HL158234	29,090	-
93.837	National Heart, Lung, and Blood Institute		R01HL151697	375,381	-
93.837	National Heart, Lung, and Blood Institute		R01HL153164	301,937	-
93.837	National Heart, Lung, and Blood Institute		K99HL155492	79,871	-
93.837	National Heart, Lung, and Blood Institute		R01HL158592	146,039	-
93.837	National Heart, Lung, and Blood Institute		R01HL155378	465,793	-
93.837	National Heart, Lung, and Blood Institute		F30HL160104	27,874	-
93.837	National Heart, Lung, and Blood Institute		R01HL160646	130,883	-
93.837	National Heart, Lung, and Blood Institute		R01HL160581	275,995	-
93.837	National Heart, Lung, and Blood Institute		F32HL160059	56,022	-
93.837	National Heart, Lung, and Blood Institute		R01HL157453	131,093	-
93.837	National Heart, Lung, and Blood Institute		R01HL161618	147,573	-
93.837	National Heart, Lung, and Blood Institute		R01HL146744	75,954	-
93.837	National Heart, Lung, and Blood Institute		R01HL162909	25,032	-
93.837	National Institutes of Health		R01HL148736	588,335	29,207
93.838	National Heart, Lung, and Blood Institute		P01HL114453	2,381,115	1,644,112
93.838	National Heart, Lung, and Blood Institute		R01HL076278	(6,775)	-
93.838	National Heart, Lung, and Blood Institute		R01HL096376	388,801	-
93.838	National Heart, Lung, and Blood Institute		R01HL098174	422,295	-
93.838	National Heart, Lung, and Blood Institute		R01HL124325	1,236	-
93.838	National Heart, Lung, and Blood Institute		R01HL131665	314,641	-
93.838	National Heart, Lung, and Blood Institute		R01HL132355	40,079	-
93.838	National Heart, Lung, and Blood Institute		R01HL134673	323,583	-
93.838	National Heart, Lung, and Blood Institute		R01HL136294	359,734	-
93.838	National Heart, Lung, and Blood Institute		R01HL137090	285,013	-
93.838	National Heart, Lung, and Blood Institute		R01HL137224	419,744	-
93.838	National Heart, Lung, and Blood Institute		R01HL139881	644,759	154,166
93.838	National Heart, Lung, and Blood Institute		R01HL141195	481,132	23,923
93.838	National Heart, Lung, and Blood Institute		R01HL141217	488,567	-
93.838	National Heart, Lung, and Blood Institute		R01HL142767	465,554	25,509
93.838 93.838	National Heart, Lung, and Blood Institute		R01HL143000 R01HL151513	765,510 375,444	120,662
93.838	National Heart, Lung, and Blood Institute		R56HL142767		-
	National Heart, Lung, and Blood Institute		UH3HL123502	(139)	-
93.838 93.838	National Heart, Lung, and Blood Institute		R01HL157164	(4,468) 517,440	-
93.838	National Heart, Lung, and Blood Institute National Heart, Lung, and Blood Institute		R01HL157164 R01HL149825	441,259	-
93.838	National Heart, Lung, and Blood Institute		R01HL081784	216,551	-
93.838	National Heart, Lung, and Blood Institute		U01HL145550	281,081	-
93.838	National Heart, Lung, and Blood Institute		R01HL148347	188,671	-
93.030	rvational meant, Lung, and blood institute		NUTITE 140347	100,071	-

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Assistance Li Number	-	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Number	rederal Agency Sponsor	Fass-Tillough Sponsor	identification	Expenditures	to Subrecipients
Research and Developm	ent Cluster —				
•	rom the following agencies				
93.839	National Heart, Lung, and Blood Institute		K23HL141447	197,811	30,071
93.839	National Heart, Lung, and Blood Institute		R01HL126945	83,687	36,016
93.839	National Heart, Lung, and Blood Institute		R01HL131720	216,672	397
93.839	National Heart, Lung, and Blood Institute		R01HL134544	50,907	25,814
93.839	National Heart, Lung, and Blood Institute		R01HL136652	459,932	169,806
93.839	National Heart, Lung, and Blood Institute		R01HL137799	485,883	-
93.839	National Heart, Lung, and Blood Institute		R01HL138116	294,586	35,095
93.839	National Heart, Lung, and Blood Institute		R01HL151195	496,756	-
93.839	National Heart, Lung, and Blood Institute		R01HL153723	796,203	379,890
93.839	National Heart, Lung, and Blood Institute		R01HL156526	641,414	269,893
93.839	National Heart, Lung, and Blood Institute		UG1HL109322	171,857	68,603
93.839	National Heart, Lung, and Blood Institute		R01HL159862	490,354	419,558
93.840	National Heart, Lung, and Blood Institute		R01HL146781	387,333	107,340
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		F31AR073638	18,589	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		K23AR068450	81,877	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR059103	187,686	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR061385	(152,622)	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR067766	79,270	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR070486	80,985	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR070752	448,989	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR072574	341,740	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR075062	708,952	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R21AR075318	4,890	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R21AR076611	88,653	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R21AR077809	231,055	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R33AR073049	168,159	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R56AR073805	87,641	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R61AR076786	29,263	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		UH2AR076729	556,665	99,791
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR078231	372,284	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R21AR078022	119,975	-
93.846	National Institute of Arthritis and Musculoskeletal and Skin Diseases		R01AR079485	3,078	46.612
93.847 93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		DP1DK126199 K01DK116916	161,643 99,100	46,613
	,		K08DK111920		-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases			136,749	-
93.847 93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		K08DK123411 K23DK117041	167,559 266,338	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK101323		-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK101323	(1,536) 148,206	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK103033	(40,710)	-
93.847 93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK106394 R01DK108969	51,070	43,806
93.847 93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK106969 R01DK109345	115,609	45,606 29,137
93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK109343	344,764	23,137
93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK112930 R01DK113943	58,604	35,662
93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK113943 R01DK114320	177,514	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases National Institute of Diabetes and Digestive and Kidney Diseases		R01DK114320 R01DK117102	444,290	67,765
33.047	reasonal modulate of Diabetes and Digestive and Numey Diseases		NOIDKIII 102	444,290	07,700

Assistance List Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmer	nt Cluster —				
Funds received directly from	m the following agencies				
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK120108	392,584	134,030
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK123475	612,662	52,576
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK125809	386,637	10,974
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK126008	518,982	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK127444	322,907	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK128238	205,250	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		U01DK108327	505,755	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		U01DK127388	256,575	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK131207	115,789	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R56DK126856	70,709	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK132230	63,772	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		R01DK132403	53,916	-
93.847	National Institute of Diabetes and Digestive and Kidney Diseases		K01DK125527	10,301	-
93.853	National Institute of Neurological Disorders and Stroke		F31NS115523	5,734	-
93.853	National Institute of Neurological Disorders and Stroke		F31NS117124	28,989	-
93.853	National Institute of Neurological Disorders and Stroke		F32NS119371	28,887	-
93.853	National Institute of Neurological Disorders and Stroke		F99NS118743	32,561	-
93.853	National Institute of Neurological Disorders and Stroke		P30NS104177	137,322	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS074882	74,234	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS093073	381,911	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS098780	(13,477)	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS100522	304,073	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS104332	387,980	43,663
93.853	National Institute of Neurological Disorders and Stroke		R01NS105385	372,144	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS109585	534,002	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS110681	397,734	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS112805	363,461	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS112935	339,279	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS116059	278,118	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS118037	528,788	14,636
93.853	National Institute of Neurological Disorders and Stroke		R01NS118200	538,075	-
93.853	National Institute of Neurological Disorders and Stroke		R03NS116303	99,663	-
93.853	National Institute of Neurological Disorders and Stroke		R03NS116334	97,307	-
93.853	National Institute of Neurological Disorders and Stroke		R21NS084899	53,995	52,207
93.853	National Institute of Neurological Disorders and Stroke		R21NS109787	100,753	-
93.853	National Institute of Neurological Disorders and Stroke		R21NS113097	57,825	-
93.853	National Institute of Neurological Disorders and Stroke		R21NS117852	323,777	-
93.853	National Institute of Neurological Disorders and Stroke		R21NS123797	217,404	-
93.853	National Institute of Neurological Disorders and Stroke		R25NS120282	74,484	-
93.853	National Institute of Neurological Disorders and Stroke		R35NS111582	951,959	-
93.853	National Institute of Neurological Disorders and Stroke		T32NS105864	173,849	-
93.853	National Institute of Neurological Disorders and Stroke		U01NS112101	248,630	-
93.853	National Institute of Neurological Disorders and Stroke		U24NS107205	308,169	60,070
93.853	National Institute of Neurological Disorders and Stroke		F32NS119378	64,248	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS123736	469,263	13,160
93.853	National Institute of Neurological Disorders and Stroke		R01NS110905	304,375	- -

Assistance Listi	ng		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
	3 . 3 . 3 .			• • • • • • • • • • • • • • • • • • • •	
Research and Development	t Cluster —				
Funds received directly from					
93.853	National Institute of Neurological Disorders and Stroke		F31NS124263	32,092	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS123887	309,139	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS123687	150,330	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS094292	397,015	80,164
93.853	National Institute of Neurological Disorders and Stroke		R01NS124775	227,093	-
93.853	National Institute of Neurological Disorders and Stroke		UG3NS117844	792,810	450,677
93.853	National Institute of Neurological Disorders and Stroke		R21NS125468	87,789	(1)
93.853	National Institute of Neurological Disorders and Stroke		R01NS046072	532,038	255,632
93.853	National Institute of Neurological Disorders and Stroke		F99NS124174	31,436	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS121234	216,681	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS124681	150,166	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS119488	80,495	-
93.853	National Institute of Neurological Disorders and Stroke		R21NS121436	8,557	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS125589	125,869	-
93.853	National Institute of Neurological Disorders and Stroke		F31NS122471	12,003	-
93.853	National Institute of Neurological Disorders and Stroke		R01NS124714	5,038	-
93.855	National Institute of Allergy and Infectious Diseases		K01AI146270	91,703	-
93.855	National Institute of Allergy and Infectious Diseases		K22AI146141	123,462	-
93.855	National Institute of Allergy and Infectious Diseases		R00Al125136	36,556	-
93.855	National Institute of Allergy and Infectious Diseases		R01AI077283	119,814	-
93.855	National Institute of Allergy and Infectious Diseases		R01AI084898	579,438	-
93.855	National Institute of Allergy and Infectious Diseases		R01AI090060	485,576	126,215
93.855	National Institute of Allergy and Infectious Diseases		R01Al112381	593	-
93.855	National Institute of Allergy and Infectious Diseases		R01Al116770	78,092	_
93.855	National Institute of Allergy and Infectious Diseases		R01Al118852	789	_
93.855	National Institute of Allergy and Infectious Diseases		R01Al121124	245,236	_
93.855	National Institute of Allergy and Infectious Diseases		R01AI121212	(21,583)	_
93.855	National Institute of Allergy and Infectious Diseases		R01Al121405	103,043	_
93.855	National Institute of Allergy and Infectious Diseases		R01AI123661	55,510	9,748
93.855	National Institute of Allergy and Infectious Diseases		R01Al124121	190,991	-
93.855	National Institute of Allergy and Infectious Diseases		R01AI125560	13,299	1,894
93.855	COVID National Institute of Allergy and Infectious Diseases		R01AI125560	119,569	-
93.855	National Institute of Allergy and Infectious Diseases		R01Al126742	202,657	_
93.855	National Institute of Allergy and Infectious Diseases		R01AI127863	407,584	169,010
93.855	National Institute of Allergy and Infectious Diseases		R01AI130110	480,803	-
93.855	National Institute of Allergy and Infectious Diseases		R01Al134895	559,230	137.464
93.855	National Institute of Allergy and Infectious Diseases		R01Al134972	342,079	18,751
93.855	National Institute of Allergy and Infectious Diseases		R01Al139913	543,140	88,519
93.855	National Institute of Allergy and Infectious Diseases		R01AI140541	769,984	-
93.855	National Institute of Allergy and Infectious Diseases		R01AI140741	488,074	_
93.855	National Institute of Allergy and Infectious Diseases		R01AI143288	725,913	201,172
93.855	National Institute of Allergy and Infectious Diseases		R01AI143200	218,221	6,565
93.855	National Institute of Allergy and Infectious Diseases		R01AI145009	500,649	-
93.855	National Institute of Allergy and Infectious Diseases		R01AI146252	431,030	_
93.855	National Institute of Allergy and Infectious Diseases		R01AI148561	330,338	61,717
93.855	National Institute of Allergy and Infectious Diseases		R01AI148788	354,499	85,883
33.000	rational montate of Allergy and infectious Diseases		101/1140700	554,499	00,000

Assistance List Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Number	rederal Agency Oponsor	r ass-rinough oponsor	identification	Experientures	to oublecipients
Research and Developmer	nt Cluster —				
Funds received directly from	m the following agencies				
93.855	National Institute of Allergy and Infectious Diseases		R01Al150490	100.709	
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI150490 R01AI151065	315,577	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI151005	355,760	6,576
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI152445	517,113	0,370
93.855	National Institute of Allergy and Infectious Diseases		R01Al153216	401,231	_
93.855	National Institute of Allergy and Infectious Diseases		R01Al154456	384,605	_
93.855	National Institute of Allergy and Infectious Diseases		R01Al157205	423,322	_
93.855	National Institute of Allergy and Infectious Diseases		R03AI144253	16,738	_
93.855	National Institute of Allergy and Infectious Diseases		R03AI149371	48,944	_
93.855	National Institute of Allergy and Infectious Diseases		R03AI151769	49,943	_
93.855	National Institute of Allergy and Infectious Diseases		R21Al130485	22,167	_
93.855	National Institute of Allergy and Infectious Diseases		R21Al137714	68,723	_
93.855	National Institute of Allergy and Infectious Diseases		R21Al138555	308,848	_
93.855	National Institute of Allergy and Infectious Diseases		R21Al138775	44,169	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI139600	13,865	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI142256	200,246	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI142794	181,191	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI146690	104,972	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI146736	103,586	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI148986	208,921	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI151230	131,812	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI151736	112,391	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI151736	129,207	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI156304	158,322	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI156379	193,774	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI156411	121,071	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI156441	129,780	_
93.855	National Institute of Allergy and Infectious Diseases		R21Al156732	116,100	20,666
93.855	National Institute of Allergy and Infectious Diseases		R33AI116180	(20,362)	20,000
93.855	National Institute of Allergy and Infectious Diseases		T32AI106704	183,829	-
93.855	National Institute of Allergy and Infectious Diseases		U01AI125859	99,879	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI168817	10,991	_
93.855	National Institute of Allergy and Infectious Diseases		R21AI141037	206,233	_
93.855	National Institute of Allergy and Infectious Diseases		F32AI161844	87,897	_
93.855	National Institute of Allergy and Infectious Diseases		R37AI118852	380,890	_
93.855	National Institute of Allergy and Infectious Diseases		R01Al153829	427,071	74,131
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01Al159452	825,812	74,131
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI162779	235,654	<u>-</u>
93.855	National Institute of Allergy and Infectious Diseases		R03Al164337	59,707	_
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01Al148741	627,273	9,746
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI152223	139,001	3,740 -
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R56AI157202	381,160	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R56AI157872	66,432	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01Al107117	211,093	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI169865	34,568	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases		R01AI169605	88,187	-
33.000	Hadional institute of Allergy and infectious diseases		NOTATIOZI II	00,107	-

Assistance Listi Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen					
Funds received directly fror	if the following agencies				
93.855	National Institute of Allergy and Infectious Diseases		DP2AI154451	75,693	_
93.855	National Institute of Allergy and Infectious Diseases		U01AI168630	29,059	-
93.855	National Institute of Allergy and Infectious Diseases		R56AI158674	6,815	-
93.859	National Institute of Allergy and Infectious Diseases		R01AI150448	263,427	-
93.859	National Institute of Allergy and Infectious Diseases		R01AI150473	159,292	-
93.859	National Institute of Allergy and Infectious Diseases		R01AI150493	170,568	35,624
93.859	National Institute of Allergy and Infectious Diseases		R01AI150496	212,864	-
93.859	National Institute of General Medical Sciences		F31GM134573	4,815	-
93.859	National Institute of General Medical Sciences		K08GM126315	67	-
93.859	National Institute of General Medical Sciences		K08GM137078	179,333	-
93.859	National Institute of General Medical Sciences		P41GM128577	1,342,661	202,978
93.859	National Institute of General Medical Sciences		R00GM124460	162,943	-
93.859	National Institute of General Medical Sciences		R00GM126064	214,743	-
93.859	National Institute of General Medical Sciences		R00GM126810	170,792	-
93.859	National Institute of General Medical Sciences		R01GM047823	16,898	-
93.859	National Institute of General Medical Sciences		R01GM065183	75,495	10,475
93.859	National Institute of General Medical Sciences		R01GM066041	399	-
93.859	National Institute of General Medical Sciences		R01GM067153	329,945	-
93.859	National Institute of General Medical Sciences		R01GM072528	358,245	-
93.859	National Institute of General Medical Sciences		R01GM084065	389,057	-
93.859	National Institute of General Medical Sciences		R01GM087543	(521)	(1,042)
93.859	National Institute of General Medical Sciences		R01GM094357	471,045	56,437
93.859	National Institute of General Medical Sciences		R01GM095566	(33,500)	-
93.859	National Institute of General Medical Sciences		R01GM100951	332,866	-
93.859	National Institute of General Medical Sciences		R01GM105695	1,811	-
93.859	National Institute of General Medical Sciences		R01GM109988	143,695	-
93.859	National Institute of General Medical Sciences		R01GM110406	455,738	-
93.859	National Institute of General Medical Sciences		R01GM114666	373,697	-
93.859	National Institute of General Medical Sciences		R01GM115389	29,592	-
93.859	National Institute of General Medical Sciences		R01GM117964	308,971	-
93.859	National Institute of General Medical Sciences		R01GM118746	14,350	-
93.859	National Institute of General Medical Sciences		R01GM120209	228,982	-
93.859	National Institute of General Medical Sciences		R01GM120496	268,645	-
93.859	National Institute of General Medical Sciences		R01GM120582	23,471	173
93.859	National Institute of General Medical Sciences		R01GM120923	81,006	41,861
93.859	National Institute of General Medical Sciences		R01GM121966	154,634	-
93.859	National Institute of General Medical Sciences		R01GM122078	162,076	70,965
93.859	National Institute of General Medical Sciences		R01GM122432	26,183	-
93.859	National Institute of General Medical Sciences		R01GM122884	276,656	-
93.859	National Institute of General Medical Sciences		R01GM123743	(401)	-
93.859	National Institute of General Medical Sciences		R01GM124320	456,012	-
93.859	National Institute of General Medical Sciences		R01GM124436	537,861	170,226
93.859	National Institute of General Medical Sciences		R01GM127526	447,231	-
93.859	National Institute of General Medical Sciences		R01GM128440	252,564	-
93.859	National Institute of General Medical Sciences		R01GM129764	354,770	-
93.859	National Institute of General Medical Sciences		R01GM130135	224,062	102,931

Assistance Listi Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Number	readian Agency openion	r ass-rmough opensor	identification	Experiences	to Gust corpicitio
Research and Development	t Cluster —				
Funds received directly from	n the following agencies				
93.859	National Institute of General Medical Sciences		R01GM131399	364,890	110,026
93.859	National Institute of General Medical Sciences		R01GM131626	550,522	283,143
93.859	National Institute of General Medical Sciences		R01GM132651	248,676	-
93.859	National Institute of General Medical Sciences		R01GM133032	293,488	_
93.859	National Institute of General Medical Sciences		R01GM135234	287,732	_
93.859	National Institute of General Medical Sciences		R01GM137135	321,830	_
93.859	National Institute of General Medical Sciences		R01GM137203	438,474	_
93.859	National Institute of General Medical Sciences		R01GM138997	350,443	_
93.859	National Institute of General Medical Sciences		R01GM140281	163,366	62,003
93.859	National Institute of General Medical Sciences		R01GM141394	411,795	-
93.859	National Institute of General Medical Sciences		R21GM126543	477	_
93.859	National Institute of General Medical Sciences		R21GM140382	214,569	_
93.859	National Institute of General Medical Sciences		R25GM089571	362,029	_
93.859	National Institute of General Medical Sciences		R35GM118332	174,939	_
93.859	National Institute of General Medical Sciences		R35GM119679	54,941	_
93.859	National Institute of General Medical Sciences		R35GM119812	736,859	_
93.859	National Institute of General Medical Sciences		R35GM122459	438,890	_
93.859	National Institute of General Medical Sciences		R35GM128852	208,609	_
93.859	National Institute of General Medical Sciences		R35GM131760	550,406	_
93.859	National Institute of General Medical Sciences		R35GM133510	350,541	_
93.859	National Institute of General Medical Sciences		R35GM136400	341,954	_
93.859	National Institute of General Medical Sciences		R35GM138373	482,671	_
93.859	National Institute of General Medical Sciences		R35GM139545	474,205	_
93.859	National Institute of General Medical Sciences		R35GM141880	410,052	_
93.859	National Institute of General Medical Sciences		T32GM068412	24,564	_
93.859	National Institute of General Medical Sciences		T32GM075787	(25,660)	
93.859	National Institute of General Medical Sciences		T32GM076767	44,195	-
93.859	National Institute of General Medical Sciences		T32GM000232	163,443	-
93.859	National Institute of General Medical Sciences		R01GM141280	326,206	-
93.859	National Institute of General Medical Sciences		T32GM141955	286,387	-
93.859	National Institute of General Medical Sciences		R35GM139482	197,168	-
93.859	National Institute of General Medical Sciences		R01GM143539	315,905	-
93.859	National Institute of General Medical Sciences		T32GM139784	574,944	-
93.859	National Institute of General Medical Sciences		R35GM142580	319,802	-
93.859	National Institute of General Medical Sciences		R01GM143543	204,048	-
	National Institute of General Medical Sciences			·	24.024
93.859 93.859	National Institute of General Medical Sciences National Institute of General Medical Sciences		R01GM141279	94,546	34,031
			R01GM143217	253,479	-
93.859	National Institute of General Medical Sciences National Institute of General Medical Sciences		R01GM143414 R35GM139564	127,378	-
93.859				297,629	-
93.859	National Institute of General Medical Sciences		R01GM136886	133,675	-
93.859	National Institute of General Medical Sciences		R01GM144601	100,038	-
93.859	National Institute of General Medical Sciences		R35GM144047	122,926	-
93.859	National Institute of General Medical Sciences		R35GM144117	55,680	-
93.859	National Institute of General Medical Sciences		R01GM145746	3,245	457.470
93.865	National Institute of Child Health and Human Development		P01HD080679	177,578	157,476
93.865	National Institute of Child Health and Human Development		P2CHD058484	407,150	-

Assistance List	-	Door Through Spanage	Additional Award Identification	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	identification	Expenditures	to Subrecipients
Research and Developmer	nt Cluster —				
Funds received directly from					
,	3 3				
93.865	National Institute of Child Health and Human Development		R01HD037078	466,291	216,377
93.865	National Institute of Child Health and Human Development		R01HD060586	299,850	25,145
93.865	National Institute of Child Health and Human Development		R01HD078545	451,019	-
93.865	National Institute of Child Health and Human Development		R01HD083384	69,778	14,171
93.865	National Institute of Child Health and Human Development		R01HD084637	73,329	-
93.865	National Institute of Child Health and Human Development		R01HD086227	604,607	230,405
93.865	National Institute of Child Health and Human Development		R01HD091274	257,283	104,963
93.865	National Institute of Child Health and Human Development		R01HD095881	425,014	-
93.865	National Institute of Child Health and Human Development		R01HD100455	780,993	211,455
93.865	National Institute of Child Health and Human Development		R03HD096182	32,020	-
93.865	National Institute of Child Health and Human Development		R03HD098420	56,751	34,046
93.865	National Institute of Child Health and Human Development		R03HD100603	53,026	-
93.865	National Institute of Child Health and Human Development		R03HD100924	64,684	-
93.865	National Institute of Child Health and Human Development		R03HD101083	175,302	117,309
93.865	National Institute of Child Health and Human Development		R03HD102740	92,555	45,393
93.865	National Institute of Child Health and Human Development		R21HD095150	27,964	-
93.865	National Institute of Child Health and Human Development		R21HD095179	4,643	-
93.865	National Institute of Child Health and Human Development		R21HD102897	107,145	-
93.865	National Institute of Child Health and Human Development		UG1HD027915	312,242	-
93.865	National Institute of Child Health and Human Development		R13HD097950	6,410	-
93.865	National Institute of Child Health and Human Development		R03HD103860	38,346	-
93.865	National Institute of Child Health and Human Development		R01HD104072	327,391	122,841
93.865	National Institute of Child Health and Human Development		R01HD094634	494,880	69,566
93.865	National Institutes of Health		R21HD099380	123,917	-
93.866	National Institute on Aging		K01AG056673	122,128	-
93.866	National Institute on Aging		K01AG056848	104,266	-
93.866	National Institute on Aging		K23AG061284	133,460	-
93.866	National Institute on Aging		K76AG054864	101,543	-
93.866	National Institute on Aging		R00AG054736	219,230	-
93.866	National Institute on Aging		R00AG054760	(48,302)	-
93.866	National Institute on Aging		R01AG041176	596,623	-
93.866	National Institute on Aging		R01AG050725	330,431	79,107
93.866	National Institute on Aging		R01AG050801	188,757	75,608
93.866	National Institute on Aging		R01AG051902	208,587	1,172
93.866	National Institute on Aging		R01AG054427	603,011	
93.866	National Institute on Aging		R01AG055059	687,738	441,036
93.866	National Institute on Aging		R01AG056469	401,942	23,210
93.866	National Institute on Aging		R01AG056504	425,950	94,500
93.866	National Institute on Aging		R01AG056919	146,615	-
93.866	National Institute on Aging		R01AG057032	535,323	12,761
93.866	National Institute on Aging		R01AG057046	755,917	327,919
93.866	National Institute on Aging		R01AG057841	409,449	-
93.866	National Institute on Aging		R01AG058822	503,179	330,342
93.866	National Institute on Aging		R01AG059711	401,166	8,517
93.866	National Institute on Aging		R01AG059861	830,206	107,262
93.866	National Institute on Aging		R01AG059981	372,440	26,474

	ice Listing mber Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Deve	opment Cluster —				
Funds received dire	ctly from the following agencies				
93.866	National Institute on Aging		R01AG060542	587,061	237,430
93.866	National Institute on Aging		R01AG062896	254,192	-
93.866	National Institute on Aging		R01AG065830	931,809	-
93.866	National Institute on Aging		R01AG068882	288,680	=
93.866	National Institute on Aging		R01AG069138	688,556	-
93.866	National Institute on Aging		R03AG060177	3,358	-
93.866	National Institute on Aging		R03AG063276	63,630	-
93.866	National Institute on Aging		R03AG064374	42,238	-
93.866	National Institute on Aging		R03AG064379	18,377 48,321	-
93.866	National Institute on Aging		R03AG067061	,	-
93.866	National Institute on Aging		R03AG067387	91,899	897
93.866 93.866	National Institute on Aging National Institute on Aging		R21AG056921 R21AG060028	78,945 3,139	097
	5 5		R21AG060026 R21AG061496		-
93.866 93.866	National Institute on Aging National Institute on Aging		R21AG062144	70,739 25,320	6,850
93.866	National Institute on Aging National Institute on Aging		R21AG064899	79,920	0,000
93.866	National Institute on Aging National Institute on Aging		R21AG066059	175,968	-
93.866	National Institute on Aging National Institute on Aging		R21AG0607755	103,691	3,919
93.866	National Institute on Aging National Institute on Aging		R21AG007733	241,917	12,670
93.866	National Institute on Aging		R56AG041250	42,293	12,070
93.866	National Institute on Aging National Institute on Aging		R56AG055795	(1,844)	-
93.866	National Institute on Aging		R56AG066782	162,820	25,679
93.866	National Institute on Aging		RF1AG028271	661,815	193,345
93.866	National Institute on Aging		RF1AG054018	698,097	92,735
93.866	National Institute on Aging		U01AG054444	91,123	636
93.866	National Institute on Aging		U01AG068822	2,097,903	-
93.866	National Institute on Aging		R21AG066037	232,324	86,132
93.866	National Institute on Aging		R01AG071649	484,023	159,321
93.866	National Institute on Aging		R01AG055121	387,709	217,321
93.866	National Institute on Aging		K01AG070310	101,298	
93.866	National Institute on Aging		R21AG068831	190,854	22,556
93.866	National Institute on Aging		R03AG074072	140,862	,
93.866	National Institute on Aging		R01AG073113	502,081	13,937
93.866	National Institute on Aging		U01AG076549	272,086	16,974
93.866	National Institute on Aging		K76AG074923	192,860	-
93.866	National Institute on Aging		R56AG073310	186,158	_
93.866	National Institute on Aging		K76AG068435	147,089	_
93.866	National Institute on Aging		R01AG070592	44,806	-
93.866	National Institute on Aging		R01AG075092	93,045	4,143
93.866	National Institute on Aging		R01AG071018	29,497	-
93.866	National Institute on Aging		R21AG073720	3,948	-
93.867	National Eye Institute		K08EY029362	160,759	-
93.867	National Eye Institute		R01EY022030	288,590	-
93.867	National Eye Institute		R01EY022124	440,589	204,871
93.867	National Eye Institute		R01EY024590	299,198	80,500
93.867	National Eye Institute		R01EY025358	15,130	-

