

OHIO AUDITOR OF STATE
KEITH FABER



Ohio Department
of Public Safety

Performance Audit

June 29, 2021

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To the Governor's Office, General Assembly, Director and Staff of the Ohio Department of Public Safety, Ohio Taxpayers, and Interested Citizens:

The Auditor of State's Office recently completed a performance audit for the the Ohio Department of Public Safety (ODPS or the Department). This service to ODPS and to the taxpayers of the state of Ohio is being provided pursuant to the Ohio Revised Code §117.46.

This performance audit report contains recommendations, supported by detailed analysis, to enhance the Department's overall economy, efficiency, and/or effectiveness. This report has been provided to the Department and its contents have been discussed with the appropriate staff and leadership within ODPS. The Department is reminded of its responsibilities for public comment, implementation, and reporting related to this performance audit per the requirements outlined under §117.461 and §117.462. In future compliance audits, the Auditor of State will monitor implementation of the recommendations contained in this report, pursuant to the statutory requirements.

It is my hope that ODPS will use the results of the performance audit as a resource for improving operational efficiency as well as service delivery effectiveness. The analysis contained within are intended to provide management with information, and in some cases, a range of options to consider while making decisions about their operations.

This performance audit report can be accessed online through the Auditor of State's website at <http://www.ohioauditor.gov> and choosing the "Search" option.

Sincerely,

A handwritten signature in black ink that reads "Keith Faber".

Keith Faber
Auditor of State
Columbus, Ohio

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Ohio Department of Public Safety

Performance Audit Summary

WHAT WE LOOKED AT

The Ohio Department of Public Safety (ODPS) is the third largest state agency with almost 4,000 employees in its six divisions. These divisions function independently to carry out missions related to serving and protecting Ohioans. This audit reviews selected aspects of the Department's operations to ensure efficient, effective, and transparent operations. The areas chosen for review are as follows:

- **Department Staffing**, focusing on support staff in human resources, general services, fiscal services, and administrative assistants.
- **Bureau of Motor Vehicles**, centering on an examination of efficiency and opportunities to increase revenues while minimizing fee increases to Ohioans.
- **Information Technology**, emphasizing the efficient and effective use of technology, as well as appropriate governance and oversight.
- **Fleet**, ensuring appropriate policies and procedures centering on efficiency and effectiveness, as ODPS and the State Highway Patrol (OSHP) maintain a larger fleet than many other agencies.

WHAT WE FOUND

Overview: ODPS had a budget appropriation of approximately \$800 million in FY 2020, the bulk of which was generated from taxes, fees and fines paid by Ohioans.

Staffing: ODPS employs duplicative positions in several areas. During the course of the audit, staffing was reduced by 160 employees with an associated cost savings exceeding our estimate of \$12 million, though Department leadership plans to rehire several positions in the upcoming fiscal year. Additional opportunities exist to reduce staffing and more effectively oversee agency employees. Further, the approximately 1,600 sworn officers of the OSHP comprise more than 40 percent of ODPS staff and may be staffed at a level higher than similar sized states.

Bureau of Motor Vehicles (BMV): This division provides titling and licensing services to Ohioans and generates nearly \$1 billion in annual revenues to support ODPS and other entities. BMV provides services through a combination of on-line, mail, and telephone options, as well as in-person services provided by its privately operated network of Deputy Registrar offices. This model is more efficient than ODPS providing all services directly, but opportunities for increased efficiency still exist. These opportunities appear in the Department's selection of options by which Ohioans can interact with BMV and in its tracking of revenues.

Information Technology (IT): ODPS IT is appropriately staffed based on peer averages and industry standards, but it uses a significant number of consultants in roles that may be better suited for permanent employees. Further, the deployment of new devices is not done in an efficient manner, leading to costly reductions in employee productivity. Finally, the Department did not strictly adhere to internal IT Project Governance procedures which could result in costly delays in project development and deployment, though it restarted its governance process in July 2020 as a

result of our feedback. ODPS IT had estimated spending of nearly \$100 million in FY 2021, or approximately 12.5 percent of the Department’s overall budget appropriation. We found that by replacing older technology with new equipment to increase employee productivity could improve worker effectiveness by the equivalent of \$2.9 million in employee time over the course of one year.

Fleet: ODPS maintains a fleet of more than 2,000 vehicles and equipment. The vast majority of the fleet is State Highway Patrol vehicles. The Department is one of a few self-managed fleets within state government, and is required to adhere to specific regulations in order to maintain this status. We found that there were several opportunities for improved operations that would result in better adherence to regulations and significant cost savings for the Department. For example, the Department does not adhere to existing fleet management policies resulting in inefficient fleet management operations and costing the agency an addition \$1.2 to \$1.9 million in annual costs. Also, ODPS does not have a policy in place to assess the relative costs and benefits of allowing OSHP officers to take home vehicles, and therefore cannot determine the efficiency or effectiveness of this practice.

DEPARTMENT STAFFING

Recommendation 1.1: ODPS should reduce staffing by 147 full time equivalents¹ (FTEs) in specific functional areas throughout the Department. This reduction in staffing could result in approximately **\$12 million** in annual savings. While the Department has reduced staffing during this audit, it should be cautious as it rehires individuals in critical positions and seek to reduce staffing where efforts are duplicative or inefficient.

Issue for Further Study 1: The sworn officers of OSHP represent more than 40 percent of ODPS staffing. We were unable to obtain detailed information from peer states regarding staffing and activities of other state highway patrols in order to conduct a detailed analysis. However, we noted that OSHP employs more officers per highway mile and per resident than peer states. Based on the high level analysis, ODPS should conduct a further review of OSHP staffing to determine the appropriateness of the current staffing level and communicate the results of that review to the General Assembly during the biennial budgeting process.

BUREAU OF MOTOR VEHICLES

Recommendation 2.1: ODPS should advertise the benefits associated with the on-line and telephone services provided by Ohio BMV. Increasing the number of transactions conducted on-line or via telephone would reduce the incremental costs for operating these systems.

Recommendation 2.2: The Department should work with the General Assembly to lengthen the lifetime of products. By doing so, the number of transactions conducted by the BMV would decrease, while revenues would remain consistent – this would result in a net gain in income due to

¹ For purposes of this audit, a full-time equivalent was identified using a 2,080 hour work year.

the decrease in expenditures related to individual transactions. During the course of the audit, legislation was passed creating an eight-year driver's license for most vehicle types.

Recommendation 2.3: ODPS should work with the General Assembly to ensure the number of Deputy Registrar offices within each county is appropriate. Strategically reducing Deputy Registrar locations throughout the state may result in increased operational efficiency.

Issue for Further Study 2: There are fields within the Ohio Administrative Knowledge System (OAKS)² that are intended for enhanced coding of revenue data. We found that ODPS does not utilize some of these fields and instead uses Department specific systems for coding this information. Standard coding and formatting of revenue data is an important aspect of ensuring the transparency of how public funds are being utilized. Further analysis should be conducted to determine the optimal level of data collection within OAKS and to ensure effective accounting processes throughout all state agencies.

Information Technology

Recommendation 3.1: ODPS should follow its IT Project Governance procedures. The ODPS IT project governance process was created to enhance the strategic prioritization of projects. Following procedures and updating them to include budget estimation guidelines will help ODPS to make more informed decisions regarding current and future projects, and could lead to cost savings. Additionally, it may help the Department streamline its high number of ongoing projects.