Assistance Lis Number	sting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developme	ent Cluster —				
Funds received directly fro					
93.867	National Eye Institute		R01EY025648	349,523	-
93.867	National Eye Institute		R01EY025658	74,490	-
93.867	National Eye Institute		R01EY026910	48,850	-
93.867	National Eye Institute		R01EY027003	141,418	-
93.867	National Eye Institute		R01EY027399	231,340	-
93.867	National Eye Institute		R01EY028350	79,501	-
93.867	National Eye Institute		R01EY029159	106,246	9,834
93.867	National Eye Institute		R01EY029777	271,247	-
93.867	National Eye Institute		R01EY029809	(5,256)	(4,260)
93.867	National Eye Institute		R01EY030621	316,113	-
93.867	National Eye Institute		R01EY031098	465,351	271,092
93.867	National Eye Institute		R01EY032141	314,300	-
93.867	National Eye Institute		R34EY030582	140,347	65,430
93.867	National Eye Institute		T35EY007151	44,817	-
93.867	National Eye Institute		UG1EY023206	229,202	-
93.867	National Eye Institute		UG1EY023208	121,506	-
93.867	National Eye Institute		UG1EY023210	460,830	-
93.867	National Eye Institute		R21EY030651	146,048	-
93.867	National Eye Institute		R01EY030060	359,269	24,480
93.867	National Eye Institute		R01EY032573	207,858	-
93.867	National Eye Institute		R21EY032226	65,562	-
93.867	National Eye Institute		R01EY032583	37,777	-
93.867	National Eye Institute		R01EY033815	26,225	-
93.876	Food and Drug Administration		U01FD007130	184,321	-
93.879	National Library of Medicine		R21LM013678	93,577	4,547
93.879	COVID National Library of Medicine		R01LM013879	75,947	-
93.978	Centers for Disease Control and Prevention		U01PS005170	197,346	34,789
93.989	John E Fogarty International Center		D43TW008650	140,368	-
93.989	John E Fogarty International Center		R21TW011131	98,301	-
93.RD	Centers for Disease Control and Prevention		21IPA2111834	71,727	-
93.RD	Centers for Disease Control and Prevention		75D30119P05688	35,818	-
93.RD	Centers for Disease Control and Prevention		75D30120C08630	301,708	-
93.RD	Centers for Disease Control and Prevention		75D30120P09974	102,157	-
93.RD	Centers for Disease Control and Prevention		75D30120P09096	183,648	-
93.RD	Food and Drug Administration		75F40119P10227	118,742	-
93.RD	Food and Drug Administration		HHSF223201850065A	61,264	-
93.RD	National Cancer Institute		75N91021P00842	44,249	-
93.RD	National Cancer Institute		17C0102	5,119	-
93.RD	National Heart, Lung, and Blood Institute		75N92021D00003	838,244	-
93.RD	National Heart, Lung, and Blood Institute		HHSN268201600002C	(5,267)	-
	Total Department of Health and Human Services Direct Awards			232,382,163	32,866,339
U.S. Agency for Internati	ional Development				
98.001	Agency for International Development		72038621CA00002	398,586	13,000

Assistance Listi Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Development Funds received directly from					
	Total U.S. Agency for International Development			398,586	13,000
National Academy of Scie 99.RD	nces Direct Awards National Academy of Sciences		Grant #2000010718	49,591	-
	Total National Academy of Sciences Direct Awards			49,591	-
Subtotal of Research and	d Development Cluster funds received directly from federal agencies			\$ 384,445,702	\$ 58,183,250

Assistance Listin	g		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
	.				
Research and Development					
Pass-through from other sour	rces:				
Department of Agriculture					
10.001	Foundation for Food and Agriculture Research	USDA Agricultural Research Service	FFAR 552951	\$ 1,472	\$ -
10.001	Natural Resources Conservation Service	USDA Agricultural Research Service	NRC20IRA0010393	55,807	-
10.001	Natural Resources Conservation Service	USDA Agricultural Research Service	NRC20IRA0010387	48,378	-
10.001	Natural Resources Conservation Service	USDA Agricultural Research Service	NRCS20IRA0010387	80,320	-
10.001	SmithBucklin	USDA Agricultural Research Service	USB 2120-152-0114	25,574	-
10.001	SmithBucklin	USDA Agricultural Research Service	2220-152-0112	29,974	-
10.001	USDA Agricultural Research Service	Univ of Arkansas	58-8250-9-002	10,344	-
10.072	Natural Resources Conservation Service	The Nature Conservancy	68-3A75-16-1281/68-7103-17-101	6,120	-
10.170	Agricultural Marketing Service	Bowling Green State University	AM200100XXXXG067	17,099	-
10.170	Agricultural Marketing Service	Ohio Department Of Agriculture	Agreement dated 11/02/2018	492	-
10.170	Agricultural Marketing Service	Ohio Department Of Agriculture	Award dated 10/19/2020	25,420	-
10.170	Agricultural Marketing Service	Ohio Department Of Agriculture	Award dated 10/29/2020	101,598	16,396
10.170	Agricultural Marketing Service	Ohio Department Of Agriculture	AM180100XXXXG033	10,561	-
10.170	Agricultural Marketing Service	Ohio Department Of Agriculture	AM190100XXXXG021	205,436	-
10.170	Agricultural Marketing Service	Ohio Department Of Agriculture	21SCBPOH1033-00	35,144	-
10.170	Agricultural Marketing Service	Pennsylvania State Univ	AM170200XXXXG007	6,476	-
10.170	US Department of Agriculture	Cornell University	USDA-AMS-TM-SCBGP-G-21-0003	8,059	-
10.170	US Department of Agriculture	Ohio Department Of Agriculture	Agreement dated 10/29/2018	27,070	-
10.170	US Department of Agriculture	Ohio Department Of Agriculture	Award dated 10-12-18	4,390	-
10.200	National Institute of Food and Agriculture	Iowa State Univ	20163850025753	9,450	-
10.200	National Institute of Food and Agriculture	Iowa State Univ	20183850028887	68,480	-
10.200	National Institute of Food and Agriculture	Michigan State Univ	20193438329882	5,508	-
10.200	National Institute of Food and Agriculture	Michigan State Univ	20193438239882	3,781	-
10.200	National Institute of Food and Agriculture	Michigan State Univ	20213438334848	67,937	-
10.200	National Institute of Food and Agriculture	Univ of Maine at Orono	20193414130285	17,941	-
10.200	National Institute of Food and Agriculture	Univ of Maine at Orono	20213414135448	4,673	-
10.203	National Institute of Food and Agriculture	University of Illinois	NI20HFPXXXXXG050	2,974	-
10.212	US Department of Agriculture	Larad Vaccines	20183361028579	7,512	-
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20163864025381	-	-
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20173864026916	21,134	-
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20183864028416	50,442	8,022
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20193864029879	95,454	-
10.215	National Institute of Food and Agriculture	Univ of Minnesota Univ of Minnesota	20203864031522 20213864034714	77,758 8,890	-
10.215 10.216	National Institute of Food and Agriculture National Institute of Food and Agriculture	Central State University	20213004034714 20173882126411	16,302	-
10.216	National Institute of Food and Agriculture	Central State University	20173882126419	9,458	-
10.217	National Institute of Food and Agriculture	Purdue Univ	2017/3002120419	4,364	-
10.304	National Institute of Food and Agriculture	Michigan State Univ	20163762025765	8,150	
10.304	National Institute of Food and Agriculture	Michigan State Univ	20213762135788	7,760	
10.309	National Institute of Food and Agriculture	Michigan State Univ	20195118130017	107,390	_
10.309	National Institute of Food and Agriculture	North Carolina State Univ	20165118125404	103,189	_
10.309	National Institute of Food and Agriculture	North Carolina State Univ	20215118135857	34,894	-
10.309	National Institute of Food and Agriculture	Oregon State Univ	20205118132154	158,746	-
10.309	National Institute of Food and Agriculture	Purdue Univ	20165118125410	104,037	_
10.309	National Institute of Food and Agriculture	Univ of Florida	20195118130010	116,956	-
10.309	National Institute of Food and Agriculture	Univ of Florida	20205118132157	126,270	-
10.309	National Institute of Food and Agriculture	Univ of Minnesota	20195118130025	170,827	-
10.309	National Institute of Food and Agriculture	Washington State Univ	20185118128364	55,348	-
10.310	National Institute of Food and Agriculture	Colorado State Univ	20216800634029	35,254	-
10.310	National Institute of Food and Agriculture	Cornell University	20176701532034	52,948	-
10.310	National Institute of Food and Agriculture	Cornell University	20206703731036	17,293	-

Assistance Listi	na		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Number	r edetal Agency oponsor	r ass-rinough oponsor	Identification	Experiences	to oublecipients
Research and Development	t Cluster —				
Pass-through from other sou	urces:				
10.310	National Institute of Food and Agriculture	Cornell University	20196801532341	103,120	-
10.310	National Institute of Food and Agriculture	Cornell University	20216702334437	9,285	-
10.310	National Institute of Food and Agriculture	Michigan State Univ	20206701530827	77,117	-
10.310	National Institute of Food and Agriculture	Michigan State Univ	20206801231822	90,727	-
10.310	National Institute of Food and Agriculture	North Carolina State Univ	20196801229818	36,621	-
10.310	National Institute of Food and Agriculture	Oregon State Univ	20216702134343	69,987	-
10.310	National Institute of Food and Agriculture	Pennsylvania State Univ	20206701331920	15,524	-
10.310	National Institute of Food and Agriculture	Pennsylvania State Univ	20196801229904	57,083	-
10.310	National Institute of Food and Agriculture	Purdue Univ	20196701529814	18,942	-
10.310	National Institute of Food and Agriculture	Purdue Univ	20186701727825	5,618	-
10.310	National Institute of Food and Agriculture	Univ of Delaware	20166701525027	(4,077)	-
10.310	National Institute of Food and Agriculture	Univ of Delaware	20186702329795	25,809	-
10.310	National Institute of Food and Agriculture	Univ of Florida	20176701726179	25,068	-
10.310	National Institute of Food and Agriculture	Univ of Georgia	20176701526586	115	-
10.310	National Institute of Food and Agriculture	Univ of Minnesota	20206801231934	55,866	-
10.310	National Institute of Food and Agriculture	Univ of Wisconsin	20196701329298	90,263	-
10.310 10.310	National Institute of Food and Agriculture National Institute of Food and Agriculture	Univ of Wisconsin Univ of Wisconsin	20216801235917 20226701936413	15,575 3,711	-
	-			97,530	-
10.310 10.310	National Institute of Food and Agriculture National Institute of Food and Agriculture	Western Illinois University California State University - East Bay	20196901229851 20156900332075	97,530 31.344	-
10.310	National Institute of Food and Agriculture	•	20136900332075	31,344	-
10.310	National Institute of Food and Agriculture National Institute of Food and Agriculture	Utah State University Washington State Department of Agriculture	20206701731193	3,141 1,772	-
10.320	National Institute of Food and Agriculture	Oklahoma State University	20193850230120	46,058	-
10.328	National Institute of Food and Agriculture	lowa State Univ	20187002028877	1,785	-
10.328	National Institute of Food and Agriculture	Iowa State Univ	20217002035732	2.657	-
10.329	National Institute of Food and Agriculture	Iowa State Univ	20195130030248	10,248	-
10.329	National Institute of Food and Agriculture	Michigan State Univ	2018-70006-28883	6,983	-
10.329	US Department of Agriculture	Michigan State Univ	2018-70006-28883	7,344	
10.902	Natural Resources Conservation Service	The Nature Conservancy	68-3A75-16-1281/68-7103-17-101	4,080	_
10.931	Natural Resources Conservation Service	The Nature Conservancy	68-3A75-16-1281/68-7103-17-101	6,120	
10.RD	USDA Food and Nutrition Service	Univ of Kentucky	12319818C0010	5,467	_
10.112	OSE/N1 OSC and Nation Scivice	On to Renderly	1201001000010	0,401	
	Total Department of Agriculture Pass-Through Awards			3,191,737	24,418
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Department of Commerce					
11.417	National Oceanic & Atmospheric Administration	Purdue Univ	NA20OAR4170343	57,867	-
11.417	National Oceanic & Atmospheric Administration	Univ of Minnesota	NA19OAR4170388	7,903	-
11.417	National Oceanic & Atmospheric Administration	University of Illinois	NA19OAR4170391	4,801	-
11.417	National Oceanic & Atmospheric Administration	Southern Illinois Univ	NA18OAR4170082	10,944	-
11.419	National Oceanic & Atmospheric Administration	OH Dept of Natural Resources	NA20NOS4190084	74,007	-
11.419	National Oceanic & Atmospheric Administration	OH Dept of Natural Resources	NA20NOS4190086	72,424	59,864
11.420	National Oceanic & Atmospheric Administration	OH Dept of Natural Resources	NA18NOS4200079	55,900	-
11.431	National Oceanic & Atmospheric Administration	Univ Corp for Atmospheric Res	NA20OAR4310253C	127,288	-
11.432	National Oceanic & Atmospheric Administration	Univ of Michigan	NA17OAR4320152	75,683	-
11.478	National Oceanic & Atmospheric Administration	Bowling Green State University	NA19NOS4780190	22,885	-
11.RD	US Department of Commerce	Parallax Advanced Research Corporation	ED19HDQ0200061	32,690	-
	Total Department of Commerce Pass-Through Awards			542,392	59,864
Department of Defense				,	•
12.300	Air Force Research Laboratory	Defense Associated Graduate Student Innovators	FA8650-19-2-9300	482,726	
12.300	Naval Surface Warfare Center	Univ of Texas at Austin	N00164-20-1-2003	482,726 28,547	-
12.300	Hava Sallace Wallale Cellel	OTHY OF TEAGS AT AUSUIT	1400 104-20-1-2003	20,047	-

	Assistance Listin	•		Additional Award	Federal	Expenditures
	Number	ভ Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
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Research a	and Development	Cluster —				
Pass-throug	gh from other sou	rces:				
	12.300	NSWC Crane	Univ of Tennessee	N00164-20-1-2008	41,089	-
	12.300	Office of Naval Research	Florida State Univ	N00014-18-1-2506	249,335	-
	12.300	Office of Naval Research	Purdue Univ	N00014-17-1-2374	149,781	-
	12.300	Office of Naval Research	State University of New York Polytechnic Institute	N00014-19-1-2210	17,674	-
	12.300	Office of Naval Research	Univ of Pennsylvania	N00014-17-1-2643	189,608	-
	12.300	Office of Naval Research	Univ of Tennessee	N00014-18-1-2794	186,770	-
	12.300	Office of Naval Research	Univ of Texas at Austin	N00014-21-1-2377	283,702	-
	12.300	Office of Naval Research	University of California, Santa Barbara	N00014-18-1-2704	(24,969)	-
	12.300	Office of Naval Research	University Of Notre Dame	N00014-21-1-2126	96,107	-
	12.300	Office of Naval Research	University of Texas at Dallas	N00014-17-1-2995	192,119	-
	12.300	Office of Naval Research	Virginia Polytechnic Inst	N00014-19-1-2621	157,651	-
	12.351	Defense Threat Reduction Agency	Collaborations Pharmaceuticals, Inc.	HDTRA11910020	161,098	896
	12.351	Defense Threat Reduction Agency	Univ of Michigan	HDTRA12110012	62,345	-
	12.420	Army Medical Research Acquisition Activity	Cedars-Sinai Medical Center	W81XWH1910888	60,129	-
	12.420	Army Medical Research Acquisition Activity	Children's Hospital Medical Center of Cincinnati	W81XWH1810269	3,850	-
	12.420	Army Medical Research Acquisition Activity	Dartmouth College	W81XWH1820076	37	-
	12.420	Army Medical Research Acquisition Activity	Stanford Univ	W81XWH1910683	18,518	-
	12.420	Army Medical Research Acquisition Activity	Univ of Missouri	W81XWH2110173	68,465	-
	12.420	Army Medical Research Acquisition Activity	Univ of Pennsylvania	W81XWH1620004	16,849	-
	12.420	Army Medical Research Acquisition Activity	Univ of Utah	W81XWH1820064	635,149	-
	12.420	Army Medical Research Acquisition Activity	Univ of Utah	W81XWH1820022	813,800	-
	12.420	Army Medical Research Acquisition Activity	Wake Forest Univ	W81XWH1420004	1,895	-
	12.420	Army Medical Research Acquisition Activity	University of South Alabama	W81XWH2010618	3,839	-
	12.420	Army Medical Research and Materiel Command	Rutgers Univ	W81XWH2010194	73,602	-
	12.420	Army Medical Research and Materiel Command	Rutgers Univ	W81XWH1620004	89,152	-
	12.420	Army Research Office	University Of Colorado	W81XWH1810727	15,475	-
	12.420	US Department of Defense	Ohio University	W81XWH1810707	215	-
	12.420	US Department of Defense	Univ of California San Francisco	W81XWH2010245	59,459	-
	12.420	US Department of Defense	Univ of Texas at Arlington	W81XWH1810684	2,102	-
	12.420	US Department of Defense	Washington Univ	W81XWH1510101	10,373	-
	12.420	US Department of Defense	Univ of North Carolina - Chapel Hill	W81XWH1910609	18,885	-
	12.431	Army Research Office	State University of New York Polytechnic Institute	W911NF1820136	7	-
	12.431	Army Research Office	Univ of South Carolina	W911NF1910281	26,212	-
	12.431	United States Army	Georgia Inst of Tech	W911W61720002	53,684	-
	12.600	Department of Defense Office of Economic Adjustment	Ohio Development Services Agency	OEA-20-F-0004	209,955	-
	12.617	US Department of Defense	Univ of Michigan	HQ00051910044	16,775	-
	12.630	Air Force Research Laboratory	Defense Associated Graduate Student Innovators	FA8650-12-2-7248	656	-
	12.630	Air Force Research Laboratory	Defense Associated Graduate Student Innovators	FA8650-19-2-9300	94,067	-
	12.630	Army Contracting Command	Advanced Robotics for Manufacturing Institute	W911NF1730004	311,323	118,875
	12.630	Office of Naval Research	American Lightweight Materials Manufacturing Innovation Institute	N00014-14-2-0002	161	-
	12.630	United States Army	Georgia Inst of Tech	W911W62120001	36,401	-
	12.750	Uniformed Services University of the Health Sciences	Henry M Jackson Fdn	HU0001-16-2-0006	(3,124)	-
	12.750	Uniformed Services University of the Health Sciences	Henry M Jackson Fdn	HU0001-17-2-0008	3,755	-
	12.750	Uniformed Services University of the Health Sciences	Henry M Jackson Fdn for the Advn Mil Med	HU0001-20-2-0008	(44,037)	-
	12.750	Uniformed Services University of the Health Sciences	Henry M Jackson Fdn for the Advn Mil Med	HU0001-21-2-0002	49,703	-
	12.750	Uniformed Services University of the Health Sciences	Henry M Jackson Fdn for the Advn Mil Med	HU0001-20-2-0050	74,475	-
	12.750	Uniformed Services University of the Health Sciences	Henry M Jackson Fdn for the Advn Mil Med	HU0001-21-2-0027	27,769	-
	12.800	Air Force Office of Scientific Research	Florida A&M Univ	FA9550-20-1-0199	25,677	-
	12.800	Air Force Office of Scientific Research	Florida International University	FA9550-19-1-0349	140,507	-
	12.800	Air Force Office of Scientific Research	Indiana Univ	FA9550-20-1-0027	70,203	-
	12.800	Air Force Office of Scientific Research	Princeton Univ	FA9550-20-1-0177	32,476	-
	12.800	Air Force Office of Scientific Research	Princeton Univ	FA9550-22-1-0203	6,228	-
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	Assistance Lis	ting		Additional Award	Federal	Expenditures
	Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
	rch and Developme					
Pass-tr	hrough from other se	ources:				
	12.800	Air Force Office of Scientific Research	Syracuse University	FA9550-18-S-0003	113,402	-
	12.800	Air Force Office of Scientific Research	Univ of North Texas	FA9550-20-1-0169	45,556	-
	12.800	Air Force Office of Scientific Research	Univ of Washington	FA9550-19-1-0390	392,873	-
	12.800	Air Force Office of Scientific Research	University of California, Santa Barbara	FA9550-18-1-0479	833,993	-
	12.800	Air Force Office of Scientific Research	University of Central Florida	FA9550-19-1-0307	375,235	-
	12.800	Air Force Office of Scientific Research	University Of Colorado	FA8650-20-2-6089	49,037	-
	12.800	Air Force Office of Scientific Research	Vanderbilt Univ	FA9550-22-1-0012	83,255	-
	12.800	Air Force Office of Scientific Research	University of Oxford	FA9550-18-1-7000	44,589	-
	12.800	United States Air Force	National Center for Defense Manufacturing and Machining	FA8650-16-2-5700	158,720	66,875
	12.800	United States Air Force	National Center for Defense Manufacturing and Machining	FA8650-20-2-5700	237,965	-
	12.800	United States Air Force	Fabrisonic, LLC	FA8650-20-2-5700	106,818	-
	12.910	Defense Advanced Research Projects Agency	The Research Institute at Nationwide Children's Hospital	HR00112020032	20,700	-
	12.RD	Air Force Office of Scientific Research	Innoveering, LLC.	FA9550-19-C-0007	(7,193)	-
	12.RD	Air Force Office of Scientific Research	Srico, Inc	FA8649-20-C-0336	105,347	-
	12.RD	Air Force Office of Scientific Research	Ubihere	FA8649-21-P-0188	23,040	-
	12.RD	Air Force Office of Scientific Research	Univ of Tennessee	FA9101-15-D-0002	77,102	-
	12.RD	Air Force Research Laboratory	Applied Impulse Incorporated	FA8649-21-P-0228	58,481	-
	12.RD	Air Force Research Laboratory	ARCTOS Technology Solutions, LLC	FA8650-21-D-2014	3,593	-
	12.RD	Air Force Research Laboratory	Asymmetric Technologies, LLC	FA8649-21-P-0090	3,282	-
	12.RD	Air Force Research Laboratory	Battelle Memorial Inst	FA8650-15-D-1953	(639)	-
	12.RD	Air Force Research Laboratory	Battle Sight Technologies LLC	FA8649-21-P-1606	83,728	-
	12.RD	Air Force Research Laboratory	Bloodstone Division	FA8649-20-P-0982	7,345	-
	12.RD	Air Force Research Laboratory	CAL Analytics, LLC	FA8649-21-P-0197	38,619	-
	12.RD	Air Force Research Laboratory	Centauri, Inc	FA8650-18-D-1614	74,076	-
	12.RD	Air Force Research Laboratory	Defense Engineering Corporation	FA8650-18-C-1681	171,102	-
	12.RD	Air Force Research Laboratory	Electric Power Systems	FA8649-21-P-0195	38,026	-
	12.RD	Air Force Research Laboratory	Etegent Technologies, Ltd.	FA8649-21-P-1311	4,258	-
	12.RD	Air Force Research Laboratory	Infinity Labs LLC	FA8649-21-P-1622	146,156	-
	12.RD	Air Force Research Laboratory	Infinity Labs LLC	FA8649-21-P-1628	161,281	-
	12.RD	Air Force Research Laboratory	Innovative Scientific Solutions Inc	FA8650-14-D-2414	4,844	-
	12.RD	Air Force Research Laboratory	Kitware, Inc	FA8649-20-P-0332	(3,411)	-
	12.RD	Air Force Research Laboratory	Massachusetts Inst Tech - Lincoln Lab	FA8702-15-D-0001	40,449	-
	12.RD	Air Force Research Laboratory	Metron, Inc.	FA8649-21-C-0003	70,096	-
	12.RD	Air Force Research Laboratory	Nimbis Services, Inc.	FA8650-20-F-1894	9,745	-
	12.RD	Air Force Research Laboratory	Northrop Grumman Corp	FA8630-18-C-1020	824,941	-
	12.RD	Air Force Research Laboratory	Parallax Advanced Research Corporation	FA8650-15-D-6583	167,316	-
	12.RD	Air Force Research Laboratory	Perduco Group Inc.	Subcontract No. 10060.2019.019	154,665	-
	12.RD	Air Force Research Laboratory	Polaris Semiconductor	FA8649-21-P-0215	24,428	-
	12.RD	Air Force Research Laboratory	PreTalen	FA8650-18-C-1650	9	-
	12.RD	Air Force Research Laboratory	Radiance Technologies, Inc.	47QFLA19D0003	23,146	-
	12.RD	Air Force Research Laboratory	SciFi Innovations, LLC	FA8649-20-P-0998	22,527	-
	12.RD	Air Force Research Laboratory	SenselCs Ltd.	WBI-IL-2019-10-002	37,583	-
	12.RD	Air Force Research Laboratory	SK Infrared	FA8649-20-P-0996	93,125	-
	12.RD	Air Force Research Laboratory	SolAero Technologies, Corp.	FA9453-19-C-1001	72,342	-
	12.RD	Air Force Research Laboratory	Tangram Flex, Inc.	FA8649-21-P-0206	117,227	-
	12.RD	Air Force Research Laboratory	TeraProbes Inc	FA9550-20-P-0003	21,666	-
	12.RD	Air Force Research Laboratory	Terves Inc.	FA8649-21-P-0011	25,143	-
	12.RD	Air Force Research Laboratory	Trelleborg Group	FA8650-18-C-5294	27,029	-
	12.RD	Air Force Research Laboratory	Ubihere	FA8649-19-P-A050	(82)	-
	12.RD	Air Force Research Laboratory	Ubihere	FA8649-22-P-0011	41,235	-
	12.RD	Air Force Research Laboratory	UES Inc	FA8650-15-D-5405	16,198	-
	12.RD	Air Force Research Laboratory	UES Inc	FA8650-16-D-5851; FA865-21-F-5803	52,708	-