Recommendation 3.2: The Department should work to transition longer-tenured consultants into regular employee positions. This will prevent the loss of institutional knowledge and reduce costs related to consultant fees. By doing so, the Department could save up to **\$1.1 million** in the first year of implementation.

Recommendation 3.3: ODPS should allow the use of flexible schedules by IT staff in order to reduce overtime expenditures. Because some scheduled work occurs outside of regular business hours, employees historically were paid overtime wages. By implementing flexible scheduling, the Department would save approximately **\$200,000** annually in reduced overtime expense. During the course of the audit, the Department began to implement this policy.

Recommendation 3.4: The Department should deploy computers that are currently in inventory and replace those units that are five years or older. By doing so, ODPS can increase employee efficiency and minimize employee downtime attributable to old technology. Currently, the lost productivity is approximately **\$2.9 million** in annual wages. Once the newer technology is deployed, the Department should institute a lifecycle replacement plan for IT inventory in order to prevent future productivity issues and decrease waste.

² OAKS is Ohio's enterprise resource planning (ERP) system which provides central administrative business services such as financial management, human capital management, and customer relationship management.

Recommendation 3.5: ODPS should implement audit and inventory procedures for software products to ensure it has the most up to date information on which software products are currently in use and for what purpose. In order to accurately track this information and make informed decisions related to software, ODPS should also track the usage of software products to determine which are truly necessary. Finally, costs pertaining to each software product should be tracked, as well as licensing and renewal periods.

Fleet Management

Recommendation 4.1: The Department should ensure that all expenses, including car washes, are captured in FleetOhio. ODPS should also enforce reconciliation policies and procedures and improve Voyager/FleetOhio reconciliation practices to rectify erroneous work order entries by using the ODPS Vehicle Job Report, which breaks down maintenance activities.

Recommendation 4.2: ODPS should right-size and consolidate pool fleet vehicles and also implement usage of the DAS Reservation Portal, or a similar system, for tracking daily utilization of pool fleet vehicles. Optimizing the number of pool vehicles would result in annual savings of **\$30,000** and generate **\$88,000** in one time revenue related to the salvage of excess vehicles.

Recommendation 4.3: Within OSHP, the existing policy of limiting the number of vehicles available to two vehicles for every three post troopers should be enforced. Eliminating vehicles in excess of this policy could result in annual savings of more than **\$730,000**.

Recommendation 4.4: ODPS should use a break-even calculation that takes into account the full costs associated with maintaining vehicles when determining the value of take-home vehicles among non-police staff. The Department should then right-size the existing fleet and eliminate vehicles where the cost of personal mileage reimbursement would be more efficient. Based on the current reimbursement rate of \$0.45 a mile, ODPS could save **\$18,000** annually.

Recommendation 4.5: ODPS should develop and implement fleet cycling policies in order to ensure the most efficient use of fleet. Maintaining vehicles beyond their useful life results in increased costs of ownership. Switching to an optimized fleet cycling process could save the Department between **\$431,000 and \$1.1 million** annually.

Issue for Further Study 3: ODPS should review the use of take-home vehicles by uniformed State Troopers. In order to complete this review, the Department should consider enhancing the collection of dispatch data to include the location of the first and last stop of the day for each uniformed officer with a take-home vehicle, as well as how frequently the officers respond to incidents outside of their shift. This data, once compiled, can be used to weigh the public safety benefit versus the cost of the policy to determine if it has a programmatic benefit for OSHP and Ohioans.

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Executive Summary

Background

It has long been a role of the government, both state and federal, to preserve public safety. Natural disasters, fires, car accidents, random acts of terror, and more are all realities that the public and the government have to contend with. The Ohio Department of Public Safety (ODPS or Department), a cabinet-level agency established through ORC § 121.02, is responsible for overseeing six divisions tasked with various missions of serving and protecting Ohioans:

- **Ohio Bureau of Motor Vehicles:** Oversees driver and motor vehicle licensing and registration, and strives to make services more convenient, efficient, and cost effective. The Bureau is responsible for keeping crash report records, driver training and licensing, title issuance, license suspensions and reinstatements, and investigations.
- **Ohio Emergency Management Agency:** Coordinates activities to mitigate, prepare for, respond to and recover from disasters, both natural and man-made.
- **Ohio Emergency Medical Services:** Oversees the certification of emergency medical technicians and firefighters and provides that these individuals in lifesaving roles are properly trained, educated, and prepared for emergency situations.
- **Office of Criminal Justice Services:** Serves agencies and communities committed to reducing and preventing crime across Ohio through its research, technology, grants administration and programmatic initiatives.
- **Ohio Homeland Security:** Leads Ohio's commitment to addressing the threats and challenges of terrorism.
- **Ohio State Highway Patrol (OSHP):** Provides statewide traffic and emergency response services, investigations of criminal activities on state-owned and leased property throughout Ohio, and security of the Governor and other dignitaries.

The divisions operate independently of one another and serve different needs. ODPS is overseen by a Director, Assistant Director, Director of Administration, and Director of Law Enforcement Initiatives. The Department's overarching mission is to save lives, reduce injuries and economic loss, administer Ohio's motor vehicle laws and preserve the safety and well-being of all citizens.



NOTE TO REPORT USERS:

This performance audit was conducted during a state of emergency due to the COVID-19 pandemic. The focus time-period for establishing current agency conditions was FY 2019-20. However, as necessary and appropriate, that information was closely informed by the immediate three preceding fiscal years of operational data, as well as any planned, verifiable changes for FY 2020-21 and FY 2021-22. The report does not account for the changes that have occurred and will occur from the unanticipated disruption caused by the pandemic.

Department Finances

The State of Ohio's finances are represented through several budgets³ that are created on a biennial basis. The primary budget is called the Main Operating Budget, which provides allocations for most state operations. The Transportation Budget allocates funds that are collected specifically for highway purposes. The funds allocated through the Transportation Budget are meant to ensure the safety and security of Ohio's roadways.

The Department collects more than \$1 billion in revenue through fees for services, taxes, fines, and penalties. Between 40 and 45 percent of these funds are allocated to ODPS through the biennial Transportation Budget with the remaining revenues disbursed to other entities based on a variety of state and local laws. The majority of revenue is collected by the Ohio Bureau of Motor Vehicles; **Section 2: Bureau of Motor Vehicles** provides details on how the majority of revenues are distributed.

Historically, large portions of the Department have been funded through non General Fund revenues. In 2004, the General Assembly decided to reallocate gas tax funding, which previously funded OSHP, to the Department of Transportation. In order to replace this revenue, the fees for driver's licenses and vehicle titles and registrations were increased with the increase in revenue going to fund OSHP. These fees, charged by Ohio BMV, have not changed since that time. In the interim, Ohio's population has not grown significantly and neither have the number of driver's licenses, registrations, and titles. This has resulted revenues that are relatively flat. However, OSHP operational costs, driven largely by personnel expenses, have increased, resulting in ODPS requiring additional funding through the General Revenue Fund in order to maintain regular operations beginning in FY 2018.

Why We Performed this Audit

The Ohio Auditor of State's Ohio Performance Team (OPT) is required, by Ohio Revised Code (ORC) § 117.46, to complete four performance audits⁴ of state agencies or institutions of higher education during each biennium. The Department was chosen for an audit at the request of ODPS leadership.

This is the first performance audit conducted by OPT of ODPS; and, in collaboration with the Department, OPT identified four areas for review. These scope areas, and associated objectives, were selected and developed to maximize the overall benefit to the Department and to Ohio's citizens:

- **Staffing/Span of Control**
 - Staffing by division and function;
 - Span of control;
 - Use of contractors, particularly in IT functions; and

³ Operating Budget, Transportation Budget and Capital Budget.

⁴ Performance Audits are conducted in compliance with Generally Accepted Government Auditing Standards, see Appendix A.

- Centralized and decentralized support and back-office positions
- **Bureau of Motor Vehicles**
 - Current operating model and options based on models used in other states or changes to current model based on business practices;
 - Cost and benefit of automated systems related to renewals; and
 - Options to decrease expenditures or increase revenues, which included a review of fees and operations
- **IT/Lifecycle and Inventory**
 - IT project governance throughout the project lifecycle, including a review of the process of project development and approval;
 - IT replacement cycles and inventory management; and
 - Software licensing and license management
- **Fleet**
 - Fleet utilization;
 - Vehicle assignments;
 - Fleet lifecycle;
 - Vehicle pools and pooling practices; and
 - Maintenance practices

The Department has a biennial budget of approximately \$1.6 billion and is the third largest state agency with nearly 4,000 employees. ODPS is supported through a variety of taxes, fees, and fines related to vehicle registration, driver's licenses, and moving violations as well as General Revenue Fund (GRF) appropriations and federal grants. The analyses we performed were designed to ensure the Department is maximizing efficiency and we identified several recommendations which will assist with improved operations.

What We Found

Within any organization, opportunities to increase efficiency exist. This is especially true in an organization as large and complex as ODPS. We found duplicative staffing, inefficient service models, and deficiencies in how the Department manages its internal fleet. Overall, our audit identified 14 recommendations that will assist ODPS leadership when making future decisions regarding the operations of the Department. We further identified three issues for further study that were not contained within the original scope of the audit but could provide further cost savings for ODPS.

Summary of Recommendations

- **Staffing:** ODPS employs duplicative positions in several areas. During the course of the audit, staffing was reduced by 160 employees with an associated cost savings exceeding our estimate of approximately \$12 million. However, Department leadership plans to rehire several positions in the upcoming fiscal year. Additional opportunities exist to reduce staffing and more effectively oversee agency employees. Further, the approximately 1,600 sworn officers of the OSHP comprise more than 40 percent of ODPS staff and may be staffed at a level above similarly sized states.

- **Recommendation 1.1:** ODPS should reduce staffing by 147 FTEs in specific functional areas throughout the Department. This reduction in staffing could result in approximately \$12 million in annual savings. While the Department has reduced staffing during this audit, it should be cautious as it rehires individuals in critical positions and seek to reduce staffing where efforts are duplicative or inefficient.
- **Issue for Further Study 1:** The sworn officers of OSHP represent more than 40 percent of ODPS staffing. We were unable to obtain detailed information from peer states regarding staffing and activities of other state highway patrols in order to conduct a detailed analysis. However, we noted that OSHP employs more officers per highway mile and per resident than peer states. Based on the high-level analysis, ODPS should conduct a further review of OSHP staffing and communicate the results of that review to the General Assembly during the biennial budgeting process.
- **Bureau of Motor Vehicles:** This division provides title and licensing services to Ohioans and generates nearly \$1 billion in annual revenues to support its and other divisions' operations. BMV provides services through a combination of online, mail, and telephone options, as well as in-person services provided by its privately operated network of Deputy Registrar offices. This hybrid model is more efficient than ODPS providing all services directly, but opportunities for increased efficiency still exist. These opportunities include the selection of methods for Ohioans to interact with BMV and in its tracking of revenues.
 - **Recommendation 2.1:** The cost per transaction to ODPS is lower when vehicle owners and operators purchase their services online or over the phone. ODPS should actively advertise the benefits and speed associated with their online and telephone vehicle services. By directing their clients to these alternatives, ODPS could maximize the revenue retained to support Department operations.
 - **Recommendation 2.2:** ODPS should consider working with the General Assembly to lengthen the lifetime of products. Longer lifetimes would allow ODPS to minimize costs, limit visits and reduce the number of transactions.
 - **Recommendation 2.3:** Deputy Registrar locations vary in the volume of transactions that they process per location, from 11,000 to 160,000. ODPS should work with the General Assembly to determine if strategic reductions to Deputy Registrar locations throughout the state is possible. By reducing the number of locations, the Department may be able to increase Ohio BMV's operational efficiency.
 - **Issue for Further Study 2:** There are fields within the Ohio Administrative Knowledge System (OAKS)⁵ that are intended for enhanced coding of revenue data. We found that ODPS does not utilize some of these fields and instead uses Department specific systems for coding this information. Standard coding and formatting of revenue data is an important aspect of ensuring the transparency of how public funds are being utilized. Further analysis should be conducted to

⁵ The Ohio Administrative Knowledge System (OAKS) is the State's Enterprise Resource Planning (ERP) system which provides central administrative business services.

determine the optimal level of data collection within OAKS and to ensure effective accounting processes throughout all state agencies.

- **Information Technology:** ODPS IT had estimated spending of nearly \$100 million in FY 2021, or approximately 12.5 percent of the Department's overall budget appropriation. ODPS IT is appropriately staffed based on peer averages and industry standards, but it uses a significant number of consultants in roles that may be better suited for permanent employees. Further, the deployment of new devices is not done in an efficient manner, which leads to costly reductions in employee productivity and results in the Department not utilizing purchased inventory in an efficient manner. Finally, the Department did not strictly adhere to internal IT Project Governance procedures which could result in costly delays in project development and deployment, though it restarted its governance process in July 2020 as a result of our feedback.
 - **Recommendation 3.1:** ODPS should follow its IT Project Governance procedures. The ODPS IT project governance process was created to enhance the strategic prioritization of projects. Following procedures and updating them to include budget estimation guidelines will help ODPS to make more informed decisions regarding current and future projects, which could lead to cost savings. Additionally, it may help the Department streamline the high number of ongoing projects.
 - **Recommendation 3.2:** The Department should work to transition longer-tenured consultants into regular employee positions. This will prevent the potential loss of institutional knowledge and reduce costs related to consultant fees while holding the direct employee costs neutral and maintaining the employees' compensation. By doing so, the Department could save up to \$1.1 million in the first year of implementation.
 - **Recommendation 3.3:** ODPS should allow the use of flexible schedules by IT staff in order to reduce overtime expenditures. Because some scheduled work occurs outside of regular business hours, employees historically were paid overtime wages. By implementing flexible scheduling, the Department would save approximately \$200,000 annually in reduced overtime expense. During the course of the audit, the Department began to implement this policy.
 - **Recommendation 3.4:** ODPS has inventory in storage that is not being used, leading to depreciation in value and efficiency. The Department should deploy computers that are currently in inventory and replace those units that are five years or older. By doing so, ODPS can increase employee efficiency and minimize employee downtime related to old technology. Currently, the lost productivity is approximately \$2.9 million in annual wages. Once the newer technology is deployed, the Department should institute a lifecycle replacement plan for IT inventory in order to prevent future productivity issues, decrease waste, and limit inventory and associated depreciation of new but unused equipment.
 - **Recommendation 3.5:** ODPS should implement audit and inventory procedures for software products to ensure it has the most up to date information on which software products are currently in use and for what purpose. In order to accurately track this information and make informed decisions related to software, ODPS

should track the use of software products to determine which are truly necessary. Costs pertaining to each software product should also be tracked, as well as licensing and renewal periods.