	Assistance Listin	ng		Additional Award	Federal	Expenditures
	Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Researc	n and Development	Cluster —				
Pass-thr	ough from other sou	urces:				
	12.RD	Air Force Research Laboratory	UES Inc	FA8650-21-C-6252	124,065	-
	12.RD	Air Force Research Laboratory	United Aircraft Technologies, Inc	FA8649-22-P-0578	59,834	-
	12.RD	Air Force Research Laboratory	Univ of Dayton	FA8650-20-D-5211	90,909	-
	12.RD	Air Force Research Laboratory	Univ of Florida	FA8650-20-C-1719	792,142	-
	12.RD	Air Force Research Laboratory	Univ of Florida	FA8650-18-F-1605	4,461	-
	12.RD	Air Force Research Laboratory	Univ of Florida	FA8650-21-F-1152	92,635	-
	12.RD	Air Force Research Laboratory	West Virginia Univ	FA8075-16-D-0010	491	-
	12.RD	Air Force Research Laboratory	Wright State Univ	FA8650-19-C-1712	427,850	-
	12.RD	Air Force Research Laboratory	Wyle Laboratories	FA8075-14-D-0025	82,592	-
	12.RD	Air Force Research Laboratory	Wyle Laboratories	FA8075-18-D-0015	123,235	-
	12.RD	Air Force Research Laboratory	MTI Systems Inc	FA8649-21-P-0110	45,000	-
	12.RD	Air Force Research Laboratory	Addiguru, LLC	FA8649-21-P-1344	21,971	-
	12.RD	Air Force Research Laboratory	Addiguru, LLC	FA8649-22-P-0696	70,969	-
	12.RD	Air Force Research Laboratory	Piasecki Aircraft Corporation	FA8649-21-P-0058	39,408	-
	12.RD	Air Force Research Laboratory	PointPro, Inc	FA8649-21-P-1399	10,565	-
	12.RD	Air Force Research Laboratory	PointPro, Inc	FA8649-22-P-0701	29,310	_
	12.RD	Air Force Research Laboratory	Edison Welding Inst Inc	Subcontract No. 221051	83,653	_
	12.RD	Air Force Research Laboratory	Infoscitex Corporation	FA8650-20-D-6207	10,803	_
	12.RD	Air Force Research Laboratory	NEOEx	FA8649-21-P-1643	44,560	-
	12.RD	Air Force Research Laboratory	Open Additive, LLC	FA8649-22-P-0556	64,056	_
	12.RD	Army Contracting Command	MRIGlobal	W15QKN-16-9-1002	1,997,087	125,679
	12.RD	Army Contracting Command	Potomac Research LLC	W31P4Q-20-C-0003	141,810	120,070
	12.RD	Army Contracting Command	Potomac Research LLC	W31P4Q-21-C-0052	58,466	_
	12.RD	Army Contracting Command	SK Infrared	W909MY-20-C-0002	32,161	_
	12.RD	Army Medical Research Acquisition Activity	Guild BioSciences	W81XWH21P0050	60,774	_
	12.RD	Army Medical Research Acquisition Activity	Guild BioSciences	W81XWH22C0025	917	
	12.RD 12.RD	Army Medical Research Acquisition Activity Army Medical Research Acquisition Activity	Moffitt (H Lee) Cancer Center and Research Institute	W81XWH1610385	71,477	-
	12.RD	Army Medical Research Acquisition Activity	Switchbox Inc.	W81XWH20C0045	96.890	_
	12.RD	Army Medical Research Acquisition Activity	Univ of Pittsburgh	W81XWH16D0024 - W81XWH18F0426	30,812	
	12.RD 12.RD	Army Medical Research Acquisition Activity Army Medical Research Acquisition Activity	University Of Colorado	W81XWH10D0024 - W81XWH10F0420 W81XWH2190011	22.546	-
	12.RD 12.RD	Army Medical Research and Materiel Command			294,835	-
	12.RD 12.RD	· ·	Switchbox Inc. Terves Inc.	W81XWH20C0007 W911OX20C0001	100,980	-
	12.RD 12.RD	Army Research, Development and Engineering Command Defense Advanced Research Projects Agency	Yale Univ	N66001-17-C-4012	325,630	-
						-
	12.RD 12.RD	Defense Advanced Research Projects Agency	Soterix Medical	W912CG21C0014	53,326	-
		Defense Threat Reduction Agency	AwareAbility, LLC	HDTRA121P0004	58,660	-
	12.RD	Naval Air Systems Command	Corrdesa LLC	N68335-18-C-0152	54,182	-
	12.RD	Naval Air Warfare Center Aircraft Division Naval Air Warfare Center Aircraft Division	Battelle Memorial Inst	N68335-18-C-0179	1,940	-
	12.RD		Combustion Research and Flow Technology, Inc.	N68335-18-C-0595	(3,691)	-
	12.RD	Naval Air Warfare Center Aircraft Division	Hepburn and Sons LLC	N68335-20-C-0303	79,621	-
	12.RD	Naval Air Warfare Center Aircraft Division	SenselCs Ltd.	N68335-22-C-0045	4,031	-
	12.RD	Naval Air Warfare Center Aircraft Division	Technical Data Analysis, Inc.	N68335-18-C-0076	16,467	-
	12.RD	Office of Naval Research	Advanced Technology International	N00024-18-3-2231	(32,646)	(20,927)
	12.RD	Office of Naval Research	West Virginia Univ	N00014-19-C-2042	8,936	-
	12.RD	Office of Naval Research	Edison Welding Inst Inc	N00014-21-C-1074	885	-
	12.RD	Office of Naval Research	ATC Materials	N00014-21-9-0006	38,284	-
	12.RD	United States Air Force	3D Aerial Solutions, LLC	FA8751-19-C-A032	11,926	-
	12.RD	United States Air Force	Azimuth Corporation	FA8650-16-D-5404	8,137	-
	12.RD	United States Air Force	Battelle Memorial Inst	GS00Q14OADU402	8,693	-
	12.RD	United States Air Force	GhostWave	FA8649-21-P-0010	3,510	-
	12.RD	United States Air Force	Parallax Advanced Research Corporation	FA8650-19-3-9341	94,403	85,000
	12.RD	United States Air Force	United Aircraft Technologies, Inc	FA8649-21-P-0157	9,532	-
	12.RD	United States Air Force	LSP Technologies, Inc.	FA8649-21-P-0608	12,159	-

Number	isting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developme	ent Cluster —				
Pass-through from other	sources:				
12.RD	United States Air Force	BMNT Inc	PRELIMINARY AWARD	24,649	_
12.RD	United States Air Force	Nodis	FA8649-21-P-1499	225,000	_
12.RD	United States Army	Concepts to Systems Inc.	W911W6-18-C-0029	(69,387)	_
12.RD	United States Army	Purdue Univ	W52P1J-20-9-3009	103,838	_
12.RD	United States Army	SenselCs Ltd.	W911QX-20-C-0007	41,608	_
12.RD	United States Army	SK Infrared	W909MY-20-C-0002	98,292	_
12.RD	United States Army	Triton Systems, Inc.	W81XWH-17-C-0131	49,212	-
12.RD	United States Army	Univ of Massachusetts - Lowell	W50NH9-21-C-0015	13,801	_
12.RD	United States Army	Wolfspeed	W9124P-19-9-0001	270,907	_
12.RD	United States Navy	Innoveering, LLC.	N68335-21-C-0070	90,771	-
12.RD	United States Navy	Triton Systems, Inc.	N68335-21-C-0515	19,465	_
12.RD	US Department of Defense	Arizona State Univ	N66001-20-C-4020	133,167	-
12.RD	US Department of Defense	BWX Technologies, Inc	HQ00342090012	223,608	_
12.RD	US Department of Defense	Global Res & Dev Inc	W81XWH19C0040	140,120	_
12.RD	US Department of Defense	North Carolina Agricultural and Technical State University	HQ00342190007	103,299	_
12.RD	US Department of Defense	OH Nat Guard	W9136421P0022	19,508	_
12.RD	US Department of Defense	Stevens Institute of Technology	HQ003419D0003	90,758	_
12.RD	US Department of Defense	West Virginia Univ	H9240521C0004	844	_
12.RD	US Department of Defense	Steel Founders Society of America	SP4701-20-C-0076	9,787	-
12.RD	Army Corps of Engineers	North Carolina State Univ	W912HQ-21-C-0044	73,368	-
12.RD	Air Force Institute of Technology	Texas A & M Univ	HQ00342190007	58,529	-
	Total Department of Defense Pass-Through Awards			18,193,319	376,398
Department of Housing	and Urban Development				
14.900	US Department of Housing and Urban Development	Columbia University	NYHHU0042-18	94,651	-
	Total Boundaries of Houseless and Habon Boundaries of Book Thouse				
	Total Department of Housing and Urban Development Pass-Throu	ugh Awards		94,651	-
Department of the Inter	ior	-		,	-
Department of the Interior 15.634	•	ugh Awards OH Division of Wildlife	F18AP00041	33,743	-
15.634 15.634	ior US Fish and Wildlife Service US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife	T-2-14	33,743 3,179	- - -
15.634 15.634 15.634	US Fish and Wildlife Service US Fish and Wildlife Service US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife	T-2-14 T-2-15	33,743 3,179 25,190	· · · · · · · · · · · · · · · · · · ·
15.634 15.634	US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife	T-2-14 T-2-15 F19AF00433	33,743 3,179 25,190 1,125,726	· · · · · · · · · · · · · · · · · · ·
15.634 15.634 15.634 15.634 15.647	US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois	T-2-14 T-2-15 F19AF00433 F22AC00190	33,743 3,179 25,190 1,125,726 15,399	- - - - - -
15.634 15.634 15.634 15.634 15.647 15.662	US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks	T-2-14 T-2-15 F19AF00433	33,743 3,179 25,190 1,125,726 15,399 6,424	- - - - - -
15.634 15.634 15.634 15.634 15.647 15.662 15.939	US Fish and Wildlife Service National Park Service	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818	- - - - - - - -
15.634 15.634 15.634 15.634 15.647 15.662	US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637	33,743 3,179 25,190 1,125,726 15,399 6,424	- - - - - - - -
15.634 15.634 15.634 15.634 15.647 15.662 15.939	US Fish and Wildlife Service National Park Service	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818	- - - - - - - - -
15.634 15.634 15.634 15.634 15.647 15.662 15.939	US Fish and Wildlife Service US Department of the Interior	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589	
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945	US Fish and Wildlife Service National Park Service US Department of the Interior Total Department of the Interior Pass-Through Awards	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589	
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice	US Fish and Wildlife Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice 16.320 16.575	US Fish and Wildlife Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs US Department of Justice	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ Salvation Army Ohio Office of Attorney General	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184 2018VTBXK025 2021-VOCA-134146994	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice	US Fish and Wildlife Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs	OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice 16.320 16.575 16.585	US Fish and Wildlife Service National Park Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs US Department of Justice US Department of Justice US Department of Justice	OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ Salvation Army Ohio Office of Attorney General Montgomery County Board of Commissioners	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184 2018VTBXK025 2021-VOCA-134146994 2016DCBX0038	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	- - - -
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice 16.320 16.575 16.585	US Fish and Wildlife Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs US Department of Justice US Department of Justice	OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ Salvation Army Ohio Office of Attorney General Montgomery County Board of Commissioners	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184 2018VTBXK025 2021-VOCA-134146994 2016DCBX0038	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	- - - - -
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice 16.320 16.575 16.585	US Fish and Wildlife Service National Park Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs US Department of Justice US Department of Justice US Department of Justice	OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ Salvation Army Ohio Office of Attorney General Montgomery County Board of Commissioners	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184 2018VTBXK025 2021-VOCA-134146994 2016DCBX0038	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	- - - - -
15.634 15.634 15.634 15.634 15.647 15.662 15.939 15.945 Department of Justice 16.320 16.575 16.585 16.922	US Fish and Wildlife Service National Park Service US Department of the Interior Total Department of the Interior Pass-Through Awards Office of Justice Programs US Department of Justice US Department of Justice US Department of Justice	OH Division of Wildlife University of Illinois Cleveland Metroparks Great Basin Heritage Area Partnership Colorado State Univ Salvation Army Ohio Office of Attorney General Montgomery County Board of Commissioners	T-2-14 T-2-15 F19AF00433 F22AC00190 F18AP00637 Agreement dated 05/17/2021 P18AC01184 2018VTBXK025 2021-VOCA-134146994 2016DCBX0038	33,743 3,179 25,190 1,125,726 15,399 6,424 4,818 8,589 1,223,068	- - - - -

Assistance List Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research and Developmen	t Cluster —				
Pass-through from other so	urces:				
19.040	US Department of State	Univ of Nebraska	SIN65018CA0034	25,720	19,000
	Total Department of State Pass-Through Awards			71,597	19,000
Department of Transporta	ation				
20.200	Federal Highway Administration	Oklahoma State University	693JJ31950018	35,211	-
20.200	Federal Highway Administration	South Dakota School of Mines & Technology	DTFH61-13-H-00024	137,592	(27)
20.205	Federal Highway Administration	OH Dept of Transportation	E200942	117,949	-
20.701	US Department of Transportation	Carnegie-Mellon Univ	69A3551747111	185,829	-
20.RD	Federal Aviation Administration	Univ of Maryland	693KA9-18-D-00015	(300)	-
20.RD	Federal Aviation Administration	Univ of Maryland	693KA9-20-D-00004	76,919	-
20.RD	National Highway Traffic Safety Administration	Transportation Res Ctr Inc	693JJ918D000019	1,878,054	-
20.RD	Federal Transit Administration	National Aging and Disability Transportation Center	IL-2021-006	8,245	-
	Total Department of Transportation Pass-Through Awards			2,439,499	(27)
Department of Treasury					
21.019	Dept of Treasury	OH Dept of Administrative Services	Agreement dated 03/17/2021	35,250	-
21.019	COVID Dept of Treasury	OH Dept of Health	Contract 45502	1,623,150	1,144,582
21.019	COVID Dept of Treasury	OH Dept of Health	SOW dated 06/12/2020	10,642	12,263
21.019	Dept of Treasury	OH Dept of Health	Contract 48525	99,119	70,723
21.019	COVID Dept of Treasury	OH Environ Protection Agency	SLT0234	797,818	548,198
21.027	Dept of Treasury	Ohio Child Care Resource & Referral Association	SLFRP1055	70,153	-
21.RD	Dept of Treasury	Educational Service Center of Central Ohio	Agreement date 10/28/2020	(49)	-
	Total Department of Treasury Pass-Through Awards			2,636,083	1,775,766
General Services Adminis	stration				
39.RD	General Services Administration	Riverside Research Institute	GS05Q17BMA0011	30,269	-
	Total General Services Administration Pass-Through Awards			30,269	-
National Aeronautics and	Space Administration				
43.001	National Aeronautics and Space Administration	Columbia University	80NSSC21K1790	20,953	_
43.001	National Aeronautics and Space Administration	Iowa State Univ	80NSSC20K1789	8,444	_
43.001	National Aeronautics and Space Administration	Jet Propulsion Lab	NNN12AA01C	223.816	_
43.001	National Aeronautics and Space Administration	Jet Propulsion Lab	80NM0018D0004	36,388	-
43.001	National Aeronautics and Space Administration	Planetary Science Institute	80NSSC20K0771	94,475	-
43.001	National Aeronautics and Space Administration	Stevens Institute of Technology	80NSSC20K1118	6,817	-
43.001	National Aeronautics and Space Administration	Univ of Arizona	80NSSC22K0040	6,228	-
43.001	National Aeronautics and Space Administration	Univ of Washington	80NSSC18M0078	17,065	-
43.001	National Aeronautics and Space Administration Headquarters	Central State University	80NSSC17K0653	3,000	-
43.001	National Aeronautics and Space Administration Headquarters	Jet Propulsion Lab	NNN12AA01C	110,329	-
43.001	National Aeronautics and Space Administration Headquarters	Smithsonian Astrophysical Observatory	NAS8-03060	129,781	-
43.001	National Aeronautics and Space Administration Headquarters	Univ of Chicago	80NSSC20K1840	206,942	-
43.001	National Aeronautics and Space Administration Headquarters	Univ of Chicago	80NSSC21M0116	202,318	-
43.001	National Aeronautics and Space Administration Headquarters	University of Hawaii	80NSSC19K0597	14,325	-
43.001	National Aeronautics and Space Administration Headquarters	Univ of North Carolina - Chapel Hill	80NSSC18K1322	15,184	-
43.002	National Aeronautics and Space Administration Headquarters	University of Illinois	80NSSC19M0125	16,467	-
43.007	National Aeronautics and Space Administration	University of Illinois	80NSSC20K0629	132,728	-
43.RD	National Aeronautics and Space Administration	Hyper Tech Res Inc	80NSSC21C0540	75,025	-
43.RD	National Aeronautics and Space Administration	Paragon TEC	Eff 3/01/2021	1,093	-

THE OHIO STATE UNIVERSITY

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2022

	Assistance Listin	ig Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Research ar	nd Development	Cluster —				
Pass-throug	h from other sou	rces:				
	43.RD	National Aeronautics and Space Administration	SK Infrared	80NSSC19C0142	(5,917)	-
	43.RD	National Aeronautics and Space Administration	Univ of Michigan	NNL13AQ00C	53,556	-
	43.RD	National Aeronautics and Space Administration	Univ of Michigan	80LARC21DA003	519,432	-
	43.RD	National Aeronautics and Space Administration	California Inst of Tech	80GSFC18C0011	22,399	-
	43.RD	National Aeronautics and Space Administration	Nanoracks	PRELIMINARY AWARD	1,214	-
	43.RD	National Aeronautics and Space Administration Headquarters	Astrobotic Technology, Inc.	80NSSC20C0146	180,767	-
	43.RD	National Aeronautics and Space Administration Headquarters	HX5, LLC	80GRC020D0003	313,534	-
	43.RD	National Aeronautics and Space Administration Headquarters	SK Infrared	80NSSC19C0142	9,042	-
	43.RD	National Aeronautics and Space Administration Headquarters	Space Telescope Sci Inst	NAS5-26555	178,187	-
				_		
		Total National Aeronautics and Space Administration Pass-Through Awards			2,593,592	-
National En	ndowment for th	ne Humanities				
	45.162	National Endowment For The Humanities	Teagle Foundation	AH-274009-20	25,242	-
				-		
		Total National Endowment for the Humanities Pass-Through Awards			25,242	-
National Sc	cience Foundation	on				
	47.041	National Science Foundation	Univ of Nebraska	2124376	10,236	-
	47.041	National Science Foundation	ZeoVation	2025819	951	-
	47.041	National Science Foundation	University-Industry Demonstration Partnership	2048419	70,727	-
	47.041	National Science Foundation Div of Electrical, Communications and CyberSys	Carnegie-Mellon Univ	1952907	109,888	-
	47.041	National Science Foundation Div of Electrical, Communications and CyberSys	Florida International University	1734851	24,768	-
	47.041	National Science Foundation Div of Electrical, Communications and CyberSys	North Carolina State Univ	2029974	18,814	-
	47.041	National Science Foundation Div of Engineering Education and Centers	Campbell University	2025093	10,962	-
	47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems	Texas A & M Univ	2034048	9.614	-
	47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems	Univ of Florida	1933054	32.638	-
	47.041	NSF Div of Chemical, Bioengineering, Environmental, and Transport Systems	American University	2115405	112.251	-
	47.041	NSF Division of Civil, Mechanical and Manufacturing Innovation	Univ of Michigan	1760291	1,505	_
	47.041	NSF Division of Civil, Mechanical and Manufacturing Innovation	Univ of New Hampshire	1727490	18,211	_
	47.041	NSF Division of Industrial Innovation and Partnerships	AwareAbility, LLC	1853115	43,575	_
	47.041	NSF Division of Industrial Innovation and Partnerships	Dynamic Entropy Technology LLC	2032325	49,243	
	47.041	National Science Foundation Div of Chemical & Transport Systems	Yale Univ	2129963	26,852	
	47.041	National Science Foundation Div of Civil & Mechanical Structures	Univ of Southern California	1832711	18,302	_
	47.041	National Science Foundation Div of Civil & Mechanical Structures National Science Foundation Directorate for Engineering	New Mexico State University	2124189	4,916	-
						-
	47.049	National Science Foundation Div of Chemistry	University of California at San Diego	1807971	110,439	-
	47.049	National Science Foundation Div of Materials Research	Univ of Virginia	1629237	20,509	-
	47.049	National Science Foundation Div of Physics	Cornell University	1946735	199,604	-
	47.049	National Science Foundation Div of Physics	Princeton Univ	1624356	10,109	-
	47.049	National Science Foundation Div of Physics	Univ of Nebraska	2121686	8,690	-
	47.049	National Science Foundation Div of Astronomical Sciences	Nat Radio Astronomy Observatory	1519126	30,447	-
	47.050	National Science Foundation	Woods Hole Oceanographic Inst	2019589	129,344	-
	47.050	National Science Foundation Directorate for Geosciences	Univ of Minnesota	1559691	575,245	-
	47.050	National Science Foundation Directorate for Geosciences	Univ of North Carolina - Chapel Hill	1715638	35,622	-
	47.050	National Science Foundation Div of Earth Sciences	Univ of Southern California	1600087	17,075	-
	47.050	National Science Foundation Div of Ocean Sciences	Bowling Green State University	1840715	42,828	-
	47.050	National Science Foundation Div of Ocean Sciences	Columbia University	1450528	87,931	-
	47.050	National Science Foundation Division of Polar Programs	Univ of Kentucky	1850988	97,044	-
	47.070	National Science Foundation	Iowa State Univ	1954556	13,896	-
	47.070	National Science Foundation	University of California - Santa Cruz	2040800	39,520	-
	47.070	National Science Foundation	Augusta University	2007793	26,159	-
	47.070	National Science Foundation	PAWR, LLC	2130889	56,754	-

Assistance List Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Number	rederal Agency Sponsor	rass-illiough spolisoi	identification	Expenditures	to Subrecipients
Research and Developmer	nt Cluster —				
Pass-through from other so	purces:				
47.070	National Science Foundation Directorate for Computer & Info Sciences & Eng	Georgia Inst of Tech	1718771	24,634	-
47.070	National Science Foundation Directorate for Computer & Info Sciences & Eng	Univ of California-Davis	1737573	43,507	-
47.070	National Science Foundation Div of Computer and Network Systems	Univ of Texas at Austin	1901632	(5,609)	-
47.070	National Science Foundation Div of Computer and Network Systems	Univ of Texas at El Paso	1923956	18,507	-
47.070	National Science Foundation Div of Computer and Network Systems	Univ of Texas at El Paso	2137791	50,536	-
47.070	National Science Foundation Div of Human Resource Development	Univ of Texas at El Paso	1834620	97,711	-
47.070	National Science Foundation Div of Information and Intelligent Systems	Univ of Pennsylvania	1827472	95,579	-
47.070	National Science Foundation Div of Information and Intelligent Systems	University of Illinois	1939743	55,718	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure	Univ of Texas at Austin	1854828	524,870	-
47.070	National Science Foundation Division of Advanced Cyberinfrastructure	University of Illinois	1548562	146,426	41,185
47.070	National Science Foundation Division of Advanced Cyberinfrastructure	Virginia Polytechnic Inst	1547580	26,773	-
47.070	National Science Foundation Office of Cyberinfrastructure	Ohio University	2004601	59,897	-
47.070	National Science Foundation Office of Cyberinfrastructure	Univ of Texas at Austin	1663578	213,339	-
47.070	National Science Foundation Office of Cyberinfrastructure	Washington Univ	1640899	11,145	-
47.070	NSF Division of Industrial Innovation and Partnerships	Wright State Univ	1539960	21,061	-
47.074	National Science Foundation	Univ of Wyoming	1921562	67,640	7,741
47.074	National Science Foundation Directorate for Biological Sciences	Univ of Tennessee	1539903	4,280	-
47.074	National Science Foundation Div of Biological Infrastructure	Purdue Univ	1901932	449	-
47.074	National Science Foundation Div of Integrative Organismal Biology	South Dakota State University	1546869	61,022	-
47.075	National Science Foundation	University Of Colorado	2121120	15,045	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	Univ of Nebraska	1856040	4,414	-
47.075	National Science Foundation Div of Behavioral & Cognitive Sciences	University at Buffalo	2026088	47,243	-
47.075	National Science Foundation Div of Social & Economic Sciences	Nat Bur Econ Res	1949489	34,855	-
47.075	National Science Foundation Div of Social & Economic Sciences	Northwestern University	2031705	29,336	-
47.075	National Science Foundation Div of Social & Economic Sciences	Univ of Missouri	2021600	5,382	-
47.075	National Science Foundation Div of Social & Economic Sciences	Vanderbilt Univ	1851690	40,711	-
47.076	National Science Foundation Directorate for Education & Human Resources	Association of Public and Land-grant Universities	1624610	1,776	-
47.076	National Science Foundation Directorate for Education & Human Resources	Chicago State University	1826719	29,208	-
47.076	National Science Foundation Directorate for Education & Human Resources	Northern Arizona University	2040736	10,008	-
47.076	National Science Foundation Directorate for Education & Human Resources	Vanderbilt Univ	1742138	25,225	-
47.076	National Science Foundation Div of Human Resource Development	Indiana Univ	1826626	2,537	_
47.076	National Science Foundation Div of Human Resource Development	North Dakota State Univ	1500604	26,654	_
47.076	National Science Foundation Div of Human Resource Development	Auburn University	2119902	50,019	_
47.076	NSF Division of Research on Learning in Formal and Informal Settings	Ohio Northern University	1812823	42,032	_
47.076	NSF Division of Research on Learning in Formal and Informal Settings	San Jose State University	1949458	46,239	_
47.076	NSF Division of Research on Learning in Formal and Informal Settings	Univ of Pennsylvania	2101163	19.096	_
47.076	National Science Foundation Div of Undergraduate Education	Lorain County Community College	2000539	39,422	-
	• •	, , , , , ,			
	Total National Science Foundation Pass-Through Awards			4,051,356	48,926
Department - 53/-4	Affaira				
Department of Veterans A 64.RD	Veterans Affairs	TechWerks	36C24520R0117	35,725	
04.ND	veterans Anans	recliveres	30G24320R0117	33,723	-
	Total Department of Veterans Affairs Pass-Through Awards			35,725	-
Environmental Protection	n Agency				
66.001	Environmental Protection Agency	OH Environ Protection Agency	01E01503	(4)	-
66.001	Environmental Protection Agency	OH Environ Protection Agency	03E01503	26,460	-
66.469	Environmental Protection Agency	OH Environ Protection Agency	GL-00E02964	55,418	-
66.469	Environmental Protection Agency	OH Environ Protection Agency	GL-00E55604	79,531	-
66.469	Environmental Protection Agency	The Nature Conservancy	00E02810	16,589	-
66.469	Environmental Protection Agency	The University of Akron	00E02811	34,051	-