- **Fleet Management:** ODPS maintains a fleet of more than 2,000 vehicles and equipment. The vast majority of the fleet is State Highway Patrol vehicles. The Department is one of a few self-managed fleets within state government, and it is required to adhere to specific regulations in order to maintain this status. We found that there were several opportunities for improved operations that would result in better adherence to regulations and significant cost savings for the Department. For example, the Department does not adhere to existing fleet management policies resulting in inefficient fleet management operations leading to \$1.2 to \$1.9 million in excess annual expenditures. Also, it does not have a policy in place to assess the relative costs and benefits of allowing OSHP officers to take home vehicles, and therefore cannot determine the efficiency or economy of this practice.
 - **Recommendation 4.1:** FleetOhio⁶ records ODPS vehicle maintenance and repair transactions but includes transactions that have been improperly coded by vendors and is lacking data for car wash purchases. The Department should ensure that all expenses, including car washes, are captured in FleetOhio. ODPS should improve Voyager/FleetOhio reconciliation practices to rectify erroneous work order entries by using the ODPS Vehicle Job Report, which breaks down maintenance activities, and enforcing reconciliation policies and procedures.
 - **Recommendation 4.2:** ODPS does not have a pool fleet reservation system to track daily utilization of its pool vehicles. The Department is operating with excess vehicles spread out in separate pools, often at the same locations. ODPS should right-size and consolidate pool fleet vehicles. It should also use the DAS Reservation Portal, or a similar system, to track daily utilization of pool fleet vehicles. Optimizing the number of pool vehicles would result in annual savings of \$30,000 and one-time revenues of \$88,000 related to the salvaging of excess vehicles.
 - **Recommendation 4.3:** The Department is not uniformly adhering to the internal policy of maintaining two vehicles for every three post troopers. The existing OSHP policy should be enforced. Eliminating vehicles in excess of this policy could result in annual savings of more than \$730,000.
 - **Recommendation 4.4:** ODPS provides take-home vehicles for some civilian employees. The Department should use a break-even calculation that takes into account the full costs associated with maintaining non-law enforcement vehicles when determining the value of assigning take-home vehicles to civilian staff. The Department should then right-size the existing fleet and eliminate vehicles where the cost of personal mileage reimbursement would be more efficient. Based on the current reimbursement rate of \$0.45 per mile, ODPS could save \$18,000 annually.
 - **Recommendation 4.5:** ODPS does not have a policy in place to determine the optimal fleet cycling mileages of its police protector vehicles. The Department

⁶ FleetOhio refers to the FleetOhio Information Management System, and is a repository for fleet data used by state agencies in Ohio.

should develop and implement fleet cycling policies in order to ensure the most efficient use of fleet vehicles. Maintaining vehicles beyond their useful life results in increased costs of ownership. Switching to an optimized fleet cycling process could save the Department between \$431,000 and \$1.1 million annually.

- **Issue for Further Study 3:** ODPS should review the use of take-home vehicles by uniformed State Troopers. To complete this review, the Department should consider enhancing the collection of dispatch data to include notation of the location of the first and last stop of the day for each trooper with a take-home vehicle, as well as how frequently troopers respond to incidents outside their normal shift hours. This data, once compiled, can be used to conduct further analysis regarding the cost effectiveness of the policy.

Staffing

An organization's employees are generally one of the more costly aspects of doing business. Individuals who perform the core work of an organization's mission and goals, and individuals hired into support or management positions both require salaries, benefits, paid time off, training, and other forms of compensation. When an organization, such as a state agency, seeks to reduce expenditures, staffing is oftentimes an area where reductions can be made in order to address budgetary constraints.

Background

ODPS is Ohio's third largest state agency and has nearly 4,000 employees. Personnel costs represent approximately 66 percent of the Department's annual operating expenditures. As a result of a variety of factors, the Department maintains two human resources departments:

- **DPS Human Resources:** Responsible for general human resource functions, including payroll and benefits processing, for all ODPS employees. Also responsible for all other human resource functions, such as hiring and onboarding of all non-State Highway Patrol employees. As of June 30, 2020, there were 49 HR employees dedicated to all of ODPS' 3,884 FTEs.
- **State Highway Patrol Human Resources:** Responsible for officer hiring, training, grievances, complaints and other non-payroll aspects of human resources for State Highway Patrol employees. As of June 30, 2020, there were 18 HR employees dedicated to the 1,616 OSHP sworn officers that are a part of the 3,884 total FTEs⁷.

Including administrative employees, the State Highway Patrol comprises approximately 65 percent, or an estimated 2,531, of the Department's total FTEs. Because of this, ODPS utilizes a separate human resources department to address issues unique to OSHP, which appears to be an expedient choice. However, with two human resources departments, duplication of efforts may occur on common HR functions. In addition to the two human resources functions, other divisions within ODPS have a range of duplicative and overlapping support services. Therefore, this review was expanded to include multiple support functions within the Department, as well as positions that were supervisory in nature.

Both support staff and managerial staff have functions that are directly tied to the overall staffing levels within an agency. Governmental organizations should seek to maximize the work output for individuals in either type of function so that taxpayer dollars are well spent.

Why We Looked At This

Historically, ODPS has been largely self-funded through fees and fines related to the Department's core business functions. In addition to funding the Department's operations, a

⁷ AOS calculated FTE by dividing hours worked plus leave hours by 2080 hours. Those that worked more than 2080 hours were capped at 1.0 FTEs for the purpose of our analysis.

portion of these funds are distributed to local governments based on ORC regulations. In the last several years, ODPS has been provided additional funding from the State General Fund to cover the costs of Department operations. Because personnel costs are typically the largest portion of an agency’s annual budget, we reviewed staffing levels within ODPS in order to identify options that could reduce overall expenditures.

What We Looked At

We compared the administrative staffing for ODPS, which includes Human Resources, Fiscal, Administrative Support, and General Services. These categories are identified within the Ohio Administrative Knowledge System’s Business Intelligence (OAKS BI). Within each category of employee, we compared the Department’s staffing levels to those of identified peer agencies⁸ (e.g. large agencies) within Ohio. In order to adjust for differences in size, we analyzed the data on a per 100 FTE employee basis.

We also reviewed the number of managerial positions within the Department to determine if supervisors were being deployed efficiently based on industry standards. The Society for Human Resources Management (SHRM) identifies industry standards for how many employees should be supervised by a single manager at both the executive and middle-management levels. We used these standards and applied them to existing managerial roles within ODPS. This was done to determine if the Department had too many, too few, or the correct number of managers for various functions.

Lastly, we reviewed the staffing composition of the Ohio State Highway Patrol (OSHP). OSHP comprised 65 percent of total staff and accounted for 29 percent of total expenditures for ODPS in FY 2020. We compared total OSHP staffing levels to that of the peers on a per-resident and per state-owned center lane mile basis.

What We Found

Generally, the Department employs more support staff in Administrative Support and Human Resources compared to peer agencies. Additionally, ODPS has more managers than recommended based on industry benchmarks. Based on our analysis, we identified one recommendation and one issue for further study relating to the Department’s staffing:

- **Recommendation 1.1:** ODPS should reduce staffing by 147 FTEs in specific functional areas throughout the Department. This reduction in staffing could result in approximately **\$12 million** in annual savings. While the Department has reduced staffing during this audit, it should be cautious as it rehires individuals in critical positions and seek to reduce staffing where efforts are duplicative or inefficient.
- **Issue for Further Study 1:** OSHP represents 65 percent of ODPS staffing. We were unable to obtain information from peer states regarding staffing and activities for their

⁸ Peer agencies for our analysis included: Department of Mental Health and Addiction Services, Department of Developmental Disabilities, Department of Transportation, and Department of Jobs and Family Services.

state highway patrols in order to conduct a detailed analysis. We noted, however, that OSHP employs more officers per highway mile and per resident relative to peer states. Based on the high level analysis, ODPS should conduct a further review of OSHP staffing to determine the appropriateness the number of sworn officers and communicate the results of that review to the General Assembly during the biennial budgeting process.

Recommendation 1.1: Reduce the Number of FTEs

Based on peer analysis and industry standards, the Department could eliminate 147 positions within specific areas including human resources, general administrative support, and managerial roles.⁹

Impact

By reducing the number of staff in specific positions, the Department could save \$12 million annually based on the salary and benefits of the lowest tenured employee within each job function. Greater savings may be achieved if reductions in staff were obtained through the retirement of longer-tenured individuals.

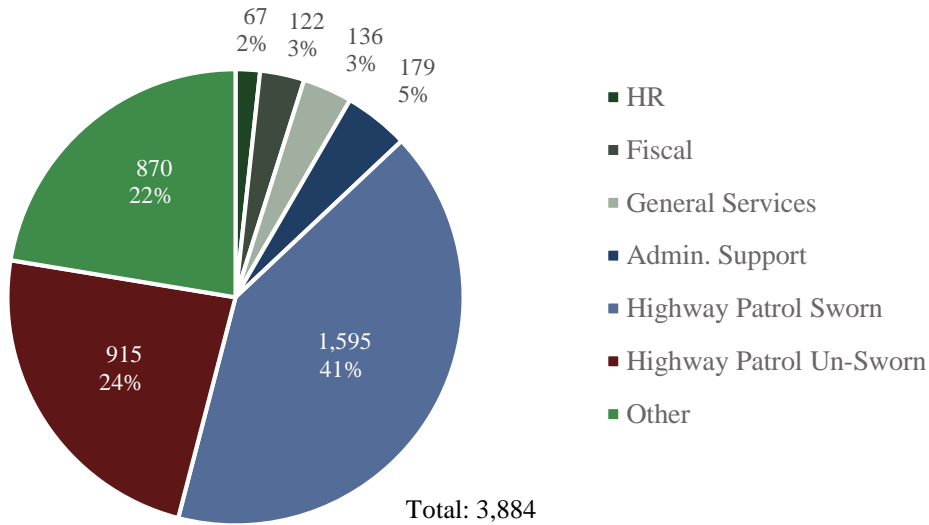
Background

The Department does not have a formalized staffing plan and does not use industry benchmarks to determine optimal staffing levels. While there are some staffing constraints, such as minimum manning requirements for State Highway Patrol or staffing ceilings instituted by the General Assembly, the majority of ODPS staffing decisions are made based on past practices.

As of June 30, 2020, ODPS had a total of 3,884 FTEs employed. The charts on the following page illustrate how staff is allocated across the agency by job title and department. The first chart displays how many employees are at ODPS by job title and the second chart displays ODPS staffing levels by the OAKS Department codes.

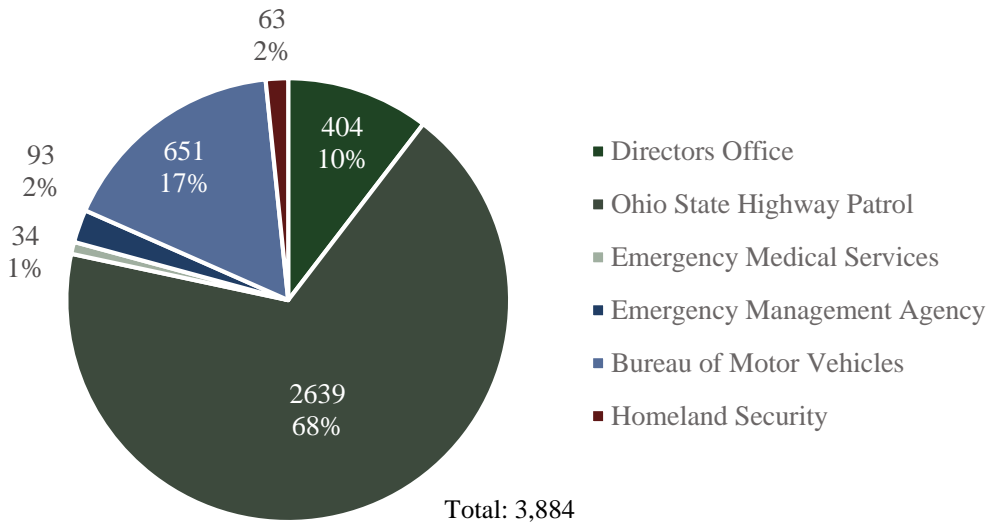
⁹ This recommendation is based on data available June 30, 2020. During the course of the audit, the Department has begun to reduce the number of employees. These and other positions should be removed from the Agency's table of organization and authorized staffing levels.

ODPS Staffing by Function Total FTE



Source: ODPS

ODPS Staffing by Operational Unit Total FTE



Source: ODPS

Strategic staffing decisions are important to ensure efficient and effective operations. Having too many FTEs can result in payroll expenses that are overly burdensome for an organization, and the additional employees may not result in additional efficiency or effectiveness. Organizations such as SHRM provide tools and guides related to human resources in order to assist entities in

the efficient and effective management of personnel. These types of metrics are valuable assets for agencies attempting to maximize efficiency while minimizing costs.

Methodology and Analysis

Our analysis of staffing within ODPS focused on support functions and span of control. These support and supervisory employees were chosen based on the impact they have on other employees within the Department. The workload of an administrative support professional or a manager is largely based on the number of individuals within the organization he or she must serve. Because of this, there are specific comparisons and metrics that can be used to identify optimal staffing levels in these areas.

Support Staff

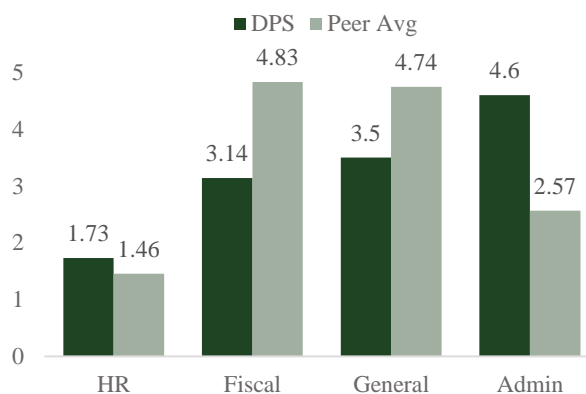
We used staffing data from OAKS BI to determine the number of support staff in four areas:

- **Human Resources:** Provides human resources services and information to state employees and helps state agencies conduct their personnel functions;
- **Fiscal:** Coordinates inventory and asset management, accounts payable and accounts receivable responsibilities in addition to procurement activity and operations related for all DAS divisions;
- **General Services:** Provides direct service to state agencies in areas from printing to real estate with a focus on creating efficiencies and adhering to statewide standards; and
- **Administrative Support:** Provides administrative, financial, legal, communications and human resources support to the DAS Director and state agency-facing business units of DAS.