Assistance List	•	· -	Additional Award	F	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipient
search and Developmen	nt Cluster —				
s-through from other so	purces:				
00.500	5 ·		00007704	45.404	
66.509	Environmental Protection Agency	Meharry Medical College	83927501	15,181	-
66.716	Environmental Protection Agency	eXtension	83698001	7,776	-
66.808	Environmental Protection Agency	Solid Waste Authority Of Central Ohio	00E02940	5,917	-
66.RD	Environmental Protection Agency	Res Triangle Inst	68HERH19D0030	33,313	-
66.RD	Environmental Protection Agency	Tetra Tech EM Inc.	100-WTR-T96115	60,360	-
66.RD	Environmental Protection Agency	Aptim Corp.	68HERC19D0009	8,308	-
	Total Environmental Protection Agency Pass-Through Awards			342,900	-
partment of Energy 81.049	US Department of Energy	Cornell University	DE-SC0019250	40,520	_
81.049	US Department of Energy	Euclid Beamlabs, LLC	DE-SC0021734	40,520	_
81.049	US Department of Energy	GeneSiC Semiconductor Inc.	DE-SC0021734 DE-SC0017820	84,737	-
81.049	US Department of Energy US Department of Energy	Hyper Tech Res Inc	DE-SC00177620 DE-SC0017755	18.457	-
81.049	US Department of Energy		DE-SC00117755 DE-SC0021286		-
	,	Illinois State University		65,929	-
81.049	US Department of Energy	Louisiana State University	DE-SC0012462	329,951	-
81.049	US Department of Energy	Michigan State Univ	DE-SC0018083	75,156	-
81.049	US Department of Energy	Nexceris	DE-SC0020809	55,216	-
81.049	US Department of Energy	Northwestern University	DE-SC0021314	252,025	
81.049	US Department of Energy	Ntre Tech LLC	DE-SC0021900	14,406	
81.049	US Department of Energy	Tech4Imaging LLC	DE-SC0018758	94,182	
81.049	US Department of Energy	Terves Inc.	DE-SC0020806	18,114	
81.049	US Department of Energy	Univ of Florida	DE-FG02-03ER15478	29,242	
81.049	US Department of Energy	Univ of Michigan	DE-SC0001939	(2,644)	
81.049	US Department of Energy	Univ of Michigan	DE-SC0020232	170,644	
81.049	US Department of Energy	Univ of Wisconsin	DE-SC0020283	106,734	
81.049	US Department of Energy	University of California at San Diego	DE-SC0017981	15,600	
81.049	US Department of Energy	XUV Lasers	DE-SC0019900	186,062	
81.049	US Department of Energy	Univ of Massachusetts - Amherst	DE-SC0021630	4,997	
81.049	US Department of Energy	RadiaBeam Technologies, LLC.	DE-SC0022387	13,422	
81.086	US Department of Energy	Ford Motor Company	DE-EE0008458	118,255	
81.086	US Department of Energy	General Motors Corp	DE-EE0007285	13,039	
81.086	US Department of Energy	GeneSiC Semiconductor Inc.	DE-EE0006521	(11,645)	
81.086	US Department of Energy	Lumileds	DE-EE0009163	180,207	
81.086	US Department of Energy	Nexceris	DE-EE0008446	203,653	
81.086	US Department of Energy	North Carolina State Univ	DE-EE0006521	26,805	37,4
81.086	US Department of Energy	Stone Mountain Technologies Inc	DE-EE0008687	37,794	
81.086	US Department of Energy	Toshiba Corporation	DE-EE0006521	(38)	
81.086	US Department of Energy	US Automotive Material Partnership	DE-EE0007756	(3,574)	
81.086	US Department of Energy	Clemson University	DE-EE0009656	145,756	
81.087	US Department of Energy	Ntre Tech LLC	DE-EE0009282	19,670	
81.087	US Department of Energy	Sustainable Manufacturing Innovation Alliance	DE-EE0007897	444,283	16,0
81.087	US Department of Energy	Univ of Delaware	DE-EE0009344	80,899	,
81.089	National Energy Technology Laboratory	Univ of Texas at Austin	DEFE0023919	126,480	
81.089	US Department of Energy	DNV GL USA Inc	DE-FE0023919 DE-FE0031631	27,927	
			DE-FE0031858		
81.089	US Department of Energy	Tech4Imaging LLC		127,006	
81.089	US Department of Energy	Gas Tech Inst	DE-FE0031946	242,511	
81.113	US Department of Energy	Georgia Inst of Tech	DE-NA0003921	611,458	
81.121	US Department of Energy	Arizona State Univ	DE-NE0008864	42,247	
81.121	US Department of Energy	Univ of Massachusetts - Lowell	DE-NE0008711	110,471	
81.121	US Department of Energy	Univ of Tennessee	DE-NE0008896	137,404	
81.121	US Department of Energy	Virginia Polytechnic Inst	DE-NE0008963	64,337	

Assistance	•		Additional Award	Federal	Expenditures
Numb	per Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Develop					
Pass-through from other	er sources:				
81.121	US Department of Energy	Rensselaer Polytechnic Institute	DE-NE0008760	40.048	_
81.124	US Department of Energy	University of Illinois	DE-NA0002374	710	_
81.135	Advanced Research Projects Agency-Energy	Duke Univ	DE-AR0001283	99,158	-
81.135	Advanced Research Projects Agency-Energy	Hyper Tech Res Inc	DE-AR0001358	366.076	_
81.135	Advanced Research Projects Agency-Energy	Hyper Tech Res Inc	DE-AR0001460	80,213	-
81.135	US Department of Energy	North Carolina State Univ	DE-AR000976	13,813	_
81.135	US Department of Energy	State University of New York Polytechnic Institute	DE-AR0001028	165,827	_
81.135	US Department of Energy	Univ of Maryland	DE-AR0001025	154.492	_
81.RD	US Department of Energy	Alliance for Sustainable Energy, LLC	DE-AC36-08GO28308	588,677	_
81.RD	US Department of Energy	Battelle Energy Alliance, LLC	DE-AC07-05ID14517	751,257	_
81.RD	US Department of Energy	Brookhaven Sci Assoc, LLC	DE-AC02-98CH10886	183,138	
81.RD	US Department of Energy	Brookhaven Sci Assoc, LLC	DE-SC0012704	5,000	
81.RD	US Department of Energy	General Motors Corp	DE-EE0008877	266,442	-
81.RD		·	DE-AC07-05ID14517	76,493	-
	US Department of Energy	Idaho National Laboratory			209.939
81.RD	US Department of Energy	Lawrence Berkeley National Laboratory	DE-AC02-05CH11231	869,020	
81.RD	US Department of Energy	Lawrence Livermore National Laboratory	DE-AC52-07NA27344	697,615	-
81.RD	US Department of Energy	Los Alamos National Laboratory	89233218CNA000001	90,358	-
81.RD	COVID US Department of Energy	Los Alamos National Laboratory	DE-AC52-06NA25396	347,319	-
81.RD	US Department of Energy	Nat Renewable Energy Lab	DE-AC36-08GO28308	20,550	-
81.RD	US Department of Energy	Oak Ridge Associated Universities	89243318CFE0000003	25,147	-
81.RD	US Department of Energy	Oak Ridge National Laboratory	DE-AC05-00OR22725	234,101	-
81.RD	US Department of Energy	PACCAR Inc	DE-EE0008265	386,751	-
81.RD	US Department of Energy	Pacific Northwest National Laboratory	DE-AC05-76RLO1830	(618)	-
81.RD	US Department of Energy	Sandia Corp	DE-NA0003525	643,582	-
81.RD	US Department of Energy	UChicago Argonne, LLC	DE-AC02-06CH11357	298,349	-
81.RD	US Department of Energy	UT-Battelle LLC	DE-AC05-00OR22725	127,057	-
81.RD	Central Intelligence Agency	DefenseWerx	2021-21072100002	35,376	-
81.RD	National Security Agency	Johns Hopkins Univ	H98230-16-D-0026	63,158	-
	Total Department of Energy Pass-Through Awards			10,987,308	263,464
Department of Educat 84.002	US Department of Education	Kent State Univ	V002A190036	312,505	
	•				-
84.004D	US Department of Education	Indiana Univ	S004D160011	32,336	-
84.048	US Department of Education	OH Dept of Educ	V048A200035	3,396	-
84.048	US Department of Education	OH Dept of Educ	V048A210035	111,095	-
84.184G	US Department of Education	Logan-Hocking School District	S184G190153	32,064	-
84.305	US Department of Education	American Institutes for Research	R305A160060	-	-
84.305A	Institute of Education Sciences	Purdue Univ	R305A200389	6,650	-
84.305A	Institute of Education Sciences	Univ of Florida	R305A210538	71,143	-
84.305A	Institute of Education Sciences	Univ of Texas Health Sci Ctr-Houston	R305A190065	38,053	-
84.305A	US Department of Education	Johns Hopkins Univ	R305A210049	13,366	-
84.305A	US Department of Education	University of California, Riverside	R305A210359	21,763	-
84.323A	US Department of Education	OH Dept of Educ	H323A170026	34,519	-
84.323A	US Department of Education	Univ of Cincinnati	H323A170026	15,000	-
84.371C	US Department of Education	OH Dept of Educ	S371C170019	5,769	-
84.371C	US Department of Education	OH Dept of Educ	Comprehensive Literacy State D	75,017	-
84.372A	US Department of Education	Ohio Department of Higher Education	Multiple	(39,689)	-
84.424A	US Department of Education	Ohio Department of Higher Education	Multiple	(38,721)	-
84.425C	US Department of Education	Ohio Department of Higher Education	S425C210040	69,371	-
84.425D	US Department of Education	Ohio Department of Higher Education	Multiple	(18,392)	-
84.RD	US Department of Education	OH Dept of Educ	PRELIMINARY AWARD	180	
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SCHEDULE OF EX	PENDITURES OF FEDERAL AWARDS
FOR THE YEAR EN	IDED JUNE 30, 2022

Person-International Conference Pers	Assistance Numb	•	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Part	Research and Develop	ment Cluster —				
Page	· ·					
Page	ŭ					
Separationest of Meetille and Human Services	84.RD	US Department of Education	OH Dept of Educ	Multiple	231,091	-
Milor Habit Resources and Services Administration Alabed Health Services Coproration SISEUTIO Centers for Etisoses Coordinal Prevention Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy P		Total Department of Education Pass-Through Awards			976,516	-
Milor Habit Resources and Services Administration Alabed Health Services Coproration SISEUTIO Centers for Etisoses Coordinal Prevention Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy Public Health Coursy Public Health Unit Health Coursy Public Health Coursy P	Department of Health	and Human Services				
13.048 Us Uspertment of Hearth A Harman Services Unificial Allerand Unificial President Unificial	-		AltaMed Health Services Corporation	U3S42190	239.527	-
9.3070 Cores for Disease Control on Prevention Feath Country Publis Health Unit 19 (1975) 13.36 1.00			·			-
58.077 National Cancine Institute Coccept & Research Foundation MID (ACASSTRE) 8.589 3.597 58.077 National Cancine Institute Use of Enzige Health Sci Cirk Houstein BID (ACASSTRE) 3.335		•				-
19.000 1	93.077	National Cancer Institute	-			-
90.00F7 Numberod Concern Institute Univer I Treach Health St Card-Anzenne ROLL Anzenne 10.005 2.00 93.077 National Institution on Drug Alzues Case Weethern Necessarie ROLD Addressing 13.157 3.00 5.00 13.147 3.00 1.00 13.147 3.00 13.147 3.00 13.147 3.00 13.147 3.00 13.147 3.00 13.147 3.00 10.00 13.147 3.00 10.00 13.147 3.00 10.00 13.147 3.00 10.00 10.00 13.147 3.00 10.00 <						-
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93.077 National Institution on Truit, Alexane Virginal Commonwealth Univ USEAD_MODITION 13.475 2.285 93.050 Centre for Disease Control and Prevention Hemosphills For Admitted Michage R0170004009 (2,783) -7 93.150 Food and Drug Administration O'University Of Incinate R0170004009 (2,770) 20.45 93.150 Health Resource and Services Administration O'University Of Health UTANC6377(00101 00.377 202,450 93.150 Health Resource and Services Administration O'University Of Health UTANC6377(00101 03.274 20.45 93.150 Health Resource and Services Administration O'University Of Health UTANC6377(00101 03.24 -2.25 93.151 National Institute of Environmental Health Sciences Research Toundation for Mental Hybridge, Inc. R0155002017 62.17 -2.25 93.173 National Institute of Environmental Health Sciences Research Toundation For Mental Hybridge, Inc. R0155002017 62.17 -2.25 93.173 National Institute of Demandar Control-Health Research Univ of Albanisma Blumplane R0155002017 75.37 -						
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99.1103 Food and Drug Administration Virgine Commonwealth Univ R01FD008071 27 2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-2-						-
9.3.110 Health Resources and Services Administration OH Dept of Health UTAMICGATY (601) 400,00 201,00 201,00 Amount of Medical Administration QH Dept of Health UTAMICGATY (601) 400,00 201,00 30,110 Material & Child Health Burnau Hempollia Front Michigan Hobit Michigan HOME CAPITY 33,234 -2 93.113 National Institute of Environmental Health Sciences Borning Come State University PDIESE02893 17,53 62,107 63,113 National Institute of Environmental Health Sciences Univ of Rhamma ad Birmingham RDIESE028076 68,141 -2 93.113 National Institute of Environmental Health Sciences Univ of Rhamma ad Birmingham RDIESE028076 63,101 -2 93.113 National Institute of Central and Clamidosial Research Countries University RDIESE028076 1,702 -2 93.121 National Institute of Central and Clamidosial Research Univ of Rhort Cardinar Chapet Hill RDIESE028076 1,722 -2 <		<u> </u>	· · · · · · · · · · · · · · · · · · ·			-
93.110 Health Resources and Services Administration OH Days of Health U7AMC69716 496,861 270,002 93.113 Malermal Institute of Environmental Health Sciences Bowling Gene State University PD150,8003 17,538 - 93.113 National Institute of Environmental Health Sciences Research Foundation for Mental Hypines, Inc. RETSEQUENCY 68,210 - 93.113 National Institute of Environmental Health Sciences Univ. of National Institute of Environmental Health Sciences Univ. of National Institute On Proteomental Health Sciences 48,210 - 93.113 National Institute of Environmental Health Sciences Univ. of Note Caudina. Chaptel Hill RISSISSAGE 68,411 - 93.131 National Institute of Dental and Canoidscial Research Univ. of Note Caudina. Chaptel Hill RISSISSAGE 1,102 - 93.121 National Institute of Dental and Canoidscial Research Texas A. M. Univ. RESECUTION Chapters RESECUTION Chapters 2,47.67 - 93.121 National Institute of Dental and Canoidscial Research Texas National Institute of Dental and Canoidscial Research Year Chapters - - 93.122						-
93.170 Mathermak & Childr Health Surinusu Hemophila Fan Michage Homophila Fan Michage Homophila Fan Michage Homophila Fan Michage Homophila Fan Michage 1,324 2 93.113 National institute of Environmental Health Sciences Research Foundation for Mental Hypiene, Inc. RDIES00281 62,107 2 93.113 National Institute of Environmental Health Sciences Univ of North Carolina - Chapel Hill RDIES002809 75,375 3 93.113 National Institute of Environmental Health Sciences Univ of North Carolina - Chapel Hill RDIES002809 75,375 3 93.121 National Institute of Dentil and Carolifocial Research Toxas A M Linux RDIES0028076 1,72 3 93.121 National Institute of Dentil and Carolifocial Research Univ of Perusylwaria RDIES0028078 3,737 4 93.122 National Institute of Dentil and Carolifocial Research Seath Colleger Hybrida Univ Of Perusylwaria RDIES002809 13,746 4 2 93.122 National Institute of Dentil and Cranifocial Research Seath Colleger Hybrida 4 VIXIXVE 2 93.122 N			•			
93.133 National Institute of Environmental Selamics of Environmental Petalith Selamosa Bowling Green State University POI 150/2028/9 17.38			·			270,052
93.113 National Institute of Environmental Health Sciences Research Foundation for Mental Hygiene, Inc. R0158024757 68.11 - 93.113 National Institute of Environmental Health Sciences Univ of North Carolina - Chapel Hill R0158024797 88.11 - 93.113 National Institute of Environmental Health Columbia University R0158033098 75.375 - 93.121 National Institute of Dental and Craniofacial Research Toxas A & M Univ R21DE028078 11.172 - 93.122 National Institute of Dental and Craniofacial Research Univ of Prennylyvarina R016E028038 347.977 - 93.122 National Institute of Dental and Craniofacial Research Toxas Ench Univ - Health Sciences Center USBEDE03959 13.745 - 93.136 Centers for Disease Control and Prevention Center for Disease Control and Prevention Farabido County Public Health NUT/CES24897 (2.331) - 93.136 Centers for Disease Control and Prevention Tox Research Institute at Nationwide Children's Hospital R05.060 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's						-
93.113 National Institute of Environmental Health Sciences Univ of Alachama at Birmingham ROI ISB02477 89.411 7.9 7.5			,			-
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83.113 National Institute of Health Coumba Lunwersity R015-033267 1,066 - 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008 1,007 1,008			S .			-
93.121 National Institute of Dental and Craniofacial Research Texas A.S. M. Univ R21DE028076 1,172 - 93.121 National Institute of Dental and Craniofacial Research Seattle Children's Hospital USDE029753 10,516 - 93.121 National Institute of Dental and Craniofacial Research Texas Tech Univ - Health Sciences Center USDE020899 18,745 - 93.136 Centers for Disease Control and Prevention Case Western Huniv UDIC 10000164 45,525 - 93.136 Centers for Disease Control and Prevention Franishin Country Public Health NUT/CE924987 (2,331) - 93.136 Centers for Disease Control and Prevention Hoppin of Health NUT/CE924989 201,958 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R96C000074 80,506 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R96C000074 80,506 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R96C000074	93.113		Univ of North Carolina - Chapel Hill		75,375	-
93.121 National Institute of Dental and Craniofacial Research Univ of Pennsylvania R010E02803 34,797 9.121 93.121 National Institute of Dental and Craniofacial Research Eastle Children's klopstal UGSDE039089 18,745 - 93.121 National Institute of Dental and Craniofacial Research Texas Feeb Univ - Health Sciences Center UGSDE039089 18,745 - 93.136 Centers for Disease Control and Prevention Case Western Reserve Univ UD1CE03144 45,525 - 93.136 Centers for Disease Control and Prevention Franklin County Public Health NUT/CE924899 201,958 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital RAGCE003074 80,006 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital RAGCE003074 80,006 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital RAGCE003074 80,006 - 93.136 Centers for Disease Control and Prevention The Research Institute at National Prevention </td <td>93.113</td> <td>National Institutes of Health</td> <td>Columbia University</td> <td>R01ES033267</td> <td>1,906</td> <td>-</td>	93.113	National Institutes of Health	Columbia University	R01ES033267	1,906	-
93.121 National Institute of Dental and Craniofacial Research Seattle Children's Hospital UG3DE039753 10,516 39.121 National Institute of Dental and Craniofacial Research Texas Tech Link' - Hastil Science Center UG3DE0308099 18,745 - 3.00 1	93.121	National Institute of Dental and Craniofacial Research	Texas A & M Univ	R21DE028076	1,172	-
93.121 National Institute of Dental and Craniofacial Research Texas Tech Univ - Health Sciences Center UGSDE030869 18,745 2 39.136 Centers for Disease Control and Prevention Franklin County Public Health NU17C6924987 (2,331) 2 39.136 Centers for Disease Control and Prevention Franklin County Public Health DU17C6924987 (2,331) 2 39.136 Centers for Disease Control and Prevention Franklin County Public Health DU17C6924989 (32.33) 2 39.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R49CE003074 80,506 2 39.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R49CE003074 80,506 2 39.136 National Institute of Child Health and Human Development Minnesota Health Solutions Corporation R44CE003388 32.412 2 3 3 3 3 3 3 3 3	93.121	National Institute of Dental and Craniofacial Research	Univ of Pennsylvania	R01DE026603	347,977	-
93.136 Centers for Disease Control and Prevention Case Western Reserve Univ U01CE003164 45,525 - 93.136 Centers for Disease Control and Prevention Franklin County Public Health NU17CE924897 (2,331) - 93.136 Centers for Disease Control and Prevention OF Dept of Health NU17CE924898 201,988 2 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R40CE003074 80.506 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R10CE003349 80.00 - 93.136 National Institute of Childrel Health A Human Development Minnesotal Health Solutions Corporation R44CE003388 32.412 - 93.136 US Department of Health & Human Services Star Coulty Health Department CCD-CRFA-CE1-1692SUPCOVID2020 72 - 93.137 National Human Genome Research Institute University of Illinois University of Illinois U10HA29293 28.00 28.00 48.00 48.00 48.00 49.00 49.00 49.00 49.00	93.121	National Institute of Dental and Craniofacial Research	Seattle Children's Hospital	UG3DE029753	10,516	-
93.136 Centers for Disease Control and Prevention Franklin County Public Health NU17CE924887 (2.331) - 93.136 Centers for Disease Control and Prevention Franklin County Public Health CDC-RFA-CE19-1904 181,246 - 93.136 Centers for Disease Control and Prevention OH pot of Health NU17CE924899 201,988 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R49CE003074 80.506 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R49CE003074 80.506 - 93.136 Cantrol of Child Health And Human Development Minches Search Institute at Nationwide Children's Hospital R40CE003388 32.412 - 93.136 US Department of Health & Human Services Stark County Health Department CDC-RFA-CE16-16028UPCOVID2020 72 - 93.172 Health Resources and Services Administration University of Illinois U104 Children's Hospital R014 Children's Hospital	93.121	National Institute of Dental and Craniofacial Research	Texas Tech Univ - Health Sciences Center	UG3DE030869	18,745	-
93.136 Centers for Disease Control and Prevention Franklin County Public Health CDC-RFA-CE19-1904 181,246 - 93.136 Centers for Disease Control and Prevention OH Dept of Health NUT/CE29489 201,598 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R40E000374 80,506 - 93.136 Centers for Disease Control and Prevention The Research Institute at Nationwide Children's Hospital R01E0003349 8,000 - 93.136 Valional Institute of Child Health and Human Development Minnesotal Health/Solutions Corporation R44CE003388 32,412 - 93.136 US Department of Health & Human Services Stark County Health Department CD-FRA-CE16-1602SUPCOVID2020 72 - 93.145 Health Resources and Services Administration University of Illinois U10HA29293 288,605 - 93.172 National Human Genome Research Institute Baylor College of Medicine R01HG011288 80,952 - 93.172 National Human Genome Research Institute Sloan-Kettering Institute R01HG011288 R01HG011288	93.136	Centers for Disease Control and Prevention	Case Western Reserve Univ	U01CE003164	45,525	-
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93.173 National Institute on Deafness and Other Communication Disorders MGH Institute of Health Professions R01DC018823 211,787 - 93.173 National Institute on Deafness and Other Communication Disorders Univ of Iowa P50DC000242 68,550 - 93.173 National Institute on Deafness and Other Communication Disorders Univ of Southern California R01DC018701 11,486 - 93.173 National Institute on Deafness and Other Communication Disorders Univ of Southern California R01DC018044 14,486 - 93.173 National Institute on Deafness and Other Communication Disorders Univ of Texas at Austin R01DC016272 162,666 - 93.213 National Center for Complementary and Integrative Health Case Western Reserve Univ R33AT009153 9,197 -			· · · · · · · · · · · · · · · · · · ·			-
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93.173 National Institute on Deafness and Other Communication Disorders Univ of Southern California R01DC018044 14,486 - 93.173 National Institute on Deafness and Other Communication Disorders Univ of Texas at Austin R01DC016272 162,666 - 93.213 National Center for Complementary and Integrative Health Case Western Reserve Univ R33AT009153 9,197 -			Univ of Iowa			-
93.173 National Institute on Deafness and Other Communication Disorders Univ of Texas at Austin R01DC016272 162,666 - 93.213 National Center for Complementary and Integrative Health Case Western Reserve Univ R33AT009153 9,197 -	93.173	National Institute on Deafness and Other Communication Disorders	Univ of Southern California	R01DC018701	11,486	-
93.213 National Center for Complementary and Integrative Health Case Western Reserve Univ R33AT009153 9,197 -	93.173	National Institute on Deafness and Other Communication Disorders	Univ of Southern California	R01DC018044	14,486	-
	93.173	National Institute on Deafness and Other Communication Disorders	Univ of Texas at Austin	R01DC016272	162,666	-
93.213 National Center for Complementary and Integrative Health New York University School of Medicine UG3AT009844 4,578 -	93.213	National Center for Complementary and Integrative Health	Case Western Reserve Univ	R33AT009153	9,197	-
	93.213	National Center for Complementary and Integrative Health	New York University School of Medicine	UG3AT009844	4,578	-

	Assistance Listin	~		Additional Award	Federal	Expenditures	
	Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients	
Danasarah	and Davelenment	Chiester					
Research and Development Cluster — Pass-through from other sources:							
Pass-thro	ougn from other sou	rces:					
	93.226	Agency for Healthcare Research and Quality	Case Western Reserve Univ	U18HS027944	153.883	_	
	93.226	Agency for Healthcare Research and Quality	Indiana Univ	R01HS027185	36,865		
	93.226	Agency for Healthcare Research and Quality	Washington Univ	R18HS026699	130,097	_	
	93.226	Agency for Healthcare Research and Quality	Univ of North Carolina - Chapel Hill	R18HS027260	26.846	_	
	93.226	Agency for Healthcare Research and Quality	Univ of North Carolina - Chapel Hill	R18HS027078	216,479		
	93.226	National Institutes of Health	Medical Univ of South Carolina	R01HS027912	86,190		
	93.242	National Institute of Mental Health	Indiana Univ	R34MH119411	35,264		
	93.242	National Institute of Mental Health	The Research Institute at Nationwide Children's Hospital	R01MH117594	147.391		
	93.242	National Institute of Mental Health	Univ of Pittsburgh	R37MH100041	15,976		
	93.242	National Institute of Mental Health	Univ of Pittsburgh	R01MH060952	3.477		
	93.242	National Institute of Mental Health	University of Oregon	R01MH108869	(6)	-	
	93.242	National Institute of Mental Health	Washington Univ	R01MH104030	104.344	-	
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	93.242	National Institute of Mental Health	Univ of North Carolina - Chapel Hill	R34MH119963	31,737	-	
	93.242	National Institute of Mental Health	Oui Therapeutics	R42MH123357	97,993	-	
	93.243	Substance Abuse & Mental Health Services Administration	American Psychiatric Nurses Association	H79FG000022	2,557	-	
	93.243	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	H79FG000202	115,476	-	
	93.243	COVID Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	Agreement Dated10/02/2020	58,333	-	
	93.243	Substance Abuse & Mental Health Services Administration	OH Dept of Mental Hith & Addiction Svcs	H79TI080185	15,000	-	
	93.243	Substance Abuse & Mental Health Services Administration	Ohio Suicide Prevention Foundation	H79SM080997	3,919	-	
	93.262	Centers for Disease Control and Prevention	Univ of Iowa	U54OH007548	6,463	-	
	93.262	Centers for Disease Control and Prevention	Univ of Michigan	T42OH008455	(314)	-	
	93.262	Centers for Disease Control and Prevention	Marshfield Clinic Research Institute	U54OH009568	22,716	-	
	93.279	National Institute on Drug Abuse	Case Western Reserve Univ	R01DA044576	10,319	-	
	93.279	National Institute on Drug Abuse	Medical Univ of South Carolina	U01DA045300	4,726	-	
	93.279	National Institute on Drug Abuse	Miriam Hospital	R01DA045492	14,277	-	
	93.279	National Institute on Drug Abuse	New York University School of Medicine	UG1DA013035	378,916	-	
	93.279	National Institute on Drug Abuse	Purdue Univ	R01DA054234	68,575	-	
	93.279	National Institute on Drug Abuse	Univ of Pennsylvania	R01DA048001	162,470	-	
	93.279	National Institute on Drug Abuse	Univ of Pittsburgh	R01DA048029	14,639	-	
	93.279	National Institute on Drug Abuse	Univ of Pittsburgh	R56DA051400	19,284	-	
	93.279	National Institute on Drug Abuse	University of California at San Diego	R01DA049730	135,265	-	
	93.279	National Institute on Drug Abuse	Wake Forest Univ Health Sciences	R01DA052214	32,043	-	
	93.279	National Institute on Drug Abuse	Univ of North Carolina - Chapel Hill	R01DA047876	79,344	-	
	93.286	National Institute of Biomedical Imaging and Bioengineering	Case Western Reserve Univ	R01EB020353	72,159	_	
	93.286	National Institute of Biomedical Imaging and Bioengineering	Case Western Reserve Univ	R01EB025741	19,985	_	
	93.286	National Institute of Biomedical Imaging and Bioengineering	Massachusetts General Hospital	R01EB029818	24,589	_	
	93.286	National Institute of Biomedical Imaging and Bioengineering	Massachusetts Inst Tech	R01EB017755	116,502		
	93.286	National Institute of Biomedical Imaging and Bioengineering	Stanford Univ	R01EB027666	47,714		
	93.286	National Institute of Biomedical Imaging and Bioengineering	The Research Institute at Nationwide Children's Hospital	R21EB026518	36,143	_	
	93.286	National Institute of Biomedical Imaging and Bioengineering	Univ of Massachusetts - Lowell	R01EB021900	111,821	74,059	
						74,009	
	93.286	National Institute of Biomedical Imaging and Bioengineering	Univ of Washington	UG3EB028094	(10,353)	-	
	93.286	National Institute of Biomedical Imaging and Bioengineering	University Of Memphis	P41EB028242	53,728	40.004	
	93.307	National Institute on Minority Health and Health Disparities	Boston College	R01MD012770	357,254	12,321	
	93.307	National Institute on Minority Health and Health Disparities	Indiana State University	R25MD011712	34,792	-	
	93.307	National Institute on Minority Health and Health Disparities	Rush University	R01MD013969	9,870	-	
	93.307	National Institute on Minority Health and Health Disparities	Univ of Washington	T37MD014208	6,196	-	
	93.307	National Institute on Minority Health and Health Disparities	University of Central Florida	R01MD011575	147,302	-	
	93.307	National Institute on Minority Health and Health Disparities	University of California-Irvine	R01MD012778	131,363	-	
	93.310	National Cancer Institute	Univ of Utah	R01CA260414	246,394	-	
	93.310	National Cancer Institute	University of Hawaii	U01CA164973	17,118	-	
	93.310	National Institute on Aging	Univ of Pittsburgh	U54AG075931	181,014	-	
	93.310	Office of the Director, National Institutes of Health	New York University	UH3OD023332	6,037	-	

Assistance Lis	ting		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Developme	nt Cluster —				
Pass-through from other s	ources:				
93.310	Office of the Director, National Institutes of Health	Vanderbilt University Medical Center	U2COD023196	23,195	-
93.313	National Institute of Child Health and Human Development	Northwestern University	R01HD098178	22,729	-
93.318	Centers for Disease Control and Prevention	Univ of Alabama at Birmingham	NU50CK000564	30,588	-
93.321	COVID National Institute of Child Health and Human Development	The Research Institute at Nationwide Children's Hospital	R01HD102439	3,740	-
93.322	Centers for Disease Control and Prevention	Association of Public Health Laboratories	NU2HGH000080	12,017	-
93.323	Centers for Disease Control and Prevention	OH Dept of Health	NU50CK000543	156,267	100,306
93.350 93.350	COVID Centers for Disease Control and Prevention National Center for Advancing Translational Sciences	OH Dept of Health Oregon Health and Science University	NU50CK000543 U01TR002631	3,804,540 244,838	1,756,823
93.350	5	,	UL1TR001855		-
93.350	National Center for Advancing Translational Sciences	Univ of Southern California University Of Colorado	U24TR002306	(360) 14,745	-
93.350	National Center for Advancing Translational Sciences	Vanderbilt Univ	U24TR002306 U24TR001579	49.651	-
93.350	National Center for Advancing Translational Sciences COVID National Center for Advancing Translational Sciences	Vanderbilt University Medical Center	UL1TR002243	132.156	-
93.351	COVID National Center for Advancing Translational Sciences COVID Office of the Director, National Institutes of Health	Harvard Univ	R24OD019847	178,203	-
93.353	National Cancer Institute	Fred Hutchinson Cancer Research Center	UM1CA154967	16,258	-
93.353	National Cancer Institute National Cancer Institute	The Research Institute at Nationwide Children's Hospital	U54CA232561	330,980	-
93.353	National Cancer Institute National Cancer Institute		UH3CA232561 UH3CA233282	620,717	-
93.353	National Cancer Institute National Institute of Nursing Research	Univ of Kentucky Michigan State Univ	R01NR017626	8,203	-
93.361	National Institute of Nursing Research	Univ of Florida	R21NR017626 R21NR018936	56,192	-
93.378	Centers for Medicare & Medicaid Services	The Research Institute at Nationwide Children's Hospital	2B2CMS331798	260,638	-
93.376	Centers for Disease Control and Prevention	City of Columbus	NH75OT00056	92,093	-
					-
93.391 93.393	COVID Centers for Disease Control and Prevention COVID National Cancer Institute	Cols Public Health Dana-Farber Cancer Inst	NH75OT00056 U01CA246648	59,215 159,092	-
93.393	National Cancer Institute	Duke Univ	R01CA200853	20,675	-
93.393	National Cancer Institute National Cancer Institute			101,815	-
93.393	National Cancer Institute National Cancer Institute	Fred Hutchinson Cancer Research Center Georgia State University Research Foundation	U01CA173642 R01CA235719	33,933	-
93.393	National Cancer Institute National Cancer Institute	Medical Univ of South Carolina	R01CA235719 R01CA210625	4,415	-
93.393	National Cancer Institute National Cancer Institute	Medical Univ of South Carolina Medical Univ of South Carolina	P01CA200512	9,397	-
93.393	National Cancer Institute National Cancer Institute	Moffitt (H Lee) Cancer Center and Research Institute	R01CA219389	74,078	-
93.393	National Cancer Institute National Cancer Institute	Pennsylvania State Univ	R01CA219369 R01CA173465	36,187	-
93.393	National Cancer Institute National Cancer Institute	Univ of Arizona	R01CA173403	54,316	-
93.393	National Cancer Institute National Cancer Institute	Univ of Minnesota	P01CA217806	237,447	-
93.393	National Cancer Institute National Cancer Institute	University of Oregon	R01CA240452	23,491	-
93.393	National Cancer Institute National Cancer Institute	Vanderbilt Univ	R01CA240432	24,894	-
93.393	National Cancer Institute National Cancer Institute	Virginia Commonwealth Univ	U01CA213330	231,125	-
93.393	National Cancer Institute National Cancer Institute	Weill Cornell Medical College	R01CA260352	13,300	-
93.393	National Cancer Institute National Cancer Institute	The Univ of Oklahoma Health Scis Ctr	R01CA242168	5.214	-
93.394	National Cancer Institute National Cancer Institute	Broad Institute	UH2CA239105	7,375	-
93.394	National Cancer Institute National Cancer Institute	Case Western Reserve Univ	R01CA249992	268	-
93.394	National Cancer Institute National Cancer Institute	City of Hope	U01CA189283	2,726	
93.394	National Cancer Institute National Cancer Institute	City of Hope	R01CA189263	7,532	-
93.394	National Cancer Institute National Cancer Institute	Mayo Foundation for Medical Education and Research	R01CA251801	24,304	
93.394	National Cancer Institute National Cancer Institute	Univ of Michigan	R37CA214955	108,233	-
93.394	National Cancer Institute National Cancer Institute	Washington Univ	U24CA196171	1,072,582	-
93.394	National Institute of Biomedical Imaging and Bioengineering	Iowa State Univ	R01EB029756	16.112	_
93.394	National Institute of Biomedical imaging and Bioengineering National Institutes of Health	Stanford Univ	R01CA249899	70,308	-
93.395	National Cancer Institute	Am Coll of Radiology	U24CA180803	1,910,950	-
93.395	National Cancer Institute National Cancer Institute	Baylor College of Medicine	R01CA250503	1,910,950	
93.395	National Cancer Institute National Cancer Institute	BioMimetix JV. LLC.	R44CA195749	62.850	
93.395	National Cancer Institute National Cancer Institute	Brigham & Women's Hosp Inc	U01CA180821	30,334	_
93.395	National Cancer Institute National Cancer Institute	Brigham & Women's Hosp Inc	P01CA160821	58,050	-
93.395	National Cancer Institute	Brigham & Women's Hosp Inc	U10CA180821	20.656	_
93.395	National Cancer Institute National Cancer Institute	CerFlux	R43CA254493	59,037	-
33.333	Hadional Ganosi Histiate	OUT IN	1430AZJ430	59,037	-

Assistance L	istina		Additional Award	Federal	Expenditures
Number	r Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
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Research and Developm	ent Cluster —				
Pass-through from other					
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93.395	National Cancer Institute	City of Hope	R01CA246553	70,347	-
93.395	National Cancer Institute	City of Hope	R01CA201184	20,254	-
93.395	National Cancer Institute	Cornell University	P01CA214274	117,275	-
93.395	National Cancer Institute	Dana-Farber Cancer Inst	R01CA188228	8,609	-
93.395	National Cancer Institute	Emory Univ	R01CA208253	76,173	-
93.395	National Cancer Institute	Emory Univ	UG1CA233259	104,719	-
93.395	National Cancer Institute	Harvard Univ	R01CA213442	21,658	-
93.395	National Cancer Institute	Johns Hopkins Univ	U24CA247648	194,331	-
93.395	National Cancer Institute	Massachusetts Inst Tech	U01CA265706	2,680	-
93.395	National Cancer Institute	Mayo Foundation for Medical Education and Research	U10CA180882	94,157	-
93.395	National Cancer Institute	NRG Oncology	U10CA180868	26,755	-
93.395	National Cancer Institute	Oregon Health and Science University	U10CA180888	18,049	-
93.395	National Cancer Institute	Univ of California at Los Angeles	UM1CA121947	10,032	-
93.395	National Cancer Institute	Univ of California-Davis	R01CA225836	6,682	_
93.395	National Cancer Institute	Univ of California-Davis	R01CA253605	145,546	_
93.395	National Cancer Institute	Univ of California-Davis	R01CA250082	14.684	-
93.395	National Cancer Institute	Univ of California-Davis	R01CA251253	6,199	_
93.395	National Cancer Institute	Univ of Nebraska	R03CA235214	165	_
93.395	National Cancer Institute	Weill Cornell Medical College	P01CA214274	32.032	_
93.395	National Cancer Institute	Univ of North Carolina - Chapel Hill	R01CA237357	199,463	_
93.395	National Cancer Institute	Montefiore Medical Center	UM1CA121947	9,082	_
93.395	National Cancer Institute	OncoC4	R44CA250824	110,976	
93.396	National Cancer Institute	Case Western Reserve Univ	R01CA222064	33,428	_
93.396	National Cancer Institute	City of Hope	R35CA210087	(31,182)	_
93.396	National Cancer Institute	Feinstein Institute for Medical Research	R01CA238523	35,857	_
93.396	National Cancer Institute	Medical Univ of South Carolina	R01CA235074	26,606	-
93.396	National Cancer Institute	Michigan State Univ	R01CA247863	132,934	-
93.396	National Cancer Institute	Stanford Univ	R35CA197713	(7,395)	-
93.396	National Cancer Institute	The Research Institute at Nationwide Children's Hospital	R03CA259865	3,787	-
93.396	National Cancer Institute	Univ of Maryland	R01CA212094	27,728	-
93.399	National Cancer Institute	Alliance NCTN Foundation	UG1CA189823	342,502	-
93.399	National Cancer Institute	Univ of Michigan	UG1CA242632	61,715	-
93.421	Centers for Disease Control and Prevention	Council of State and Territorial Epidemiologists	NU38OT000297	8,880	-
93.421 93.421	COVID Centers for Disease Control and Prevention Centers for Disease Control and Prevention	National Association of Chronic Disease Directors Prevent Blindness Ohio	NU38OT000286 NU38OT000286	109,325	10,000
93.421	Centers for Disease Control and Prevention Centers for Disease Control and Prevention	Task Force for Global Health	NU38OT000266 NU38OT000316	15,561 210,574	105,033
93.426	COVID Centers for Disease Control and Prevention	Task Force for Global Health	NU38OT000316	47,692	-
93.426	Centers for Disease Control and Prevention	OH Dept of Health	NU58DP006544	220,955	-
93.433	Administration for Community Living	Indiana Univ	90DPHF0006	45,475	-
93.433	Administration for Community Living	Craig Hospital	90DPTB0017	23,984	-
93.433	National Institute on Disability, Independent Living, and Rehabilitation Research	Johns Hopkins Univ	90RTGE0003	46,388	-
93.478	Centers for Disease Control and Prevention	OH Dept of Health	NU58DP006692	80,932	-
93.516	Health Resources and Services Administration	Univ of Michigan	UB6HP31684	28,348	-
93.524	Centers for Disease Control and Prevention	Council of State and Territorial Epidemiologists	NU38OT000297	79,225	-
93.590	COVID Administration for Children and Families	The Research Institute at Nationwide Children's Hospital	G-1801OHBCAP	41,367	-
93.590 93.590	Administration for Children and Families US Department of Health & Human Services	The Research Institute at Nationwide Children's Hospital OH Dept of Job & Family Services	2101OHBCC6 G-1901OHBCAP	23,615 39,475	- 39,475
93.630	Administration for Community Living	Ohio Developmental Disabilities Planning Council	18PP05SC21	42,463	38,473
93.630	US Department of Health & Human Services	Ohio Developmental Disabilities Planning Council	1901OHBSDD	34,649	-
93.632	Administration for Community Living	Univ of Wyoming	90DDT10042	65,086	-
93.669	Administration for Children and Families	OH Dept of Job & Family Services	G-1701OHCA01	1,594	-
93.669	Administration for Children and Families	OH Dept of Job & Family Services	C-2223-06-0380	217,236	36,787
93.670	Administration for Children and Families	OH Dept of Job & Family Services	90CA1867	58,184	20,264
93.747	Administration for Community Living	OH Dept of Job & Family Services	90EJSG0026	14,508	-
93.788	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	H79TI081684	22,463	-

Assistance	Listing		Additional Award	Federal	Expenditures
Numb	per Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Develop	ment Cluster —				
Pass-through from other					
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93.788	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	3HB1-2021 (336644) 4221C	1,042,835	-
93.832	National Heart, Lung, and Blood Institute	New York University School of Medicine	0T2HL156812	80,837	-
93.837	COVID National Heart, Lung, and Blood Institute	Basking Biosciences	R44HL152869	115,820	-
93.837	National Heart, Lung, and Blood Institute	Cardialen, Inc	R44HL154937	7,532	-
93.837	National Heart, Lung, and Blood Institute	Case Western Reserve Univ	R01HL114770	159,282	-
93.837	National Heart, Lung, and Blood Institute	Cleveland Clinic	U54HL119810	(3,423)	-
93.837	National Heart, Lung, and Blood Institute	Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ	U54HL119810	(77) 2.808	-
93.837 93.837	National Heart, Lung, and Blood Institute	Coridea, LLC Duke Univ	R44HL127771 U10HL084904	,	-
93.837	National Heart, Lung, and Blood Institute National Heart, Lung, and Blood Institute	Icahn School of Medicine at Mount Sinai	U01HL088942	1,702 23	-
93.837	National Heart, Lung, and Blood Institute	Kent County Memorial Hospital	R01HL130591	2.658	-
93.837	National Heart, Lung, and Blood Institute	Massachusetts General Hospital	U01HL123336	54,443	-
93.837	National Heart, Lung, and Blood Institute	New England Research Institutes	U01HL107407	8.592	
93.837	National Heart, Lung, and Blood Institute	New England Research Institutes	R01HL141213	3,873	_
93.837	National Heart, Lung, and Blood Institute	Northwestern University	R01HL161514	1,496	_
93.837	National Heart, Lung, and Blood Institute	Res Triangle Inst	U01HL145358	28,407	_
93.837	National Heart, Lung, and Blood Institute	The Research Institute at Nationwide Children's Hospital	R01HL132801	1,052	_
93.837	National Heart, Lung, and Blood Institute	The Research Institute at Nationwide Children's Hospital	R01HL135103	29,889	_
93.837	National Heart, Lung, and Blood Institute	Univ of Alabama at Birmingham	U01HL120338	25,762	-
93.837	National Heart, Lung, and Blood Institute	Univ of Alabama at Birmingham	R01HL120338	9,688	-
93.837	National Heart, Lung, and Blood Institute	Univ of Michigan	UG3HL145269	11,839	-
93.837	National Heart, Lung, and Blood Institute	Univ of Michigan	R01HL159900	159,135	-
93.837	National Heart, Lung, and Blood Institute	Univ of Minnesota	R01HL136679	17,440	-
93.837	National Heart, Lung, and Blood Institute	Univ of Minnesota	R01HL136757	26,942	-
93.837	National Heart, Lung, and Blood Institute	Univ of Pittsburgh	U01HL146208	375,588	-
93.837	National Heart, Lung, and Blood Institute	Univ of Rochester	R01HL140588	(280)	-
93.837	National Heart, Lung, and Blood Institute	University at Buffalo	R01HL142673	59,290	-
93.837	National Heart, Lung, and Blood Institute	University of Rhode Island	R01HL135236	35,152	-
93.837	National Heart, Lung, and Blood Institute	Virginia Polytechnic Inst	R01HL138003	240,584	-
93.837	National Heart, Lung, and Blood Institute	Washington Univ	R01HL138175	61	-
93.837	National Heart, Lung, and Blood Institute	Washington Univ	R01HL138353	392	-
93.837	National Heart, Lung, and Blood Institute	Kaiser Permanente	R01HL15766	17,744	-
93.837	National Heart, Lung, and Blood Institute	Tulane University	R01HL153750	14,315	-
93.837	National Institutes of Health	Univ of Arizona	K01HL142848	1,750	-
93.838	National Heart, Lung, and Blood Institute	Brigham & Women's Hosp Inc	R01HL142093	54,751	-
93.838	National Heart, Lung, and Blood Institute	Case Western Reserve Univ	R01HL125060	7,866	-
93.838	National Heart, Lung, and Blood Institute	Cincinnati Children's Hos Med Ctr	R01HL153108	5,686	-
93.838	National Heart, Lung, and Blood Institute	Cleveland Clinic	U01HL123009	(2,922)	-
93.838	National Heart, Lung, and Blood Institute	Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ	OT2HL156812	241	-
93.838	COVID National Heart, Lung, and Blood Institute	Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ	U01HL123009	1,089	-
93.838 93.838	National Heart, Lung, and Blood Institute	COPD Foundation	U01HL128954	(11,337)	-
93.838	National Heart, Lung, and Blood Institute National Heart, Lung, and Blood Institute	Fred Hutchinson Cancer Research Center George Washington Univ	UH3HL147011 R01HL098354	17,298 18,627	-
93.838	National Heart, Lung, and Blood Institute National Heart, Lung, and Blood Institute	Mayo Foundation for Medical Education and Research	U01HL152967	182,278	-
93.838	National Heart, Lung, and Blood Institute	Stanford Univ	R01HL138473	37,629	-
93.838	National Heart, Lung, and Blood Institute	The Children's Hospital of Philadelphia	OT2HL161847	7,829	
93.838	National Heart, Lung, and Blood Institute	The Research Institute at Nationwide Children's Hospital	R01HL148171	(185)	-
93.838	National Heart, Lung, and Blood Institute	The Research Institute at Nationwide Children's Hospital	R01HL157039	58.580	
93.838	National Heart, Lung, and Blood Institute	Univ of California-Davis	R01HL150638	9.914	_
93.838	National Heart, Lung, and Blood Institute	Univ of Michigan	OT2HL156812	926	-
93.838	COVID National Heart, Lung, and Blood Institute	Univ of Michigan	R01HL155116	17.224	-
93.838	National Heart, Lung, and Blood Institute	Univ of Utah	OT2HL161847	8.936	_
93.838	COVID National Heart, Lung, and Blood Institute	University of Texas Southwestern Medical Center At Dallas	R01HL136643	44,141	-
93.838	National Heart, Lung, and Blood Institute	Wake Forest Univ	R01HL143076	100,563	-
93.838	National Heart, Lung, and Blood Institute	Labcorp Drug Development	OT2HL156812	3,772	-
93.839	COVID National Heart, Lung, and Blood Institute	The Research Institute at Nationwide Children's Hospital	R21HL150487	53,131	-
93.839	National Heart, Lung, and Blood Institute	Univ of Pennsylvania	R21HL144224	24,961	-
93.839	National Heart, Lung, and Blood Institute	Univ of Pittsburgh	UH3HL143192	37,161	-
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THE OHIO STATE UNIVERSITY SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

00	OLL OF EXILENDITORIES OF FEBRUARY	
FOR T	IE YEAR ENDED JUNE 30, 2022	

Research and Development Cluster — Pass-through from other sources: 93.839 National Heart, Lung, and Blood Institute 93.839 National Heart, Lung, and Blood Institute Univ of Pittsburgh Wanderbilt University Medical Center OT3HL147810 University Of Colorado Rothild Institutes of Health University Of Colorado Rothild Institutes of Health University Of Colorado Rothild Institute of Allergy and Infectious Diseases Univ of Pittsburgh University Of Colorado Rothild Institute of Allergy and Infectious Diseases Univ of Pittsburgh Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ RothaRothild Rothild Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ	654 174 33,483 5,353 24,617 19,220 (1,650) 27,825	to Subrecipients
Pass-through from other sources: 93.839 National Heart, Lung, and Blood Institute 93.839 National Heart, Lung, and Blood Institute Univ of Pittsburgh Univ of Pittsburgh K23HL148762 Univ of Pittsburgh K23HL148762 Vanderbilt University Medical Center OT3HL147810 Vanderbilt University Medical Center Winiversity Medical Center OT3HL147810 University Of Colorado R01HL158076 R01AR071369 R01AR071369 R01AR070474 R01AR070474 R01AR070474 R01AR070474 R03.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422	174 33,483 5,353 24,617 19,220 (1,650)	- - - -
Pass-through from other sources: 93.839 National Heart, Lung, and Blood Institute 93.839 National Heart, Lung, and Blood Institute Univ of Pittsburgh Univ of Pittsburgh K23HL148762 93.839 National Heart, Lung, and Blood Institute Vanderbilt University Medical Center 93.839 National Institutes of Health University Of Colorado R01HL158076 93.846 National Institute of Allergy and Infectious Diseases Univ of Pittsburgh R01AR070474 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cincinnati Children's Hos Med Ctr R01AR070474 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422	174 33,483 5,353 24,617 19,220 (1,650)	- - - -
93.839 National Heart, Lung, and Blood Institute Univ of Pittsburgh U1014L133815 93.839 National Heart, Lung, and Blood Institute Univ of Pittsburgh K23HL148762 93.839 National Heart, Lung, and Blood Institute Vanderbilt University Medical Center O73HL147810 93.839 National Institutes of Health University Of Colorado R01HL158076 93.846 National Institute of Allergy and Infectious Diseases Univ of Pittsburgh R01AR071369 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cincinnati Children's Hos Med Ctr R01AR070474 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR073421 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR073421	174 33,483 5,353 24,617 19,220 (1,650)	: : :
93.839 National Heart, Lung, and Blood Institute Univ of Pittsburgh K23HL148762 93.839 National Heart, Lung, and Blood Institute Vanderbilt University Medical Center OT3HL147810 93.839 National Institutes of Health University Of Colorado R01HL158076 93.846 National Institute of Allergy and Infectious Diseases Univ of Pittsburgh R01AR071369 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cincinnati Children's Hos Med Ctr R01AR070474 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075424 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422	174 33,483 5,353 24,617 19,220 (1,650)	- - - -
93.839 National Heart, Lung, and Blood Institute 93.839 National Institutes of Health 93.840 National Institute of Allergy and Infectious Diseases 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases 10 Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ 10 Patrick Patric	33,483 5,353 24,617 19,220 (1,650)	- - -
93.839 National Institutes of Health University Of Colorado R01HL158076 93.846 National Institute of Allergy and Infectious Diseases Univ of Pittsburgh R01AR071369 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cincinnati Children's Hos Med Ctr R01AR070474 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR053684 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR074131 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR07422	5,353 24,617 19,220 (1,650)	- - -
93.846 National Institute of Allergy and Infectious Diseases Univ of Pittsburgh R01AR071369 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ 803.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ 804.847 R01AR075422	24,617 19,220 (1,650)	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cincinnati Children's Hos Med Ctr R01AR070474 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR053684 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR074131 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422	19,220 (1,650)	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR053684 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR074131 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422	(1,650)	
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR074131 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422		-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ R01AR075422		-
	105,804	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Massachusetts General Hospital U01AR070498	7.965	-
93.040 National Institute of Arthritis and Musculoskeletal and Skin Loseases Massacritustic General in rospital 93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Mayo Foundation for Medical Education and Research R01AR055563	128,459	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Medical Univ of South Carolina R014R071947	260.394	_
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Myofinity Biosciences, Inc. R41AR076276	(2,440)	-
93,846 National Institute of Arthritis and Musculoskeletal and Skin Diseases The Research Institute at Nationwide Children's Hospital R01AR073311	28.200	-
93,846 National Institute of Arthritis and Musculoskeletal and Skin Diseases The Research Institute at Nationwide Children's Hospital R01AR073908	39,031	-
93,846 National Institute of Arthritis and Musculoskeletal and Skin Diseases The Research Institute at Nationwide Children's Hospital P50AR070604	(4,929)	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of California San Francisco U19AR076737	73,325	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of Cincinnati R01AR077238	38,937	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of Iowa R01AR077194	9,596	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of Michigan U01AR073485	22,249	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of Pennsylvania R01AR071718	5,553	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of Pittsburgh P50AR060780	27,135	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases Univ of North Carolina - Chapel Hill U24AR076730	301,515	-
93.846 National Institute of Arthritis and Musculoskeletal and Skin Diseases University of California-Irvine R01AR078340	21,508	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Cleveland Clinic Lerner College of Medicine of Case Western Reserve Univ U01DK116097	57	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Columbia University R01DK101251	(8,602)	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Indiana Univ UH3DK114923	57,075	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Indiana Univ R01DK116963 93.847 National Institute of Diabetes and Digestive and Kidney Diseases Mayo Foundation for Medical Education and Research R21DK117212	2,629 53,192	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Mayo Foundation for Medical Education and Research R21DK117212 93.847 National Institute of Diabetes and Digestive and Kidney Diseases Medical Univ of South Carolina U01DK116743	13,679	-
93.647 National Institute of Diabetes and Digestive and Kidney Diseases Medical Univ of South Carolina U01DK104833	39,037	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Northwestern University R01DK117491	7,673	_
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Northwestern University U01DK123745	16.235	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Northwestern University R34DK125958	8.653	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Northwestern University R01DK127184	3,174	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Pennsylvania State Univ U01DK127384	121,089	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases The EMMES Corp UC4DK114839	2,104	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases The Research Institute at Nationwide Children's Hospital R01DK128088	13,268	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of California at Los Angeles R01DK108438	925	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of Georgia U24DK115255	69,824	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of Maryland R01DK109581	9,913	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of Michigan U54DK083912	279	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of Texas Health Sci Ctr-Houston R01DK122796	(5,598)	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of Texas Health Sci Ctr-Houston R01DK111201	36,626	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases Univ of Texas M D Anderson Cancer Center U01DK108328 93.847 National Institute of Diabetes and Digestive and Kidney Diseases University of California at San Diego R01DK128803	26,075 55,761	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases University of California at San Diego R01DK128803 93.847 National Institute of Diabetes and Digestive and Kidney Diseases University Of Vermont R01DK124580	55,761 10.149	-
93.847 National Institute of Diabetes and Digestive and Kidney Diseases University of Vermont U01DK10867	23.550	-
93.547 National Institute of Diabetes and Digestive and Kindrey Diseases Univ or North Carolina - Chaper Hill University of Diabetes and Digestive and Kindrey Diseases Univ of North Carolina - Chaper Hill R01DK126959	23,550	-
93.647 National Institute of Disurcetes and Digestive and Knowledge Useases Only of Involved and Institute of Disurcetes and Stroke Baylor College of Medicine U01NS114042	38.245	-
93.853 National Institute of Neurological Disorders and Stroke Brigham & Women's Hosp Inc R01NS110942	22.290	-
93.853 National Institute of Neurological Disorders and Stroke Columbia University R01NS091263	(1,737)	_
93.853 National Institute of Neurological Disorders and Stroke Johns Hopkins Univ R01NS109298	29,239	_
93.853 National Institute of Neurological Disorders and Stroke Massachusetts General Hospital U01NS095388	71,003	_
93.853 National Institute of Neurological Disorders and Stroke Massachusetts General Hospital U01NS114001	7,544	-
93.853 National Institute of Neurological Disorders and Stroke Mayo Foundation for Medical Education and Research U01NS080168	(10,427)	-
93.853 National Institute of Neurological Disorders and Stroke Mayo Foundation for Medical Education and Research R01NS097876	4,368	-
93.853 National Institute of Neurological Disorders and Stroke Myolex, Inc. R44NS113756	44,547	-