These functional areas are defined by the Department of Administrative Services and are generally consistent across state agencies. In order to provide a baseline of comparison, we analyzed ODPS staffing in each of these areas compared to four peer agencies of similar size.¹⁰ In order to adjust for variation in staff size, we normalized the staffing data on a per 100 FTE basis. That is, we looked at how many support staff were employed for every 100 FTEs at each agency.

Based on our analysis in this area, as seen in the chart to the right, ODPS has more

Staffing FTEs per 100 Employees



Source: ODPS and Peers

¹⁰ Peer agencies used for purposes of this analysis were Ohio Department of Transportation, Ohio Department of Mental Health, Ohio Department of Developmental Disabilities and the Ohio Department of Job and Family Services.

Administrative Support and Human Resources staff than the peer agency average per 100 FTEs.¹¹

After identifying the difference in employee levels per 100 FTEs, we then calculated the number of total positions that should be reduced in order to be comparable to peer averages. Based on our analysis, the Department would need to reduce human resources and administrative support staffing by a total of 76 FTEs to be in line with the average of other large agencies within the State of Ohio.¹²

Span of Control

Individuals with management duties are responsible for overseeing and guiding the work of other employees. Ultimately, there are limitations as to how many individuals one manager can reasonably and effectively oversee. Conversely, too few direct reports risks wasting agency resources. SHRM has identified two levels of management and the associated optimal benchmark for supervision duties:

- **Executive Management:** One supervisor for every seven direct reports (1:7); and,
- **Middle Management:** One supervisor for every twelve direct reports (1:12).¹³

ODPS has employees with supervision duties in both executive management and middle management. We conducted a review with ODPS in order to identify, based on job title, what functions were considered in each category. With this information we created a recommendation based on a blended level of management types, taking into account the location and department in which those supervisors were overseeing employees. However, there are some supervisors in the same department and same location that are not overseeing employees at the blended level, and instead are supervising only one or a few employees. Based on the blended level of management using actual job functions, we identified a total of 76 managerial positions which could be eliminated using the SHRM benchmarks.

A full list of recommended reductions by job type can be found in **Appendix B**. This analysis and recommendation also takes into consideration staffing levels in managerial roles that do not conform to industry standards but cannot be eliminated due to staffing needs, such as when an individual manages a small team that cannot be combined. Those positions that would typically not conform to standards, but were deemed operationally necessary, were not included in our reduction recommendation.

Staffing Reductions

Our analysis relating to support staffing and managerial staffing was conducted independently, resulting in recommendations specific to each area. However, there are managerial positions within support staff functions. Because of this, we conducted an additional level of review with

¹¹ The Department had similar staffing within the Fiscal and General Services categories.

¹² Reduction includes 10 FTE in human resources and 66 FTE in administrative support.

¹³ <https://www.shrm.org/hr-today/trends-and-forecasting/research-and-surveys/Documents/2017-Human-Capital-Benchmarking.pdf>

ODPS in order to identify any individual positions that may have been counted twice. We identified 5 FTE positions that were duplicative, and as a result, our final recommendation in this area was a reduction of a total of 147 FTEs.

Staffing & Span of Control Reductions

	Executive Level Reductions	Blended Level Reductions	Executive Level Savings	Blended Level Savings
Total Related Reductions	120.00	152.00	\$9.2 M	\$12.6 M
Financial Savings Adjustments	0.00	5.00	\$0	\$0.3 M
Total Related Reductions Adjusted	120.00	147.00	\$9.2 M	\$12.3 M

Source: ODPS

As shown in the table, the recommendation would result in over \$12 million in annual cost savings based on reductions of the lowest-tenured employees within each position classification that had recommended reductions.

Conclusion

In recent years, ODPS has required a General Fund appropriation from the State in order to meet budgeted expenditures. Given the cost associated with personnel, it is important to ensure staffing is efficient and effective. At the time of this audit, the Department maintained a staff of nearly 4,000 FTEs at a cost of nearly \$400 million annually.

We found that the Department could reduce staffing in specific areas in order to be in line with peer averages or industry standards. Reducing staffing by 147 positions as we recommend would result in annual cost savings of approximately \$12 million for the Department.

During the course of our audit, the Office of Budget and Management (OBM) reduced the staffing ceiling for ODPS. This means that the number of staff that could be employed without additional approvals was lowered – from 4,092 in FY 2019 to 3,782 in FY 2020. Additionally, during the first half of FY 2020, the Department reduced the number of staff by 160 employees, primarily through retirements. Since the positions removed were higher paying positions than the entry level positions calculated in our analysis, the actual savings as a result of this 160 person

ODPS FTE Count

Some agencies have a limit on total employee count which is set by the Office of Budget and Management. The ceiling for ODPS was lowered in FY 2020, and the Department reduced staffing levels primarily through retirements. Below are the total number of FTEs compared to OBM limits and our recommended staffing total.

DPS FY 2020

3884 ACTUAL / **4092** OBM

November 2020

3724 ACTUAL / **3782** OBM

AOS Recommended FTEs

3737

reduction, with fringe benefits and agency overhead, is estimated at \$22 million. However, during meetings with ODPS, leadership indicated a need to rehire some of these positions after the hiring freeze was removed. As a result, ODPS should continue to find opportunities for reductions through attrition in other areas if technical positions do in fact need to be refilled.

Issue for Further Study 1: OSHP Staffing

OSHP represented approximately 65 percent of total FTEs and 29 percent of total expenditures for the Department in FY 2020. Because the division is so large, we reviewed the staffing levels in order to determine if the number of FTEs was appropriate for normal operations.

Because of limitations in available data, we were unable to fully analyze OSHP staffing. However, based on our preliminary findings, ODPS should study the OSHP staffing levels and operations to determine the optimal staffing numbers for efficient and effective normal operations. OSHP staffing practices were compared to that of Florida, Georgia, Missouri, and North Carolina, states that were considered to have similar populations, density, and highway patrol operations to Ohio. Highway miles were obtained from the Federal Highway Administration and population numbers from the U.S. Census Bureau to calculate highway patrol staffing numbers on a per mile and per resident basis.

The results of our analysis found that OSHP employs more officers per highway mile and more officers per resident relative to the peers. Specifically, OSHP employs one patrol officer for every 15 miles of highway compared to the peer average of every 29 miles of highway. As for residents, OSHP employs one patrol officer for every 8,971 residents compared to the peer average of 9,925.

OSHP Staffing and Metrics – Peer Comparison

	OSHP	Peer Avg.	Difference	% Difference
Staffing				
Sworn Road Trooper Positions	1,303.0	1,227.3	75.7	6.2%
Other Sworn Positions ¹	265.0	232.5	32.5	14.0%
Civilian Non-Commissioned Positions	822.0	583.9	238.1	40.8%
Total Staffing²	2,390.0	2,043.7	346.3	16.9%
Highway Miles & Population				
Total Center Lane Miles	19,249.0	35,974.8	(16,725.8)	(46.5%)
Total Residents	11,689,100.0	12,180,168.0	(491,068.0)	(4.0%)
Total Adjusted Residents	9,429,346.0	12,180,168.0	(2,750,822.0)	(22.6%)
Staffing Analysis				
Center Lane State Owned Miles per Road Trooper	14.8	29.3	(14.5)	(49.6%)
Residents per Road Trooper	8,970.9	9,924.8	(953.9)	(9.6%)
Adjusted Residents per Road Trooper	7,236.6	9,924.8	(2,688.2)	(27.1%)

Source: ODPS

Note 1: OSHP maintains special units of sworn law enforcement officers that are not road troopers, but are members of the State Highway Patrol, such as the K-9 Unit, Ohio Investigative Unit, Special Response Team, and Executive Protection Team.