Assistance Listing	ı		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Development C					
Pass-through from other sour	ces:				
93.853	National Institute of Neurological Disorders and Stroke	Salk Institute for Biological Studies	R01NS115591	164,780	
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS095869	(9,255)	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS106655	65,089	
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS100699	7,823	_
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS099043	131,744	_
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS106513	5,981	_
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS110728	7,834	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS102289	3,120	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Cincinnati	U01NS110772	17,276	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Kentucky	R01NS116068	166,393	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Michigan	U24NS100659	4	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Michigan	U01NS099046	41,729	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Michigan	R01NS038916	3,198	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Pennsylvania	R01NS117756	10,820	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Rochester	U01NS101944	25,344	-
93.853	National Institute of Neurological Disorders and Stroke	Univ of Texas at Austin	R61NS117211	151,704	-
93.853	National Institute of Neurological Disorders and Stroke	University Of Colorado	R01NS118786	275,633	-
93.853	National Institute of Neurological Disorders and Stroke	Vanderbilt Univ	R01NS107456	197,075	-
93.853	National Institute of Neurological Disorders and Stroke	Virginia Polytechnic Inst	U01NS106655	291,876	-
93.853	National Institute of Neurological Disorders and Stroke	The Methodist Hospital Research Institute	U01NS104326	14	-
93.853	National Institute of Neurological Disorders and Stroke	Shirley Ryan AbilityLab	R21NS114815	7,220	-
93.855	National Institute of Allergy and Infectious Diseases	Albert Einstein College of Medicine	U01Al096299	11,909	-
93.855	National Institute of Allergy and Infectious Diseases	Benaroya Research Institute	UM1AI109565	49,064	-
93.855 93.855	COVID National Institute of Allergy and Infectious Diseases	Brown University	R21AI144651 P01AI106697	3,085 49,871	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases	Columbia University Family Health International	UM1AI068619	741,258	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases	Georgetown Univ	R21Al144266	26,277	-
93.855	National Institute of Allergy and Infectious Diseases	Hospital for Sick Children	R21AI119116	100,591	-
93.855	National Institute of Allergy and Infectious Diseases	The Children's Hospital of Philadelphia	R01Al130231	540,823	_
93.855	National Institute of Allergy and Infectious Diseases	The Research Institute at Nationwide Children's Hospital	U01AI131386	167,568	_
93.855	COVID National Institute of Allergy and Infectious Diseases	The Research Institute at Nationwide Children's Hospital	P01AI112524	(1,102)	_
93.855	National Institute of Allergy and Infectious Diseases	The Research Institute at Nationwide Children's Hospital	R01AI096882	11,814	_
93.855	National Institute of Allergy and Infectious Diseases	The Research Institute at Nationwide Children's Hospital	R01AI114581	31,258	_
93.855	National Institute of Allergy and Infectious Diseases	The Research Institute at Nationwide Children's Hospital	R01Al116917	7,678	_
93.855	National Institute of Allergy and Infectious Diseases	Univ of Alabama at Birmingham	R34AI150517	5,931	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of California at Los Angeles	UM1AI068636	128,128	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Florida	R01Al128750	36,566	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Florida	R01Al138554	22,126	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Louisville	R01AI129959	70,893	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Michigan	R01AI071727	63,605	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Pittsburgh	UM1AI069494	928,605	-
93.855	COVID National Institute of Allergy and Infectious Diseases	Univ of Pittsburgh	UM1AI069494	1,409	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Pittsburgh	UM1AI068619	71,617	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Pittsburgh	U01AI131285	255,699	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Pittsburgh	U01AI152969	96,041	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Washington	R01Al077628	110,429	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Washington	R01AI143916	330,177	-
93.855	National Institute of Allergy and Infectious Diseases	Univ of Wisconsin	U01Al125053	859	-
93.855	National Institute of Allergy and Infectious Diseases	University Of Colorado	R01Al143649	86,235	-
93.855 93.855	National Institute of Allergy and Infectious Diseases	University Of Colorado	R01Al141531 R01Al157802	94,627	-
	National Institute of Allergy and Infectious Diseases	University Of Colorado		113,343	-
93.855 93.855	National Institute of Allergy and Infectious Diseases	University Of Kansas Washington Univ	R01Al139198	63,292 297,993	-
93.855 93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases	Washington Univ Wright State Univ	R01Al134035 R01Al127816	297,993 131,194	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases	Yale Univ	R21AI157890	7,438	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases	Univ of North Carolina - Chapel Hill	R01Al135970	11,869	-
93.855	National Institute of Allergy and Infectious Diseases National Institute of Allergy and Infectious Diseases	Univ of North Carolina - Chapel Hill	R01Al137525	97,181	-
93.855	National Institute of Health	Univ of California at Los Angeles	UM1AI068636	321,552	-
00.000				32.,502	

THE OHIO STATE UNIVERSITY SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

FOR THE YEAR ENDED JUNE 30, 2022

93.865

93.865

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93.866

National Institute of Child Health and Human Development

National Institute of Child Health and Human Development

National Institute of Child Health and Human Development

National Institutes of Health

National Institute on Aging

Assistance List Number	Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditure to Subrecipie
rch and Developmen	nt Cluster —				
hrough from other so	ources:				
93.859	National Cancer Institute	University at Buffalo	R01GM139936	66,845	
93.859	National Institute of Allergy and Infectious Diseases	Seattle Children's Hospital	U54AI150472	341,803	
93.859	National Institute of Diabetes and Digestive and Kidney Diseases	Vanderbilt Univ	R01DK095811	45,578	
93.859	National Institute of General Medical Sciences	Cincinnati Children's Hos Med Ctr	R01GM134731	47,941	
93.859	National Institute of General Medical Sciences	e-MSion	R43GM140749	19,128	
93.859	National Institute of General Medical Sciences	Indiana Univ	R01GM118470	57,439	
93.859	National Institute of General Medical Sciences	MassMatrix	R44GM131484	28,056	
93.859	National Institute of General Medical Sciences	Michigan State Univ	R25GM135058	29,068	
93.859	National Institute of General Medical Sciences	Pennsylvania State Univ	R01GM121858	1,905	
93.859	National Institute of General Medical Sciences	Protein Metrics	R44GM133239	104,048	
93.859	National Institute of General Medical Sciences National Institute of General Medical Sciences	The Scripps Research Institute Univ of California-Davis	U54GM103368 R25GM139200	(562) 79.016	
93.859 93.859	National Institute of General Medical Sciences National Institute of General Medical Sciences	Univ of Florida	R01GM132254	69.938	
93.859	National Institute of General Medical Sciences	Univ of South Florida	R01GM137394	11,991	
93.859	National Institute of General Medical Sciences	University of Texas Health Science Center - San Antonio	R01GM114142	94,040	
93.859	National Institute of General Medical Sciences	Virginia Commonwealth Univ	R01GM1122855	139,862	
93.859	National Institute of General Medical Sciences	Virginia Commonwealth Univ	R01GM115678	11.145	
93.859	National Institute of General Medical Sciences	Univ of North Carolina - Chapel Hill	R01GM124104	46,338	
93.859	National Institute of General Medical Sciences	Kenyon College	R15GM139088	18,741	
93.859	National Institute of General Medical Sciences	Tulane University	R01GM118470	10.319	
93.865	National Institute of Child Health and Human Development	Albert Einstein College of Medicine	R01HD087993	9,992	
93.865	National Institute of Child Health and Human Development	Albert Einstein College of Medicine	R01HD105526	261,477	
93.865	National Institute of Child Health and Human Development	Brown University	P2CHD101895	21,466	
93.865	National Institute of Child Health and Human Development	Case Western Reserve Univ	R21HD106579	23,432	
93.865	National Institute of Child Health and Human Development	Columbia University	R01HD091003	63.527	
93.865	National Institute of Child Health and Human Development	Emory Univ	R01HD099480	167,135	
93.865	National Institute of Child Health and Human Development	Florida State Univ	R01HD095193	48,539	
93.865	National Institute of Child Health and Human Development	George Washington Univ	U10HD036801	(31,532)	
93.865	National Institute of Child Health and Human Development	George Washington Univ	U24HD036801	1,081,161	
93.865	National Institute of Child Health and Human Development	Harvard Univ	P01HD103133	307,586	
93.865	National Institute of Child Health and Human Development	Indiana Univ	U54HD090215	(1)	
93.865	National Institute of Child Health and Human Development	Indiana Univ	P30HD106451	258,607	
93.865	National Institute of Child Health and Human Development	Massachusetts General Hospital	R21HD098496	392	
93.865	National Institute of Child Health and Human Development	Minnesota HealthSolutions Corporation	R43HD097846	67	
93.865	National Institute of Child Health and Human Development	New York University	R01HD094830	1,136	
93.865	National Institute of Child Health and Human Development	Pennsylvania State Univ	P01HD080659	22,614	
93.865	National Institute of Child Health and Human Development	The Research Institute at Nationwide Children's Hospital	R01HD088033	37,634	
93.865	National Institute of Child Health and Human Development	The Research Institute at Nationwide Children's Hospital	R01HD098176	10,871	
93.865	National Institute of Child Health and Human Development	The Research Institute at Nationwide Children's Hospital	R01HD098175	18,511	
93.865	National Institute of Child Health and Human Development	The Research Institute at Nationwide Children's Hospital	R01HD100420	45,459	
93.865	National Institute of Child Health and Human Development	Univ of Michigan	R25HD083146	1,980	
93.865	National Institute of Child Health and Human Development	Univ of Minnesota	R01HD094081	8,411	
93.865	National Institute of Child Health and Human Development	Univ of Texas at Austin	R01HD088545	131,114	
93.865	National Institute of Child Health and Human Development	Univ of Texas at Austin	R01HD083576	(89)	
93.865	National Institute of Child Health and Human Development	Univ of Toronto	R01HD092326	1,209	
93.865	National Institute of Child Health and Human Development	Univ of Wisconsin	R01HD103356	63,261	
93.865	National Institute of Child Health and Human Development	Univ of Wisconsin	R01HD096361	9,857	
93.865	National Institute of Child Health and Human Development	University Of Colorado	P50HD027802	63,450	
93.865	National Institute of Child Health and Human Development	University of Texas Health Science Center - San Antonio	R03HD097424	(657)	
93.865	National Institute of Child Health and Human Development	Virginia Polytechnic Inst	P2CHD101912	215 412	

The Research Institute at Nationwide Children's Hospital

Virginia Polytechnic Inst

Bertec Corporation

Cleveland Clinic Fdn

Duke Univ

Univ of North Carolina - Chapel Hill

Univ of North Carolina - Chapel Hill

Brigham & Women's Hosp Inc

Case Western Reserve Univ

P2CHD101912

R01HD086139

R21HD098502

R01HD091347

R42AG062065

R01AG071611

RF1AG061797

R01AG066707

U19AG065188

215,412

8,709

49,782

127,294

10,447

200,610

94,644

26,461

850

Assistance List	•		Additional Award	Federal	Expenditures
Number	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
Research and Developmen					
Pass-through from other so	urces:				
93.866	National Institute on Aging	Johns Hopkins Univ	R01AG052510	5,933	-
93.866	National Institute on Aging	Northwestern University	R01AG059291	57,363	-
93.866	National Institute on Aging	Ohio University	R01AG067758	174,322	-
93.866	National Institute on Aging	Syracuse University	R24AG045061	46,726	-
93.866	National Institute on Aging	Univ of Alabama at Birmingham	R21AG063197	22,466	-
93.866	National Institute on Aging	Univ of Alabama at Birmingham	R01AG069251	193,557	-
93.866	National Institute on Aging	Univ of California at Los Angeles	R01AG054366	917	-
93.866	National Institute on Aging	Univ of California San Francisco	R01AG050469	51,936	-
93.866	National Institute on Aging	Univ of Michigan	R01AG040213	(6,586)	-
93.866	National Institute on Aging	Univ of Michigan	R01AG059733	63,254	-
93.866	National Institute on Aging	Univ of Pennsylvania	R01AG025152	81,759	-
93.866	National Institute on Aging	Univ of Pennsylvania	R01AG071470	78,010	-
93.866	National Institute on Aging	Univ of Pittsburgh	R01AG052978	33,130	-
93.866	National Institute on Aging	Univ of South Florida	R03AG065828	287	-
93.866	National Institute on Aging	Univ of Southern California	U19AG024904	189,942	-
93.866	National Institute on Aging	Univ of Southern California	R01AG047992	120	-
93.866	National Institute on Aging	Univ of Southern California	R01AG053798	3,203	-
93.866	National Institute on Aging	Univ of Tennessee	R01AG061325	515,807	-
93.866	National Institute on Aging	Univ of Texas at Austin	R01AG076057	25,114	-
93.866	National Institute on Aging	Univ of Texas Medical Branch at Galvestn	U24AG072458	409,297	-
93.866	National Institute on Aging	Univ of Washington	U19AG065156	53,442	-
93.866	National Institute on Aging	University of California at San Diego	R01AG061146	13,488	-
93.866	National Institute on Aging	University of Kansas Center for Research, Inc	RF1AG072760	53,352	-
93.866	National Institute on Aging	University of Miami	RF1AG060472	263,042	-
93.866	National Institute on Aging	Vanderbilt Univ	R01AG062685	175,003	-
93.867	National Eye Institute	Jaeb Ctr for Health Res	U10EY011751	31,017	-
93.867	National Eye Institute	Michigan State Univ	R01EY025752	19,110	-
93.867	National Eye Institute	Precision Vision	R42EY022545	69,149	63,508
93.867	National Eye Institute	Stanford Univ	R01EY029307	24,094	-
93.867	National Eye Institute	Tufts Medical Ctr	R01EY027315	176,975	-
93.867	National Eye Institute	Univ of Cincinnati	R01EY031452	94,042	-
93.867	National Eye Institute	Univ of Louisville	R01EY033190	114,285	-
93.867	National Eye Institute	Univ of Wisconsin	UG1EY032446	36,410	-
93.867	National Eye Institute	Washington Univ	R01EY029130	10,592	-
93.867	National Institutes of Health	Univ of Michigan	R21EY030363	7,337	-
93.879	National Library of Medicine	Indiana Univ	R01LM012605	22,078	-
93.879	COVID National Library of Medicine	Univ of Iowa	UG4LM013729	873	-
93.898	Centers for Disease Control and Prevention	OH Dept of Health	NU58DP006284	50,367	-
93.917	Health Resources and Services Administration	OH Dept of Health	Ryan White Treatment Moderinza	574	-
93.936	National Institutes of Health	Microgen, LLC	R01HD101535	13,014	-
93.958	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	MHBG (336614)	17,830	2,159
93.958	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	Block Grant	32,129	-,
93.958	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	B09SM083835	55,277	_
93.959	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	3G40-2021	31,037	_
93.959	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	B08TI083470	54.160	_
93.959	Substance Abuse & Mental Health Services Administration	OH Dept of Mental Hith & Addiction Svcs	B08TI083541	71,609	_
93.959	Substance Abuse & Mental Health Services Administration	Ohio University	UT22313	1,159	_
93.977	Centers for Disease Control and Prevention	City of Columbus	NH25PS005188	22,030	_
93.977	Centers for Disease Control and Prevention	Cols Public Health	NH25PS005188	53,824	-
93.RD	Administration for Community Living	Univ of Pittsburgh	90DPGE0014	116,912	_
93.RD	Agency for Healthcare Research and Quality	IBM Corp	HHSA29020180001C	14,459	-
93.RD	Agency for Healthcare Research and Quality	Res Triangle Inst	HHSA29020150001C	24,134	_
93.RD 93.RD	Agency for Healthcare Research and Quality	Res Triangle Inst	75Q80120D00007	159,308	-
93.RD 93.RD	Agency for Healthcare Research and Quality Agency for Healthcare Research and Quality	Res Triangle Inst	HHSA290201500007	76,339	-
93.RD 93.RD	Agency for Healthcare Research and Quality Agency for Healthcare Research and Quality	Res Triangle Inst	HHSA2902015000071 HHSA2902015000111/75Q80119F32015	76,339 57.574	-
93.RD 93.RD	Agency for Healthcare Research and Quality Agency for Healthcare Research and Quality	Res Triangle Inst	75Q80120D00004	4,066	-
93.RD 93.RD	Biomedical Advanced Research and Development Authority	Battelle Memorial Inst	HHSO1002017000111/75A50119F3	157,699	-
93.RD 93.RD	Biomedical Advanced Research and Development Authority	Beckman Coulter Inc.	BAA-100-18-SOL-0003	134,556	-
93.ND	Diomedical Advanced Research and Development Additionty	Decaritati Coulter IIIC.	DAA-100-10-30L-0003	134,330	-

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2022

Number	sting		Additional Award	Federal	Expenditures
Humber	Federal Agency Sponsor	Pass-Through Sponsor	Identification	Expenditures	to Subrecipients
search and Developmen	nt Cluster —				
s-through from other so					
93.RD	Biomedical Advanced Research and Development Authority	Regeneron Pharmaceuticals, Inc	HHSO100201700020C	35,006	
93.RD	COVID Biomedical Advanced Research and Development Authority	Syneos Health LLC	HHSO100201700014C	6,898	
93.RD	Centers for Disease Control and Prevention	Vanderbilt University Medical Center	75D30120C07637	(25,312)	
93.RD	COVID Centers for Disease Control and Prevention	Vanderbilt University Medical Center	200-2016-91801	142,255	_
93.RD	COVID Centers for Disease Control and Prevention	Vanderbilt University Medical Center Vanderbilt University Medical Center	75D30122C12914	127,974	-
93.RD	COVID Centers for Disease Control and Prevention	St. George Tanaq Corporation	75D30122C12914 75D30121C10149	210,891	-
93.RD	COVID Centers for Disease Control and Frevention COVID Centers for Medicare & Medicaid Services	Mitre Corporation	75FCMC18D0047	11,756	-
93.RD 93.RD		Indiana Univ		70,003	-
	Food and Drug Administration		75F40119C10093		-
93.RD	Health Resources and Services Administration	OH Dept of Health	48145	102,765	
93.RD	National Cancer Institute	Ambay Immune Sensors and Controls	75N91020C00031	13,084	-
93.RD	National Cancer Institute	Columbus NanoWorks, Inc	75N91019C00014	5,420	-
93.RD	National Cancer Institute	Leidos, Inc	HHSN2612015000031	407,344	-
93.RD	National Cancer Institute	Leidos, Inc	75N91019D00024	11,109	-
93.RD	National Institute of Allergy and Infectious Diseases	St. Jude Children's Research Hospital	75N93021C00016	514,107	-
93.RD	COVID National Institute of Allergy and Infectious Diseases	St. Jude Children's Research Hospital	HHSN272201400006C	175,309	-
93.RD	COVID National Institutes of Health	Univ of Chicago	75N92020D00018/75N92020F00001	168,933	-
93.RD	COVID National Institutes of Health	Worcester Polytechnic Institute	R01GM135923	38,624	-
	Total Department of Health and Human Services Pass-Through Awards			44,806,938	2,835,3
ice of the Director of N	National Intelligence				
95.RD	Intelligence Advanced Research Projects Activity	Battelle Memorial Inst	2021-20102000001	250,977	71,2
	Total Office of the Director of National Intelligence Pass-through Awards	\$		250,977	71,23
cial Security Administr	cration				
96.007	Social Security Administration	Univ of Wisconsin	RDR18000001	121,535	-
	Total Social Security Administration Pass-through Awards			121,535	
				121,000	
partment of Homeland 97.061	US Department of Homeland Security	Univ of Southern California	17STQAC00001	18,848	-
	Total Department of Hermaland Country Board Manager Assessed			18,848	
	Total Department of Homeland Security Pass-through Awards			10,040	-
ency for International I	•				
98.001	Agency for International Development	Global Environment and Technology Foundation	7200AA18CA00033	67,955	-
98.001 98.001	Agency for International Development Agency for International Development	Michigan State Univ	7200AA18LE00003	29,758	15,2
98.001 98.001 98.001	Agency for International Development Agency for International Development Agency for International Development	Michigan State Univ National Academy of Sciences	7200AA18LE00003 AID263A1500002	29,758 (2)	-
98.001 98.001 98.001 98.001	Agency for International Development Agency for International Development Agency for International Development Agency for International Development	Michigan State Univ National Academy of Sciences Purdue Univ	7200AA18LE00003 AID263A1500002 7200AA19LE00003	29,758 (2) 154,963	- 15,2 - 83,7
98.001 98.001 98.001	Agency for International Development Agency for International Development Agency for International Development	Michigan State Univ National Academy of Sciences	7200AA18LE00003 AID263A1500002	29,758 (2)	83,7
98.001 98.001 98.001 98.001	Agency for International Development Agency for International Development Agency for International Development Agency for International Development	Michigan State Univ National Academy of Sciences Purdue Univ	7200AA18LE00003 AID263A1500002 7200AA19LE00003	29,758 (2) 154,963	-
98.001 98.001 98.001 98.001 98.001	Agency for International Development	Michigan State Univ National Academy of Sciences Purdue Univ Univ of Georgia	7200AA18LE00003 AID263A1500002 7200AA19LE00003 7200AA18CA00003	29,758 (2) 154,963 67,964	83,7 41,4 175,2
98.001 98.001 98.001 98.001 98.001 98.001	Agency for International Development	Michigan State Univ National Academy of Sciences Purdue Univ Univ of Georgia Virginia Polytechnic Inst	7200AA18LE00003 AID263A1500002 7200AA19LE00003 7200A418CA00003 AIDOAAL1500001	29,758 (2) 154,963 67,964 200,617	83,7 41,4 175,2 20,0
98.001 98.001 98.001 98.001 98.001 98.001 98.011	Agency for International Development Total Agency for International Development	Michigan State Univ National Academy of Sciences Purdue Univ Univ of Georgia Virginia Polytechnic Inst	7200AA18LE00003 AID263A1500002 7200AA19LE00003 7200A418CA00003 AIDOAAL1500001	29,758 (2) 154,963 67,964 200,617 21,550 542,805	83,7: 41,4: 175,2 20,00
98.001 98.001 98.001 98.001 98.001 98.001	Agency for International Development Total Agency for International Development	Michigan State Univ National Academy of Sciences Purdue Univ Univ of Georgia Virginia Polytechnic Inst	7200AA18LE00003 AID263A1500002 7200AA19LE00003 7200A418CA00003 AIDOAAL1500001	29,758 (2) 154,963 67,964 200,617 21,550	83,7 41,4 175,2 20,0

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2022

Assistance L Number	•	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Student Financial Aid Clu	uster —				
Funds received directly for	rom the following federal agencies:				
Department of Education	on				
84.007	Supplemental Education Opportunity Grant			\$ 2,860,882	\$ -
84.033	Federal Workstudy Program			3,909,661	-
84.038	Perkins Loans outstanding balance at 7/1/2021			23,951,416	_
84.038	Perkins administrative cost allowance and collection costs			79,281	-
84.063	Pell Grant Program			58,092,607	-
84.268	Direct Lending subsidized student advances during fiscal year 2022			47,042,746	-
84.268	Direct Lending unsubsidized student advances during fiscal year 2022			178.449.985	_
84.268	Direct Lending parent (undergraduate) advances during fiscal year 2022			55,718,626	_
84.268	Direct Lending parent (graduate) advances during fiscal year 2022			36,722,694	-
84.379	Teacher Ed Assistance for College and Higher Ed Grants			22,632	-
	Total Department of Education Direct Awards			406,850,530	-
Department of Health a	and Human Services				
93.264	Nursing Faculty Loans outstanding balance at 7/1/2021			1,073,619	-
93.264	Nursing Faculty Loans advances during fiscal year			172,052	-
93.342	Health Professions Student Loans outstanding balance at 7/1/2021			13,143,761	-
93.342	Health Professions Student Loans advances during fiscal year			2,002,672	-
93.342	Primary Care Loans, outstanding balance at 7/1/2021			318,839	-
93.342	Disadvantaged Student Loans outstanding balance at 7/1/2021			22,186	-
93.364	Nursing Student Loans outstanding balance at 7/1/2021			540,634	-
93.364	Nursing Student Loans advances during fiscal year			23,000	-
93.U01	ARRA Nursing Faculty Loan outstanding balance at 7/1/2021			5,492	-
	Total Department of Health and Human Services Direct Awards			17,302,255	-
Subtotal Student Fina	incial Aid Cluster			\$ 424,152,785	\$ -