Note: OSHP staffing as of October 2020.

Initial comparisons suggest that there may be opportunities for staffing efficiencies within OSHP. We recommend that ODPS pursue this analysis at its earliest convenience to ensure that OSHP is staffed appropriately based on peer state best practices and that its manpower targets are appropriate, efficient and effective. This would help ODPS better operate within its current budget and not require as much additional revenue for Department operations.

When conducting the internal staffing review, it will be important to consider the services offered by OSHP compared to peer states. We reached out to peers to determine what types of services are offered by both OSHP and peer states. This analysis provides a high-level overview of operations.

OSHP Services Provided – Peer Comparison

	OSHP	Peer Avg.
Highway Patrol	Yes	Yes
Crime Lab	Yes	No
Criminal Patrol	Yes	Yes
Investigative Services	Yes	No
Vehicle Theft Unit	Yes	No
Computer Crimes Unit	Yes	No
Polygraph Unit	Yes	No
Counter Terrorism Unit	Yes	No

Source: ODPS

As seen in the chart above, we found that OSHP provides a significant number of services that are not offered by the majority of chosen peer states. To ensure a fair comparison of OSHP to its peers, a full analysis would need to additionally take into account the following items:

- Differences in jurisdiction;
- Levels of service offered; and
- Level of aid provided to local departments.

Once this analysis is completed, ODPS will be able to make determinations on the appropriateness of OSHP staffing levels.

Bureau of Motor Vehicles

Registering and licensing motor vehicles and their operators provides numerous benefits to the community. Ownership of the vehicle can be clearly assigned, providing protections to public citizens; tests can be administered to ensure both the proper use of a vehicle and the vehicle's ability to safely navigate on public roads; and governments are able to collect fees which are used to ensure the safety and integrity of roadways. While not an extensive list, the regulation of motor vehicles and their operators helps ensure the safety of all citizens.

Background

The Ohio Bureau of Motor Vehicles (Ohio BMV) is a division within ODPS. The division is administered by the Registrar of Motor Vehicles, who is appointed by the Director of Public Safety.¹⁴ Along with other responsibilities, Ohio BMV is responsible for overseeing driver and motor vehicle licensing and registration. The primary functions of the division include:

- Examination and licensing of drivers;
- Registration of motor vehicles;
- Maintenance of driver and vehicle records;
- Enforcing blocks and suspensions;
- Issuance of motor vehicle dealer and salesperson licenses;
- Collection of motor vehicle registration and permissive taxes; and,
- Collection of International Registration Plan (IRP)¹⁵ revenue.

The majority of these services are offered primarily through a network of Deputy Registrars who may be the county auditor, clerk of court of common pleas, a nonprofit corporation, or an individual. While certain government officials may be designated as a Deputy Registrar, other government officers and all nonprofit corporations and individuals must undergo a competitive bidding process.¹⁶ At the time of this audit, there were 185 Deputy Registrars throughout the state. In addition to Deputy Registrars, Ohioans may obtain some services provided by Ohio BMV online, through the mail, or over the phone. The Ohio BMV processes millions of transactions annually, generating more than a billion dollars in revenue for state and local governments. These funds are primarily the result of individuals obtaining driver's licenses, registering vehicles, or obtaining certificates of title for vehicles. For vehicle registrations, which must be done on a regular basis, residents are charged the following fees:

- License Tax (set at \$20 for passenger cars in ORC);
- Highway Safety fee (set at \$11 for non-commercial vehicles in ORC);

¹⁴ Per ORC 4501.02

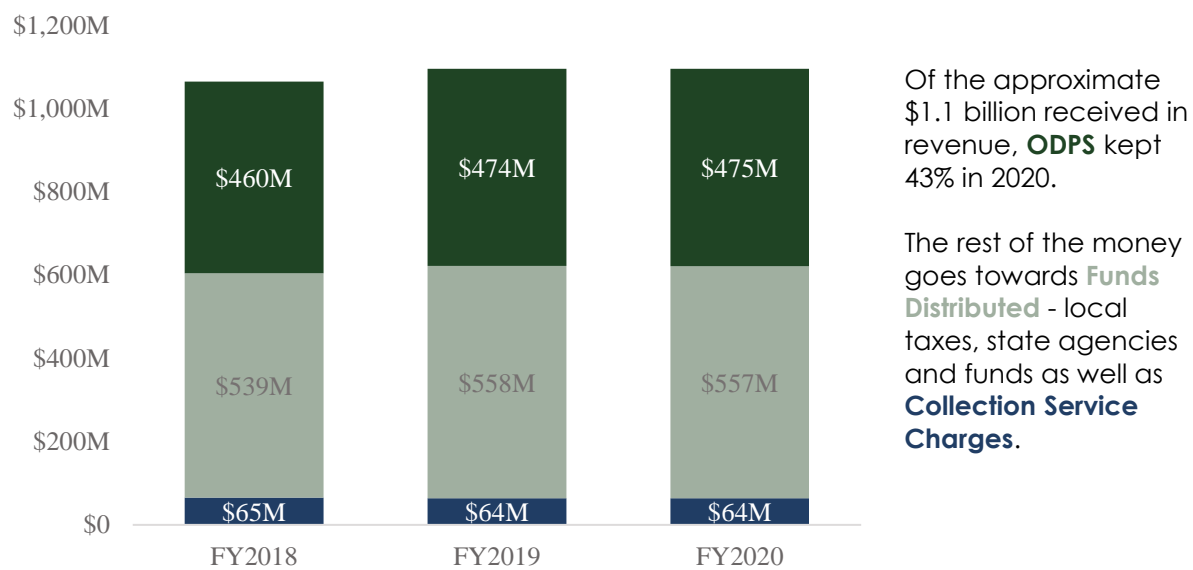
¹⁵ The International Registration Plan (IRP) is a registration reciprocity agreement between the contiguous United States and Canadian provinces, which provides apportioned payments of registration fees, based on the total distance operated in participating jurisdictions, to them. IRP's fundamental principle is to promote and encourage the fullest possible use of the highway system.

¹⁶ Per OAC 4501:1-6-02

- Service fee (set at \$5 in ORC); and
- Permissive Tax (variable based on county, municipality and township).

Applicable fees and fines associated with Ohio BMV are set by the General Assembly and may be updated through legislative changes or the biennial budget process. At the time of this audit, Ohio BMV fees had been static for more than 10 years. During the past three fiscal years, Ohio BMV collected revenues in excess of \$1 billion. More than half of the revenue generated is in the form of local taxes and is disbursed to subdivisions throughout the state.