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance Listir Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Ex	Federal penditures	Expenditures to Subrecipients
Trio Cluster — Funds received directly from	the following federal agencies:					
Department of Education 84.042 84.042A 84.047A 84.047A	US Department of Education		P042A150002 P042A200030 P047A170955 P047A171153	\$	(87) \$ 303,942 305,572 284,950	- - - -
Subtotal Trio Cluster Health Centers Cluster — Funds received directly from	the following federal agencies:			<u>\$</u>	894,377	
Department of Education 93.224 93.224 93.224 93.224 93.527	COVID Health Resources and Services Administration Health Resources and Services Administration Total Health Resources & Services Admin Direct Awards		H8CCS34891 H8DCS36665 H8ECS37973 H8F40989 H80CS33660	\$	1,540 \$ 24,503 3,262 512,533 10,750 552,588	- - - -
Head Start Cluster — Funds received directly from	the following federal agencies:					
Department of Health and 93.600 93.600 93.600 93.600	Human Services Administration for Children and Families COVID Administration for Children and Families Administration for Children and Families School Psych CDC Head Start Total Department of Health and Human Services Direct Awards		05HP000316 05HP000316 05HE001129	\$	4,096,668 \$ 55,646 44,688 3,822	- - - -
Subtotal Head Start Clus				\$	4,200,824	

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance List Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	E	Federal xpenditures	-	nditures recipients
Supplemental Nutrition Ass Pass throughs from other s	sistance Program Cluster – sources:						
Department of Agricultur 10.561	re USDA Food and Nutrition Service	OH Dept of Job & Family Services	192OH129Q3903	\$	1,003,675	r.	116,306
10.561 10.561 10.561	USDA Food and Nutrition Service USDA Food and Nutrition Service USDA Food and Nutrition Service	OH Dept of Job & Family Services OH Dept of Job & Family Services OH Dept of Job & Family Services	212OH129Q3903 212OH129Q3903 222OH129Q3903	Φ	3,343,387 5,886,742	Φ	122,094
	Total Department of Agriculture Pass-Through Awards				10,233,804		238,400
Subtotal Supplemental	Nutrition Assistance Program Cluster			\$	10,233,804	\$	238,400
CDBG - Entitlement Grants Pass throughs from other s							
Department of Housing a 14.218 14.218	and Urban Development US Department of Housing and Urban Development US Department of Housing and Urban Development	City of Cleveland Department of Economic Development City of Cleveland Department of Economic Development	PRELIMINARY AWARD CT8006SG-2022-14	\$	51,368 74,830	\$	- -
	Total Department of Housing and Urban Development Pass	s-Through Awards			126,198		-
Subtotal CDBG - Entitle	ements Grants Cluster			\$	126,198	\$	
HOPE VI Cluster— Pass throughs from other s	sources:						
Department of Housing a 14.889	and Urban Development US Department of Housing and Urban Development	Urban Strategies Inc	Agreement dated 9/4/2020	\$	1,103	\$	_
	Total Department of Housing and Urban Development Pass	s-Through Awards			1,103		
Subtotal HOPE VI Clust		-		\$	1,103	\$	
Fish and Wildlife Cluster — Pass throughs from other s	sources:						
Department of the Interior	or US Fish and Wildlife Service	OH Division of Wildlife	F-69-P-27	\$	(57)	¢	(57)
15.605 15.605 15.611 15.611 15.611 15.611	US Fish and Wildlife Service	OH Division of Wildlife OH Division of Wildlife OH Dept of Natural Resources OH Dept of Natural Resources OH Dept of Natural Resources OH Division of Wildlife OH Division of Wildlife	F-69-P-28 F-69-P-29 F20AF12094 F20AF12023 F21AF03255 W-134-P-24 F20AF12094	*	321,302 1,368,287 63,051 2,302 37,168 (1,387) 51,295	*	24,282 40,813 - - - - -
15.611	US Fish and Wildlife Service	OH Division of Wildlife	F21AF03255		267,913		<u>-</u>
	Total Department of the Interior Pass-Through Awards				2,109,874		65,038

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance Lie Number	sting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	E	Federal xpenditures	-	nditures recipients
Subtotal Fish and Wild	flife Cluster			\$	2,109,874	\$	65,038
WIOA Cluster — Pass throughs from other	sources:						
Department of Labor 17.258 17.259 17.278	Employment and Training Administration Employment and Training Administration Employment and Training Administration	OH Dept of Job & Family Services OH Dept of Job & Family Services OH Dept of Job & Family Services	C-2223-15-0595 C-2223-15-0595 C-2223-15-0595	\$	143,277 143,277 143,277	\$	- - -
Subtotal WIOA Cluste	Total Department of Labor Pass-Through Awards			\$	429,831 429,831	\$	
Gubiotal WIGA Gluste	•			Ψ	420,001	Ψ	
Highway Planning and Co Pass throughs from other							
Department of Transpor	rtation						
20.205 20.205 20.205 20.205 20.205 20.205 20.205 20.205	Federal Highway Administration	OH Dept of Transportation MS Consultants,Inc MS Consultants,Inc	Agreement #34657 E180649 E1800651 E180652 E190480 E200999 Inlet protection comparison 36497	\$	92,401 889,480 193,597 114,010 131,221 104,430 90,295 41,062	\$	44,126 634,984 - - - 41,031 - - -
	Total Department of Transportation Pass-Through Awar	ds			1,656,496		720,141
Subtotal Highway Plan	nning and Construction Cluster			\$	1,656,496	\$	720,141
Highway Safety Cluster - Pass throughs from other	· sources:						
Department of Transpor							
20.616 20.616	US Department of Transportation US Department of Transportation	OH Dept of Public Safety OH Dept of Public Safety	69A3752030000405DOHL 69A3752130000405DOH	\$	114,788 101,885	\$	87,751 68,995
	Total Department of Transportation Pass-Through Awar	ds			216,673		156,746
Subtotal Highway Safe	ety Cluster			\$	216,673	\$	156,746
Special Education (IDEA) Pass throughs from other							
Department of Education	on						
84.027 84.027	US Department of Education US Department of Education	OH Dept of Educ OH Dept of Educ	H027A200111 H027A210111	\$	(1,299) 141,746	\$	-
	See Accompa	nying Notes to the Schedule of Expenditures of Fede	ral Awards				188

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

	Assistance Listir Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification		Federal penditures	Expenditures to Subrecipients
	84.027A 84.027A	US Department of Education US Department of Education	OH Dept of Educ OH Dept of Educ	H027A200111 H027A210111		26,150 118,348	
		Total Department of Education Pass-Through Awards				284,945	
Subtot	al Special Education	on (IDEA) Cluster			\$	284,945	s -
Oubtot	ai Opeciai Educatio	on (IDEA) diddiel			Ψ	204,040	Ψ -
Aging Clu Pass thro	ster — ughs from other so	ources:					
Departme	ent of Health and						
	93.044 93.044	Administration for Community Living	Central Ohio Area Agency on Aging	1901OHOASS 2001OHOASS	\$	12,705 8,686	\$ -
	93.044	Administration for Community Living	Central Ohio Area Agency on Aging	2001OHOA33		0,000	-
		Total Department of Health and Human Services Pass-Through	n Awards			21,391	-
Subtot	al Special Education	on (IDEA) Cluster			\$	21,391	\$ -
477 Cluste Pass thro	er — ughs from other so	purces:					
Departme	ent of Health and	Human Services					
	93.558	Administration for Children and Families	Ohio Governor's Office of Faith-Based and Community Initiatives	1502OHTANF	\$	(4,573)	\$ -
	93.558	Administration for Children and Families	Northwest State Community College	2001OHTANE		1,619	-
	93.558 93.558	US Department of Health & Human Services US Department of Health & Human Services	Butler County Board of Commissioners Community Action Committee of Pike County	2001OHTANF 1901OHTANF		319,895 8,118	-
	93.558	US Department of Health & Human Services	Franklin County Job And Family Services	2001OHTANF		33,547	_
	93.558	US Department of Health & Human Services	OH Dept of Job & Family Services	2101OHTANF		2.110	_
	93.558	US Department of Health & Human Services	Ohio Governor's Office of Faith-Based and Community Initiatives	2101OHTANF		183,591	_
	93.558	US Department of Health & Human Services	Produce Perks Midwest	G-2021-17-0419		2,975	-
	93.558	US Department of Health & Human Services	Produce Perks Midwest	G-2223-17-0624		8,878	-
		Total Department of Health and Human Services Pass-Through	n Awards			556,160	
0.1.1	1.477.01.1				•	550 400	•
Subtot	al 477 Cluster				\$	556,160	5 -
CCDF Clu Pass thro	uster — ughs from other so	ources:					
Departme	ent of Health and	Human Services					
•	93.575	US Department of Health & Human Services	Wyoming Department of Family Services	Agreement Dated 6/3/20	\$	32,063	\$ 12,163
	93.575	US Department of Health & Human Services	Ohio Child Care Resource & Referral Association	2101OHCSC6		60,759	-
		Total Department of Health and Human Services Pass-Through	n Awards			92,822	12,163
Subtot	al CCDF Cluster				\$	92,822	\$ 12,163
					-	*	· · · · · · · · · · · · · · · · · · ·

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance L Number	3	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Head Start Cluster –					
Pass throughs from othe	er sources:				
Department of Health a	and Human Services				
93.600	Administration for Children and Families	OH Dept of Educ	05CD4006	\$ 1,22	7 \$ -
93.600	Administration for Children and Families	OH Dept of Educ	05CD004072	21,10	2 -
93.600	Administration for Children and Families	Ohio Head Start Association	05CD004072	34,19	1 -
	Total Department of Health and Human Services Pass	s-Through Awards		56,52) -
				, .	
				\$ 56,520) \$ -
Subtotal Head Start C	Liuster				
Medicaid Cluster -					
Pass throughs from other	er sources:				
Department of Health a	and Human Services				
93.778	Centers for Medicare & Medicaid Services	Case Western Reserve Univ	G-2021-05-0069	\$ 1,95	3 \$ -
93.778	Centers for Medicare & Medicaid Services	Case Western Reserve Univ	2105OH5ADM	176,05	5 -
93.778	Centers for Medicare & Medicaid Services	Ohio Department of Medicaid	ODM202113	43,96	6,088
93.778	Centers for Medicare & Medicaid Services	Ohio Department of Medicaid	1705OH5ADM	31,07	2 20,210
93.778	Centers for Medicare & Medicaid Services	Ohio Department of Medicaid	1905OH5ADM	530,54	2 617,331
93.778	Centers for Medicare & Medicaid Services	Ohio Department of Medicaid	2005OH5ADM	337,59	97,030
93.778	Centers for Medicare & Medicaid Services	Ohio Department of Medicaid	1905OH5ADM / 2005OH5ADM	370,81) -
93.778	Centers for Medicare & Medicaid Services	Ohio Department of Medicaid	2105OH5ADM	18,574,51	5,468,331
	Total Department of Health and Human Services Pas	s-Through Awards		20,066,50	6,208,990
Subtotal Medicaid Clu	uster			\$ 20,066,50	5 \$ 6,208,990

Assistance Listi Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Funds received directly from Other Programs:	n the following federal agencies				
Other i regrams.					
Department of Agriculture					
10.147	USDA Farm Service Agency		FSA21CPT0011968	2,682	\$ -
10.310	National Institute of Food and Agriculture		20206703731075	82,394	_
10.310	National Institute of Food and Agriculture		20216703734217	100,199	_
	·		CFDA 10.310 Subtotal	182,593	-
10.329	National Institute of Food and Agriculture		20217000635562	117,948	
10.329	National Institute of Food and Agriculture		2.0177E+13	118,520	-
10.020	Hattorial motifate of Food and Agriculture		CFDA 10.329 Subtotal	236,468	
			OF DA 10.025 Gubiotal	200,400	
10.511	Cooperative Extension Service			12,242,229	-
10.514	Cooperative Extension Service			1,908,113	-
10.515	Cooperative Extension Service			65,930	-
10.500	National Institute of Food and Agriculture		20164152025616	179,372	89,156
10.500	National Institute of Food and Agriculture		20174152127067	109,670	-
10.500	National Institute of Food and Agriculture		20174159027337	82,163	23,392
10.500	National Institute of Food and Agriculture		20184610028783	42,374	-
10.500	National Institute of Food and Agriculture		20204610032842	173,685	-
10.500	National Institute of Food and Agriculture		20214159034812	87,574	63,402
			CFDA 10.500 Subtotal	674,838	175,950
10.777	USDA Foreign Agricultural Service		FX19BF-10777R017	27	-
10.855	USDA Rural Development		OH 727-A58	3,849	-
10.902	Natural Resources Conservation Service		NR195E34XXXXC001	273,655	-
10.962	USDA Foreign Agricultural Service		FX21CO-10962R016	42,538	_
10.962	USDA Foreign Agricultural Service		FX20CO-10962R006	20,940	-
			CFDA 10.962 Subtotal	63,478	-
	Total Department of Agriculture Direct Awards		_	15,653,862	175,950
Netheral County & Atro-	and and Administration				
National Oceanic & Atmos	spheric Administration				
11.417	National Oceanic & Atmospheric Administration		NA21OAR4170004	30,232	-
11.417	National Oceanic & Atmospheric Administration		NA21OAR4170016	27,379	-
11.417	National Oceanic & Atmospheric Administration		NA21OAR4170029	11,447	-
11.417	National Oceanic & Atmospheric Administration		NA21OAR4170040	49,027	-
11.417	National Oceanic & Atmospheric Administration		NA21OAR4170068	29,338	-
11.417	National Oceanic & Atmospheric Administration		NA22OAR4170061	27,905	-
11.417 11.417	National Oceanic & Atmospheric Administration National Oceanic & Atmospheric Administration		NA22OAR4170077 NA22OAR4170006	27,820 25,625	-
11.417	National Oceanic & Atmospheric Administration		NA22OAR4170006 NA22OAR4170007	25,625	-
11.417	National Oceanic & Authospheric Authinistration		NA220AK4170007	25,025	-
	Total National Oceanic & Atmospheric Administration Direct Awards		_	254,398	-
Department of State					
19.900	US Department of State		SRB10019CA0179	59,666	-
	Total Department of State Direct Awards		_	59,666	-

Assistance Li Number	-	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipient
nds received directly fr ner Programs:	rom the following federal agencies				
partment of Transpo	rtation				
20.106	COVID Federal Aviation Administration		3-39-0027-034-2020	(41,718)	-
20.106	Federal Aviation Administration		3-39-0027-038-2021	79,613	-
20.106	COVID-19 Federal Aviation Administration			58,937	
	Total Department of Transportation Direct Awards		-	96,832	
tional Endowment fo	or the Humanities				
45.301	Institute Of Museum And Library Services		MA-40-18-0537-18	90,275	
45.312	COVID-19 Institute Of Museum And Library Services		ARPML-250565-OMLS-22	24,917	-
45.024	National Endowment for the Arts		1885317-34-21	20,000	
45.024	National Endowment for the Arts		1865587-54-21	15,000	-
45.024	COVID-19 National Endowment for the Arts		1902493-66-22	54,595	-
			CFDA 45.024 Subtotal	89,595	
	Total National Endowment for the Humanities Direct Awards		-	204,787	-
tional Science Found	dation				
47.076	National Science Foundation Div of Undergraduate Education		1557250	226,545	-
47.079	National Science Foundation Office of International Science & Eng		1952282	5,995	-
	Total National Science Foundation Direct Awards		-	232,540	-
partment of Veterans	s Affairs				
64.011	Veterans Dental Care			251,512	
64.125	Vocational and Educational Counseling for Veterans			4,705	-
	Total Department of Veterans Affairs Direct Awards		-	256,217	-
partment of Education	on				
84.015A	US Department of Education		P015A180036	251,875	
84.015A	US Department of Education		P015A180037	249,138	
84.015A	US Department of Education		P015A180070 CFDA 84.015A Subtotal	243,193 744,206	
			OF DA 04.010A Sublotal	744,200	
84.015B	US Department of Education		P015B180036	342,438	
84.015B	US Department of Education		P015B180037	297,812	
84.015B	US Department of Education		P015B180070	362,449	14,8
			CFDA 84.015B Subtotal	1,002,699	14,

Assistance List Number	ing Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Funds received directly fro Other Programs:	m the following federal agencies				
84.021A	US Department of Education		P021A190036	88,256	-
84.022A	US Department of Education			977	
84.310	US Department of Education		U310A180049	1,059,266	272,114
84.325D	US Department of Education		H325D140084	8,052	_
84.325D	US Department of Education		H325D210084	45,961	-
			CFDA 84.015A Subtotal	54,013	-
84.325K	US Department of Education		H325K180130	216,142	-
84.335A	US Department of Education		P335A180304	354,824	-
84.365Z	US Department of Education		T365Z210058	216,341	115,650
84.425E	COVID-19 Higher Education Emergency Relief Fund - Student Portion			60,507,846	-
84.425F	COVID-19 Higher Education Emergency Relief Fund - Institutional Portion		P425F204697 - 20A	57,527,551	-
84.425M	COVID-19 Higher Education Emergency Relief Fund - Strengthening Institutions Program			1,023,090	-
	Total Department of Education Direct Awards		_	122,795,211	402,564
Department of Health and	d Human Services				
93.059	Health Resources and Services Administration		D88HP37551	537.794	498.093
93.184	Centers for Disease Control and Prevention		NU27DD000032	358,757	92,833
93.243	Substance Abuse & Mental Health Services Administration		H79SM081411	45,996	-
93.243	Substance Abuse & Mental Health Services Administration		H79TI082551	139,334	-
			CFDA 93.243 Subtotal	185,330	-
93.247	Health Resources and Services Administration		T94HP31875	(21,513)	-
93.318	Centers for Disease Control and Prevention		NU2HGH000069	2,543,077	_
93.318	COVID Centers for Disease Control and Prevention		NU2HGH000069	17,317	-
93.318	COVID Centers for Disease Control and Prevention		NU3HCK000014	241,838	-
			CFDA 93.318 Subtotal	2,802,232	-
93.359	Health Resources and Services Administration		U4E42426	221,646	
93.396	Health Resources and Services Administration		H80CS33660	1,009,955	-
			H00C333000		-
93.461	COVID-19 Testing for the Uninsured			1,073,130	-
93.498	COVID-19 Provider Relief Fund		00000000	22,598,471	
93.632	COVID Administration for Community Living		90DDC50037	31,386	-
93.732	Health Resources and Services Administration		T25HP37606	706,551	-
93.732	Health Resources and Services Administration		T98HP33410	490,822	-
93.732	COVID Health Resources and Services Administration		MC142095	420,002	-
			CFDA 93.732 Subtotal	1,617,375	-
93.788	Substance Abuse & Mental Health Services Administration		H79TI081897	20,680	_
93.788	Substance Abuse & Mental Health Services Administration		H79TI081697	403,972	9,449
93.766	Substance Abuse & Mental Health Services Administration		CFDA 93.788 Subtotal	424,652	9,449
				-	
93.884	Health Resources and Services Administration		T0BHP30007	278,929	-
	Total Department of Health and Human Services Direct Awards		_	31,118,144	600,375

THE OHIO STATE UNIVERSITY SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance List Number	ng Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification		Expenditures Subrecipients
Funds received directly fro Other Programs:	n the following federal agencies				
Corporation for National	and Community Service				
94.013	Corporation for National and Community Service		19VSNOH001	53,020	-
	Total Corporation for National and Community Service Direct Awards			 53,020	-
Subtotal funds received	directly from federal agencies			\$ 170,724,677 \$	1,178,889

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS FOR THE YEAR ENDED JUNE 30, 2022

Assistance Listi Number Pass-through from other so	Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Other Programs:	urces.				
Department of Agriculture	9				
10.001	USDA Agricultural Research Service	Univ of Arkansas	58-8250-7-001	131,933	\$ -
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20163864025381	27	-
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20173864026916	34,188	=
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20193864029879	113,382	-
10.215	National Institute of Food and Agriculture	Univ of Minnesota	20203864031522	24,568	-
			CFDA 10.215 Subtotal	172,165	-
10.229	National Institute of Food and Agriculture	eXtension	20217704134831	5,137	-
10.311	National Institute of Food and Agriculture	Ohio Ecological Food and Farm Association	20194940030033	12,165	-
10.319	National Institute of Food and Agriculture	Univ of Nebraska	20203850432409	39,781	_
10.319	National Institute of Food and Agriculture	Univ of Nebraska	20213850435299	9,451	_
			CFDA 10.319 Subtotal	49,232	-
10.329	National Institute of Food and Agriculture	Michigan State Univ	20187000628883	2,215	-
10.331	National Institute of Food and Agriculture	Produce Perks Midwest	20217003435364	55,458	-
10.331	National Institute of Food and Agriculture	Produce Perks Midwest	20187002528154	44,484	
			CFDA 10.331 Subtotal	99,942	-
10.351	US Department of Agriculture	Rural Action	41005158504258	10,006	-
10.500	National Institute of Food and Agriculture	Kansas State Univ	20184866128954	4,884	-
10.500	National Institute of Food and Agriculture	Kansas State Univ	20224869636671	1,698	-
			CFDA 10.500 Subtotal	6,582	-
10.525	National Institute of Food and Agriculture	lowa State Univ	20197002830436	22,198	-
10.525	National Institute of Food and Agriculture	Ohio Department Of Agriculture	20217003535722	142,378	=
10.525	National Institute of Food and Agriculture	University of Illinois	20207002832728	38,204	-
	·	,	CFDA 10.525 Subtotal	202,780	-
10.558	US Department of Agriculture	OH Dept of Educ	Agreement Dated 12/9/20	25,810	-
10.558	US Department of Agriculture	OH Dept of Educ	Agreement Dated 11/9/21	2,188	-
	-		CFDA 10.558 Subtotal	27,998	-
10.902	Natural Resources Conservation Service	Great Lakes Comsn	69-3A75-17-224	34,798	-
10.902	Natural Resources Conservation Service	Great Lakes Comsn	NR203A750022C001	8,314	-
			CFDA 10.902 Subtotal	43,112	-
	Total Department of Agriculture Pass-Through Awards		-	763,267	-

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance List Number	ting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Pass-through from other so	purces:				
Department of Labor					
11.008	National Oceanic & Atmospheric Administration	North Am Assoc for Environ Educ	NA18SEC0080002	4,139	-
11.611	US Department of Commerce	Ohio Development Services Agency	MEPG20200048	505,058	-
11.611	COVID US Department of Commerce	Ohio Development Services Agency	70NANB20H035	68,496	-
11.611	US Department of Commerce	Ohio Development Services Agency	70NANB21H144	650,626	-
			CFDA 11.611 Subtotal	1,224,180	-
	Total Department of Labor Pass-Through Awards		-	1,228,319	-
Department of Defense					
12.630	Army Research Office	Technology Student Association	W911SR-15-2-0001	14,121	-
	Total Department of Defense Pass-Through Awards		-	14,121	-
Department of Justice					
16.548	Office of Juvenile Justice and Delinquency Prevention	OH Dept Youth Services	2020-JV-PYD-3001	4,584	-
16.548	Office of Juvenile Justice and Delinquency Prevention	OH Dept Youth Services	2020-JP-FX-0001	47,070	-
		·	CFDA 16.548 Subtotal	51,654	-
16.575	US Department of Justice	Ohio Office of Attorney General	2022VOCA	562,316	-
16.726	Office of Juvenile Justice and Delinquency Prevention	National 4-H Council	2019-MU-FX-0002	1	-
16.726	Office of Juvenile Justice and Delinquency Prevention	National 4-H Council	2019-JY-FX-0026	26,182	-
16.726	Office of Juvenile Justice and Delinquency Prevention	National 4-H Council	2020-JY-FX-0024	129,730	-
16.726	Office of Juvenile Justice and Delinquency Prevention	National 4-H Council	2020-JU-FX-0031	27,820	-
			CFDA 16.726 Subtotal	183,733	-
	Total Department of Justice Pass-Through Awards		-	797,703	-
Department of State					
19.009	US Department of State	World Learning, Inc	SECAGD20CA0045	859	-
	Total Department of State Pass-through Awards		-	859	-
Department of Treasury					
21.019	COVID Dept of Treasury	Mahoning County Board of Commissioners	Agreement dated 9/3/2020	46,983	-
21.019	COVID Dept of Treasury	Miami County Board of Commissioners	Agreement Dated 11/12/2020	9,592	-
21.019	COVID Dept of Treasury	Seneca County Board of Commissioners	Agreement dated 12/16/2020	187	-
21.019	COVID Dept of Treasury	Defiance County Board of Commissioners	Agreement dated 4/11/2021	2,310	-
	Total Department of Treasury Pass-through Awards		-	59,072	-
Appalachian Regional C	ommission				
23.002	Appalachian Regional Commission	Catalyst Connection	PW-19708-IM-19	6,548	-
	Total Appalachian Regional Commission Pass-Through A	wards	-	6,548	-

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance Li Number	sting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Pass-through from other : Other Programs:	sources:				
National Aeronautics ar	nd Space Administration				
45.129	National Endowment For The Humanities	OH Humanities Council	SO-276940-21	7,089	-
	Total National Aeronautics and Space Administration Pas	s-Through Awards	-	7,089	-
National Endowment fo	r the Humanities				
45.310	Institute Of Museum And Library Services	State Library Board	LS-246553-OLS-20	1,000,000	-
45.310	Institute Of Museum And Library Services	State Library Board	LS-249982-OLS-21	505,793	-
	Total National Endowment for the Humanities Pass-Throu	gh Awards	-	1,505,793	-
National Science Found	lation				
47.076	National Science Foundation Div of Human Resource Develop	ment American Chemical Society	1834545	56,692	-
	Total National Science Foundation Pass-Through Awards		-	56,692	-
Small Business Admini	stration				
59.037	COVID Small Business Administration	Ohio Development Services Agency	SBAHQ20C0018	26,066	_
59.037	Small Business Administration	Ohio Development Services Agency	Award dated 10/01/2020	87,918	-
59.037	Small Business Administration	Ohio Development Services Agency	OSBG-22-314	224,123	-
			CFDA 59.037 Subtotal	338,107	-
59.075	COVID-19 Small Business Administration	Shuttered Venue Operators Program	SBAHQ21SV000436	10,000,000	-
59.075	COVID-19 Small Business Administration	Shuttered Venue Operators Program	SBAHQ21SV003762	273,470	-
			CFDA 59.075 Subtotal	10,273,470	-
	Total Small Business Administration Pass-through Award	s	-	10,611,577	-
Environmental Protection	on Agency				
66.716	Environmental Protection Agency	eXtension	83698001	13,273	-
	Total Environmental Protection Agency Pass-Through Aw	ards	-	13,273	-
Department of Education	on				
84.215J	US Department of Education	Binghamton University	U215J190083	82,840	-
84.287	US Department of Education	Columbiana County Educational Service Center	S287C210035	10,273	-
84.323	US Department of Education	OH Dept of Educ	H323A170026	89,746	-
84.325H	US Department of Education	East Carolina Univ	H325H190001	161,051	-
84.425	US Department of Education	Prevention First	2100697	10,653	-
84.425	US Department of Education	United Local Schools	Agreement dated 9/3/2021	3,878	-
84.425C	US Department of Education	Ohio Department of Higher Education	S425C200040	48,370	-
84.425C	COVID-19 US Department of Education	Ohio Department of Higher Education	S425C200040	5,860,555	-
	Total Department of Education Pass-Through Awards		-	6,267,366	-

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance Listing	g Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Pass-through from other soul Other Programs:	rces:				
Department of Health and I	Human Services				
93.052	Administration for Community Living	Franklin County Office on Aging	2001OHOAFC	1,651	-
93.136	Centers for Disease Control and Prevention	Franklin County Public Health	NU17CE924987	47,718	-
93.243	Substance Abuse & Mental Health Services Administration	Alcohol, Drug and Mental Health Board of Franklin County	H79SM081154	346.790	-
93.243	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	H79SP082771	121,204	-
			CFDA 93.243 Subtotal	467,994	-
93.297	Office of Population Affairs	The Research Institute at Nationwide Children's Hospital	TP1AH000212	193,499	_
93.495	Centers for Disease Control and Prevention	Access HealthColumbus	CDCCCR012021	150,535	_
93.576	Administration for Children and Families	U.S. Committee for Refugees and Immigrants	MOU dated 6/11/2019	714	
30.070	Administration for Grindren and Lamines	O.O. Committee for redugees and immigrants	WOO dated 0/11/2013	714	_
93.590	US Department of Health & Human Services	Univ Hospitals of Cleveland	G-1801OHBCAP	6,965	-
93.590	US Department of Health & Human Services	Univ Hospitals of Cleveland	2101OHHBCC6	23,139	-
			CFDA 93.590 Subtotal	30,104	-
93.630	Administration for Community Living	Ohio Developmental Disabilities Planning Council	2101OHSCDD	44,471	-
93.630	US Department of Health & Human Services	Ohio Developmental Disabilities Planning Council	2001OHSCDD	17,658	-
	'	·	CFDA 93.630 Subtotal	62,129	-
93.645	Administration for Children and Families	Ohio Department of Job and Family Services	2001OHCWSS	44,262	_
93.667	Administration for Children and Families	Ohio Department of Job and Family Services	2101OHSOSR	116.926	_
93.670	Administration for Children and Families	Help Network of Northeast Ohio	Agreement dated 9/15/2021	2.400	-
93.767	US Department of Health & Human Services	OH Dept of Health	02540034CL0321 / 02540034CL0422	15,000	-
93.788	Substance Abuse & Mental Health Services Administration	OH Dept of Health	H79TI081684	89,790	
93.788	Substance Abuse & Mental Health Services Administration	OH Dept of Mental Hith & Addiction Svcs	H79Tl083294	273,440	-
93.788	Substance Abuse & Mental Health Services Administration	OH Dept of Mental Hith & Addiction Svcs OH Dept of Mental Hith & Addiction Svcs	3HB1-2021 - NCE (336644) 4221C	20,000	-
93.700	Substance Abuse & Wentan Health Services Authinistration	On Dept of Mental Filth & Addiction Svcs	CFDA 93.788 Subtotal	383,230	<u>-</u> _
93.855	COVID National Institute of Allergy and Infectious Diseases	Univ of Pittsburgh	3UM1AI069494-14S1	55.456	
93.884	Health Resources and Services Administration	•	T13HP31910	14,331	-
93.898		University of Illinois OH Dept of Health	02540034CL0321 / 02540034CL0422	1,850	-
93.090	US Department of Health & Human Services	On Dept of nearth	02540034CL0321702540034CL0422	1,650	-
93.958	Substance Abuse & Mental Health Services Administration	New Horizons Mental Health Services	3A90-36614	23,678	-
93.958	COVID Substance Abuse & Mental Health Services Administration	OH Dept of Health	B09SM084002	1,338	-
93.958	COVID Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	B09SM084002	778,358	-
93.958	Substance Abuse & Mental Health Services Administration	Southeast Healthcare	B09SM082623	46,433	-
			CFDA 93.958 Subtotal	849,807	-
93.959	Substance Abuse & Mental Health Services Administration	OH Dept of Mental HIth & Addiction Svcs	B08TI083541	25,414	_
93.989	John E Fogarty International Center	Univ of North Carolina - Chapel Hill	D43TW011548	27,708	-
	Total Department of Health and Human Services Pass-Through	Awards	-	2,490,728	-

SCHEDULE OF EXPENDITURES OF FEDERAL AWARDS

Assistance Lis Number	ting Federal Agency Sponsor	Pass-Through Sponsor	Additional Award Identification	Federal Expenditures	Expenditures to Subrecipients
Pass-through from other s Other Programs:	ources:				
Department of Homeland	d Security				
97.036	COVID-19 Federal Emergency Management Agency	Ohio Emergency Management Agency	FEMA-4507-DR	14,140,748	-
	Total Department of Homeland Security Pass-Through Award	ds		14,140,748	-
Agency for International	Development				
98.001	Agency for International Development	Universidad ISA	72051719CA00005	18,801	-
	Total Agency for International Development Pass-Through A	wards		18,801	-
Subtotal pass-through from other sources				\$ 37,981,956	\$ -
Total Federal Expenditures			\$ 1,152,430,039	\$ 72,573,623	

1. Summary of Significant Accounting Policies

Basis of Presentation

The accompanying schedule of expenditures of federal awards ("the schedule") includes the federal grant activity for the year ended June 30, 2022 for the following entities, which constitute the primary institution for financial reporting purposes:

- · The Ohio State University and its hospitals and clinics
- Ohio Agricultural Research and Development Center
- The Ohio Technology Consortium (OH-TECH)

In addition, the following university blended component units are included in the university's financial statements and schedule of expenditures of federal awards:

- The Ohio State University Foundation
- OSU Health Plan, Inc.
- Oval Limited
- Pelotonia

In addition to the blended component units above, the university's financial statements and schedule of expenditures of federal awards include the following discretely presented component units:

- The Ohio State University Physicians, Inc.
- Campus Partners for Community Urban Redevelopment, Inc.
- Transportation Research Center of Ohio, Inc.
- Dental Faculty Practice Association, Inc.
- Science and Technology Campus Corporation

The schedule has been prepared on the accrual basis in accordance with accounting principles generally accepted in the United States of America for state-assisted colleges and universities. Negative amounts represent current year adjustments of amounts reported in prior years. CFDA and pass-through entity numbers are included when available. The information in the schedule is presented in accordance with the requirements of Title 2 of the U.S. Code of Federal Regulations, Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Therefore, some amounts presented in this schedule may differ from amounts presented in, or used in the preparation of, the basic financial statements. Because the schedule presents only a selected portion of the operations of the university, it is not intended to and does not present the financial position, changes in net position, or cash flows of the university.

2. Reimbursement of Facilities and Administrative Costs and Uniform Guidance

On November 27, 2020, the U.S. Department of Health & Human Services (DHHS) established predetermined facilities and administrative cost recovery rates through June 30, 2024. The facilities and administrative cost rate structure, including the rates submitted within the certificate, is as follows:

	Negotiated Rate		
Rate Type	FY22	FY23 - FY24	
Organized Research			
On campus	57.5%	57.5%	
Off campus	26.0%	26.0%	
Instruction			
On campus	52.0%	52.0%	
Off campus	26.0%	26.0%	
Other Sponsored Activities			
On campus	32.0%	32.0%	
Off campus	26.0%	26.0%	

The university applies its predetermined approved facilities and administrative cost recovery rate when charging indirect costs to federal awards rather than the 10% de minimis cost rate as described in Section 200.414 of the Uniform Guidance.

3. Federal Direct Loan Program

Under the William D. Ford Federal Direct Loan Program, students and parents borrow funds directly from the federal government; the university is responsible for verifying student eligibility, electronically transmitting the loan records to the federal processor and distributing the loan funds directly to the student account or parent borrower. The amount of new loans to the university's students and parents during the fiscal year ended June 30, 2022 is shown in the schedule.

The university is responsible only for the performance of certain administrative duties with respect to the Federal Direct Loan Program and, accordingly, these loans are not included in the university's basic financial statements. It is not practical to determine the balance of loans outstanding under these programs at June 30, 2022.

4. University-Administered Loan Programs with Continuing Compliance Requirements

The federal loan programs listed below are administered directly by the university, and balances and transactions related to these programs are included in the university's financial statements. The amount of loans outstanding at the beginning of the fiscal year and loans made during the year are included in the federal expenditures presented in the schedule. The balances of loans outstanding as of June 30, 2022 are as follows:

	CFDA Number	Outstanding balance at June 30, 2022	
Department of Education			
Federal Perkins Program	84.038	\$	17,351,404
Department of Health and Human Services			
Health Professions Student Loan Program	93.342		
Dentistry			6,162,915
Optometry			1,806,977
Medicine			79,763
Pharmacy			719,591
Veterinary			3,906,758
Primary Care Loan Program	93.342		262.276
Medicine			263,276
Loans to Disadvantaged Student Program	93.342		
Dentistry			15,042
Medicine		_	2,906
			12,957,228
Nursing Student Loan Program	93.364		437,118
ARRA - Nursing Faculty Loan Program	93.408		2,931
Nursing Faculty Loan Program	93.264		1,140,008
Total Federal Loans Outstanding		\$	31,888,689

5. Department of Health and Human Services Provider Relief Funds

The University was the recipient of funding under CFDA # 93.498, Provider Relief Funds, and as required by the 2022 Compliance Supplement, period 2 amounts have been included on the Schedule of Expenditures of Federal Awards for the year ending June 30, 2022.

6. HRSA COVID-19 Testing and Treatment for the Uninsured

The University conducted COVID-19 testing and/or provided treatment for uninsured individuals with a COVID-19 primary diagnosis on or after February 4, 2020 and as such has requested claims reimbursement under CFDA #93.461 Health Resources and Services Administration's ("HRSA") COVID-19 Claims Reimbursement to Health Care Providers and Facilities for Testing, Treatment and Vaccine Administration for the Uninsured program. The University has recorded \$1,073,130 on the Schedule of Expenditures of Federal Awards for the year ending June 30, 2022.



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Independent Auditors' Report on Internal Control Over Financial Reporting and on Compliance and Other Matters Based on an Audit of Financial Statements Performed in Accordance With Government Auditing Standards

The Board of Trustees
The Ohio State University:

We have audited, in accordance with the auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States, the financial statements of the business-type activities and the aggregate discretely presented component units of The Ohio State University (the University) as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements, and have issued our report thereon dated November 17, 2022. Our report refers to the University's adoption of Governmental Accounting Standards Board (GASB) Statement No. 87, *Leases*, in 2022.

Report on Internal Control Over Financial Reporting

In planning and performing our audit of the financial statements, we considered the University's internal control over financial reporting (internal control) as a basis for designing audit procedures that are appropriate in the circumstances for the purpose of expressing our opinion on the financial statements, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control. Accordingly, we do not express an opinion on the effectiveness of the University's internal control.

A deficiency in internal control exists when the design or operation of a control does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, misstatements on a timely basis. A material weakness is a deficiency, or a combination of deficiencies, in internal control such that there is a reasonable possibility that a material misstatement of the entity's financial statements will not be prevented, or detected and corrected, on a timely basis. A significant deficiency is a deficiency, or a combination of deficiencies, in internal control that is less severe than a material weakness, yet important enough to merit attention by those charged with governance.

Our consideration of internal control was for the limited purpose described in the first paragraph of this section and was not designed to identify all deficiencies in internal control that might be material weaknesses or significant deficiencies and therefore, material weaknesses or significant deficiencies may exist that have not been identified. Given these limitations, during our audit we did not identify any deficiencies in internal control that we consider to be material weaknesses. We identified certain deficiencies in internal control, described in the accompanying schedule of financial statement findings as items 2022-001 and 2022-002, that we consider to be significant deficiencies.



Report on Compliance and Other Matters

As part of obtaining reasonable assurance about whether the University's financial statements are free from material misstatement, we performed tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements, noncompliance with which could have a direct and material effect on the financial statements. However, providing an opinion on compliance with those provisions was not an objective of our audit, and accordingly, we do not express such an opinion. The results of our tests disclosed no instances of noncompliance or other matters that are required to be reported under *Government Auditing Standards*.

The University's Responses to Findings

Government Auditing Standards requires the auditor to perform limited procedures on the University's responses to the findings identified in our audit and described in the accompanying schedule of financial statement findings. The University's responses were not subjected to the other auditing procedures applied in the audit of the financial statements and, accordingly, we express no opinion on the responses.

Purpose of This Report

The purpose of this report is solely to describe the scope of our testing of internal control and compliance and the results of that testing, and not to provide an opinion on the effectiveness of the entity's internal control or on compliance. This report is an integral part of an audit performed in accordance with *Government Auditing Standards* in considering the entity's internal control and compliance. Accordingly, this communication is not suitable for any other purpose.

KPMG LLP

Columbus, Ohio November 17, 2022

Schedule of Financial Statement Findings Year ended June 30, 2022

Finding 2022-001: Reconciliation and analysis of bank accounts

Criteria

Timely preparation and review of bank reconciliations is fundamental to preparation of financial statements in accordance with U.S. generally accepted accounting principles (GAAP).

Conditions Found

During our testing of the University's main operating account, we determined the account was not reconciled to properly identify and evaluate timing differences between the general ledger and bank balance as of June 30, 2022. As a result, we identified a misstatement to reduce cash and accrued expenses by \$45.5 million. After this misstatement was corrected by management, cash and cash equivalents reported by the University was \$303.1 million as of June 30, 2022. Upon reconciliation of the main operating account and other bank accounts, the University identified certain other reconciling items. Such amounts were determined by management to be immaterial and not recorded in the 2022 financial statements.

Cause

The University's central bank reconciliations lacked effective protocols for identifying certain reconciling items. Further, such reconciliations were not independently reviewed before preparing the University's financial statements.

Effect or potential effect

Failure to timely identify and properly account for reconciling items between bank balances and the general ledger may result in errors, affect the entity's ability to properly manage and project cash flows, and increase the risk of misappropriation.

Recommendation

The University should revise policies and procedures to ensure timely preparation and review of all bank reconciliations by individuals having appropriate knowledge, objectivity, and authority.

Views of University Officials

Reconciliation activity is prepared timely; however, limitations and challenges with Workday reporting have made it difficult to identify and evaluate certain general ledger transactions. Work continues to improve Workday reporting capability. Additionally, improvements to the bank reconciliation process have been made to further facilitate analysis and communication, ensuring any necessary accounting entries can be made monthly.

Schedule of Financial Statement Findings Year ended June 30, 2022

Finding 2022-002: Classification of certain components of net position

Criteria

GASB Codification 2200.117-125 requires entities to classify net position among net investment in capital assets, restricted amounts, and unrestricted amounts.

Conditions Found

The University's total net position was approximately \$9.3 billion as of June 30, 2022. During our testing of certain net position components, we noted that \$68.9 million of net investment in capital assets and \$92.2 million of certain internally designated funds classified within restricted expendable net position should have been classified as unrestricted net position. Management corrected these misstatements in the 2022 statement of financial position.

Cause

The University had not performed sufficiently detailed analyses of net position balances, including comparison to corresponding prior-year balances.

Effect or potential effect

Failure to properly account for and apply consistent policies to net investment in capital assets, expendable net position, and unrestricted net position could result in misclassifications within net position.

Recommendation

The University should centralize and strengthen policies and review controls to ensure appropriate evaluation and classification of the above net position components.

Views of University Officials

We will review and enhance our policies and processes for the evaluation of appropriate net position classification.



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Independent Auditors' Report on Compliance for Each Major Federal Program; Report on Internal Control Over Compliance; and Report on Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

To the Board of Trustees
The Ohio State University:

Report on Compliance for Each Major Federal Program

Opinion on Each Major Federal Program

We have audited The Ohio State University's (the University's) compliance with the types of compliance requirements identified as subject to audit in the OMB Compliance Supplement that could have a direct and material effect on each of the University's major federal programs for the year ended June 30, 2022. The University's major federal programs are identified in the summary of auditors' results section of the accompanying schedule of findings and questioned costs.

In our opinion, the University complied, in all material respects, with the compliance requirements referred to above that could have a direct and material effect on each of its major federal programs for the year ended June 30, 2022.

Basis for Opinion on Each Major Federal Program

We conducted our audit of compliance in accordance with auditing standards generally accepted in the United States of America (GAAS); the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States; and the audit requirements of Title 2 U.S. *Code of Federal Regulations* Part 200, *Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards* (Uniform Guidance). Our responsibilities under those standards and the Uniform Guidance are further described in the Auditors' Responsibilities for the Audit of Compliance section of our report.

We are required to be independent of the University and to meet our other ethical responsibilities, in accordance with relevant ethical requirements relating to our audit. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion on compliance for each major federal program. Our audit does not provide a legal determination of the University's compliance with the compliance requirements referred to above.

Responsibilities of Management for Compliance

Management is responsible for compliance with the requirements referred to above and for the design, implementation, and maintenance of effective internal control over compliance with the requirements of laws, statutes, regulations, rules and provisions of contracts or grant agreements applicable to the University's federal programs.

Auditors' Responsibilities for the Audit of Compliance

Our objectives are to obtain reasonable assurance about whether material noncompliance with the compliance requirements referred to above occurred, whether due to fraud or error, and express an opinion on the



University's compliance based on our audit. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS, *Government Auditing Standards*, and the Uniform Guidance will always detect material noncompliance when it exists. The risk of not detecting material noncompliance resulting from fraud is higher than for that resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Noncompliance with the compliance requirements referred to above is considered material if there is a substantial likelihood that, individually or in the aggregate, it would influence the judgment made by a reasonable user of the report on compliance about the University's compliance with the requirements of each major federal program as a whole.

In performing an audit in accordance with GAAS, Government Auditing Standards, and the Uniform Guidance, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material noncompliance, whether due to fraud or error, and design and
 perform audit procedures responsive to those risks. Such procedures include examining, on a test basis,
 evidence regarding the University's compliance with the compliance requirements referred to above and
 performing such other procedures as we considered necessary in the circumstances.
- Obtain an understanding of the University's internal control over compliance relevant to the audit in order to
 design audit procedures that are appropriate in the circumstances and to test and report on internal control
 over compliance in accordance with the Uniform Guidance, but not for the purpose of expressing an
 opinion on the effectiveness of the University's internal control over compliance. Accordingly, no such
 opinion is expressed.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and any significant deficiencies and material weaknesses in internal control over compliance that we identified during the audit.

Report on Internal Control Over Compliance

A deficiency in internal control over compliance exists when the design or operation of a control over compliance does not allow management or employees, in the normal course of performing their assigned functions, to prevent, or detect and correct, noncompliance with a type of compliance requirement of a federal program on a timely basis. A material weakness in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance, such that there is a reasonable possibility that material noncompliance with a type of compliance requirement of a federal program will not be prevented, or detected and corrected, on a timely basis. A significant deficiency in internal control over compliance is a deficiency, or a combination of deficiencies, in internal control over compliance with a type of compliance requirement of a federal program that is less severe than a material weakness in internal control over compliance, yet important enough to merit attention by those charged with governance.

Our consideration of internal control over compliance was for the limited purpose described in the Auditors' Responsibilities for the Audit of Compliance section above and was not designed to identify all deficiencies in internal control over compliance that might be material weaknesses or significant deficiencies in internal control over compliance. Given these limitations, during our audit we did not identify any deficiencies in internal control over compliance that we consider to be material weaknesses, as defined above. However, material weaknesses or significant deficiencies in internal control over compliance may exist that were not identified.

Our audit was not designed for the purpose of expressing an opinion on the effectiveness of internal control over compliance. Accordingly, no such opinion is expressed.



The purpose of this report on internal control over compliance is solely to describe the scope of our testing of internal control over compliance and the results of that testing based on the requirements of the Uniform Guidance. Accordingly, this report is not suitable for any other purpose.

Report on Supplementary Schedule of Expenditures of Federal Awards Required by the Uniform Guidance

We have audited the financial statements of the business-type activities and the aggregate discretely presented component units of the University as of and for the year ended June 30, 2022, and the related notes to the financial statements, which collectively comprise the University's basic financial statements. We issued our report thereon dated November 17, 2022, which contained unmodified opinions on those financial statements. Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the basic financial statements. The accompanying schedule of expenditures of federal awards is presented for purposes of additional analysis as required by the Uniform Guidance and is not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the basic financial statements. The information has been subjected to the auditing procedures applied in the audit of the basic financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the basic financial statements or to the basic financial statements themselves, and other additional procedures in accordance GAAS. In our opinion, the schedule of expenditures of federal awards is fairly stated in all material respects in relation to the basic financial statements as a whole.



March 30, 2023 Columbus, Ohio

(A Component Unit of the State of Ohio)
Schedule of Findings and Questioned Costs
Year ended June 30, 2022

Section I – Summary of Auditor's Results

(d)(1)(i)	Type of Financial Statement Opinions	Unmodified
(d)(1)(ii)	Were there any material weaknesses in internal control reported at the financial statement level (GAGAS)?	No
(d)(1)(ii)	Were there any significant deficiencies in internal control reported at the financial statement level (GAGAS)?	Yes
(d)(1)(iii)	Was there any reported material noncompliance at the financial statement level (GAGAS)?	No
(d)(1)(iv)	Were there any material weaknesses in internal control reported for major federal programs?	No
(d)(1)(iv)	Were there any significant deficiencies in internal control reported for major federal programs?	None reported
(d)(1)(v)	Type of Compliance Opinion for each major program	Unmodified
(d)(1)(vi)	Are there any reportable findings under 2 CFR § 200.516(a)?	No
(d)(1)(vii)	Major Programs (list):	Refer to the listing below
(d)(1)(viii)	Dollar Threshold: Type A\B Programs	Type A: > \$3,457,290 Type B: > \$864,323
(d)(1)(ix)	Low Risk Auditee under 2 CFR §200.520?	Yes

(A Component Unit of the State of Ohio)
Schedule of Findings and Questioned Costs
Year ended June 30, 2022

Major Programs (list):

#	Assistance Listing Number(s)	Name of Federal Program or Cluster
1	Various	Research and Development Cluster
2	Various	Student Financial Assistance Cluster
3	Various	Medicaid Cluster
4	84.425E, 84.425F, 84.425C, 84.425M, 84.425	Education Stabilization Fund
5	59.075	Shuttered Venue Operators Grant Program
6	93.498	Provider Relief Fund
7	93.318	Protecting and Improving Health Globally

212 (Continued)

(A Component Unit of the State of Ohio)
Schedule of Findings and Questioned Costs
Year ended June 30, 2022

Section II - Financial Statement Findings

Finding 2022-001: Reconciliation and analysis of bank accounts

Criteria

Timely preparation and review of bank reconciliations is fundamental to preparation of financial statements in accordance with U.S. generally accepted accounting principles (GAAP).

Conditions Found

During our testing of the University's main operating account, we determined the account was not reconciled to properly identify and evaluate timing differences between the general ledger and bank balance as of June 30, 2022. As a result, we identified a misstatement to reduce cash and accrued expenses by \$45.5 million. After this misstatement was corrected by management, cash and cash equivalents reported by the University was \$303.1 million as of June 30, 2022. Upon reconciliation of the main operating account and other bank accounts, the University identified certain other reconciling items. Such amounts were determined by management to be immaterial and not recorded in the 2022 financial statements.

Cause

The University s central bank reconciliations lacked effective protocols for identifying certain reconciling items. Further, such reconciliations were not independently reviewed before preparing the University s financial statements.

Effect or potential effect

Failure to timely identify and properly account for reconciling items between bank balances and the general ledger may result in errors, affect the entity s ability to properly manage and project cash flows, and increase the risk of misappropriation.

Recommendation

The University should revise policies and procedures to ensure timely preparation and review of all bank reconciliations by individuals having appropriate knowledge, objectivity, and authority.

Views of University Officials

Reconciliation activity is prepared timely; however, limitations and challenges with Workday reporting have made it difficult to identify and evaluate certain general ledger transactions. Work continues to improve Workday reporting capability. Additionally, improvements to the bank reconciliation process have been made to further facilitate analysis and communication, ensuring any necessary accounting entries can be made monthly.

213 (Continued)

(A Component Unit of the State of Ohio)
Schedule of Findings and Questioned Costs
Year ended June 30, 2022

Finding 2022-002: Classification of certain components of net position

Criteria

GASB Codification 2200.117-125 requires entities to classify net position among net investment in capital assets, restricted amounts, and unrestricted amounts.

Conditions Found

The University s total net position was approximately \$9.3 billion as of June 30, 2022. During our testing of certain net position components, we noted that \$68.9 million of net investment in capital assets and

\$92.2 million of certain internally designated funds classified within restricted expendable net position should have been classified as unrestricted net position. Management corrected these misstatements in the 2022 statement of financial position.

Cause

The University had not performed sufficiently detailed analyses of net position balances, including comparison to corresponding prior-year balances.

Effect or potential effect

Failure to properly account for and apply consistent policies to net investment in capital assets, expendable net position, and unrestricted net position could result in misclassifications within net position.

Recommendation

The University should centralize and strengthen policies and review controls to ensure appropriate evaluation and classification of the above net position components.

Views of University Officials

We will review and enhance our policies and processes for the evaluation of appropriate net position classification.

(A Component Unit of the State of Ohio)
Schedule of Findings and Questioned Costs
Year ended June 30, 2022

Section III – Federal Award Findings and Questioned Costs

None.



Office of Business and Finance

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E-mail: Papadakis.6@osu.edu

Corrective Action Plan

Reference Number: 2022-001: Reconciliation and analysis of bank accounts

Contact Person: Thomas Ewing, Director of Financial Reporting (ewing.6@osu.edu)

Anticipated Completion: 06/30/2023

Fiscal year in which finding occurred: 2022

Auditors' Recommendation: The university should revise policies and procedures to ensure timely

preparation and review of all bank reconciliations by individuals

having appropriate knowledge, objectivity, and authority.

Management View: University management concurs with the finding and related

recommendation.

Corrective Action: The university has developed additional procedures to ensure bank

reconciliations are prepared and reviewed timely by the appropriate

individuals.

Thomas Ewing	3/27/2023
V	Date

Reference Number: 2022-002: Classification of certain components of net position **Contact Person:** Thomas Ewing, Director of Financial Reporting (ewing.6@osu.edu)

Anticipated Completion: 06/30/2023

Fiscal year in which finding occurred: 2022

Auditors' Recommendation: The university should centralize and strengthen policies and review

controls to ensure appropriate evaluation and classification of the

above net position components.

Management View: University management concurs with the finding and related

recommendation.

Corrective Action: The university has established additional procedures to review the

classification of net asset components.

Thomas Ewing	3/27/2023
	Date





FRANKLIN COUNTY

AUDITOR OF STATE OF OHIO CERTIFICATION

This is a true and correct copy of the report, which is required to be filed pursuant to Section 117.26, Revised Code, and which is filed in the Office of the Ohio Auditor of State in Columbus, Ohio.



Certified for Release 5/23/2023

88 East Broad Street, Columbus, Ohio 43215 Phone: 614-466-4514 or 800-282-0370