Ohio BMV Revenue Distributions

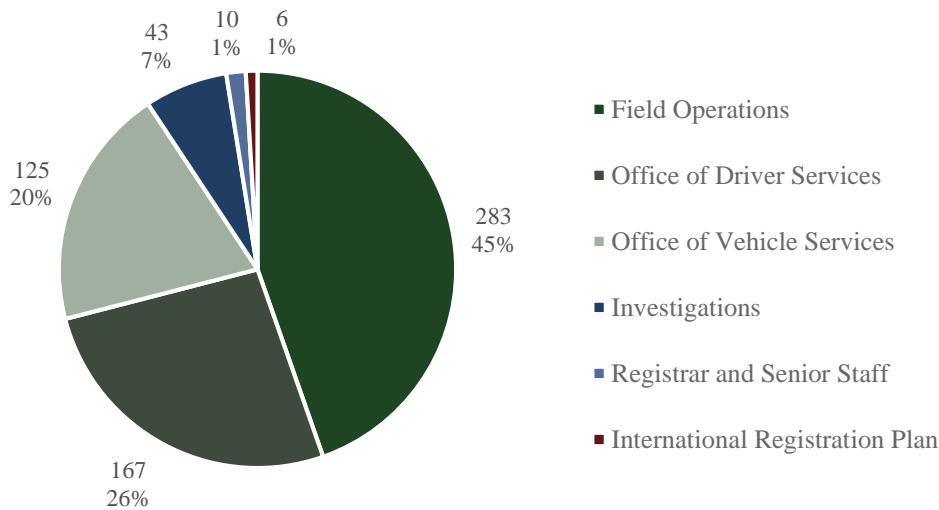


Source: ODPS

As seen in the chart above, ODPS retained between 43.2 and 45.2 percent of revenues generated by Ohio BMV. More than half of the revenue collected is distributed, with the majority going to counties and local taxing districts based on identified permissive tax rates. Ohio BMV also collects revenues associated with specialized license plates and donations which are distributed to the appropriate funds as needed. The revenue retained by ODPS covered the vast majority of the Department’s total annual operating budget in each of the three years – including funding for other divisions such as OSHP. Finally, approximately \$65 million in service fee revenues each year was retained by Deputy Registrars.

There are just over 600 FTEs directly employed by ODPS within Ohio BMV. These individuals, as seen in the chart on the following page, are assigned to a variety of functional areas and ensure compliance with laws and contractual agreements as well as providing oversight and support to the Deputy Registrars.

BMV Staffing & Organizational Structure



Source: ODPS

According to Ohio BMV, the key responsibilities of each group are as follows:

- **International Registration Plan (IRP):** Administers the agreement among states of the US, the District of Columbia, and provinces of Canada, which recognizes the registration of commercial motor vehicles registered by other jurisdictions. It provides for payment of apportioned licensing fees based on the total distance operated in all member jurisdictions.
- **Registrar and Senior Staff:** Oversees the productivity of the other five (5) sections, ensuring compliance with all laws, policies, and procedures required by the Ohio Revised Code and the Ohio Administrative Code.
- **Investigations:** Investigates driver license and identification fraud, title fraud, and registration fraud.
- **Office of Vehicle Services:** Processes vehicle registration renewals, applies payments for registration and reinstatement fees, issues special plates, supports the 88 Ohio County Clerks of Court with titling policies and procedures, regulates dealer licensing and assists titling issuance.
- **Office of Driver Services:** Provides services identified in ORC relating to the following areas: Driver License Suspensions, Telecommunications, Records Services, and Verification Services. Driver Services operates under the statutory authority of ORC §149, 2313, 4501, 4506, 4507, 4509, 4510, and 4511.
- **Field Operations:** Oversees the Deputy Registrar agencies, Driver Examination Stations, and Motorcycle Ohio program; provides support, training, auditing, and evaluation to ensure statewide compliance and uniformity.

Why We Looked At This

In 2004, the General Assembly decided to eliminate gas tax funding for OSHP and instead increased Ohio BMV fees to provide support for the division. Ohio BMV fees have not changed since that time. In the interim, Ohio's population has not grown significantly, resulting in revenues that are relatively flat. However, operational costs have increased during this same timeframe, resulting in ODPS requiring additional funding in order to maintain regular operations.

In 2021, as a part of initial budget planning, ODPS included a request for fees to be raised in order to generate more revenue. These increases in fees and taxes would be the first increase for each in more than a decade. ODPS indicated these three increases in total would create an additional \$137.3 million in annual revenue, which is an increase of approximately 16% compared to FY20 revenue and would be used to fund Department operations. The request was not included in the final budget bill and fees charged by ODPS will remain at the current levels.

We reviewed the operations of the BMV because it is the major revenue source for ODPS, generating the majority of the Department's total revenue. Due to the privatized model employed by BMV, we reviewed the operations of this division in order to ensure it was operating efficiently and effectively.

What We Looked At

OPT reviewed Ohio BMV's operational model, revenues and expenditures, product offerings, and data collection practices. In order to provide meaningful recommendations to the Departments, we compared Ohio BMV to peer states and identified best practices.

We further reviewed the cost effectiveness of contracting with third parties to provide Deputy Registrar services. This was done through an analysis to determine the cost of operating a similar number of service centers with state employees.

What We Found

We found that the operational model used by ODPS, which involves contracting with third parties for Deputy Registrar services, is more efficient and cost effective than operating service centers directly. We also found that, in key functional areas, the Department could improve operations, leading to a reduction in expenditures or an increase in revenue retention. Our analysis of this division within the Department yielded three recommendations and one issue for further study:

- **Recommendation 2.1:** The cost per transaction to ODPS is lower when vehicle owners and operators opt to purchase services directly through Ohio BMV online, through the mail, or over the phone. ODPS should actively advertise the benefits and speed associated with these options. By directing their clients to these alternatives, ODPS could reduce administrative expenditures and better support Department operations.

- **Recommendation 2.2:** ODPS should consider working with the General Assembly to lengthen the lifetime of products. The longer periods would allow ODPS to minimize costs, limit visits and reduce the number of transactions.
- **Recommendation 2.3:** Deputy Registrar locations vary in the volume of transactions that they process per location, from 11,000 to 160,000. ODPS should work with the General Assembly to right-size the number of Deputy Registrar locations per county. This would enable the Department to minimize expenditures associated with low volume locations.
- **Issue for Further Study 2:** The ability to clearly identify the types of revenues being generated by ODPS is difficult due to the lack of specificity in recording information in OAKS. There are fields within OAKS that are intended for the enhanced coding of revenue data. We found that ODPS does not utilize some of these fields and instead uses Department specific systems for coding this information. Standard coding and formatting of revenue data is an important aspect of ensuring the transparency of how public funds are being utilized. Further analysis should be conducted to determine the optimal level of data collection within OAKS and to ensure effective accounting processes throughout all state agencies.

Recommendation 2.1: Market Direct BMV Services

ODPS should actively advertise the benefits and speed associated with purchasing services directly from Ohio BMV online, through the mail, or over the phone.

Impact

Transactions that are initiated directly with Ohio BMV, either online, through the mail, or via the telephone result in lower costs for the Department. By promoting these services, ODPS would be able to retain a larger portion of the total revenue generated through fees for services and thereby decrease its reliance on General Fund subsidies. The total financial impact associated with this recommendation would be dependent on the Department's ability to successfully promote these services.¹⁷

Background

The usage of OPLATES¹⁸ and mail-in services have been increasing steadily for several years. Ohio BMV customers find them to be efficient, user-friendly, and simple. Customers seeking to avoid in person services can use OPLATES or mail back renewal applications, and can receive other Ohio BMV vehicle services from the comfort of their home.

The interactive voice response (IVR) system is used to conduct transactions over the phone. This system was discontinued in 2015, but reinstated in 2019. At the time of the audit, only one year of data was available related to the IVR system use.

Due to COVID-19, Governor Mike DeWine issued an executive order declaring a State of Emergency on March 9, 2020. Driver license and registration renewals were extended to remain valid until December 1, 2020. At the time, all but five Deputy Registrar and five driver examination stations closed on March 19, 2020. All 185 Deputy Registrars reopened on May 26, 2020, with leadership urging online service requests if possible. Driver's licenses, IDs, and vehicle registrations with expiration dates from March 9, 2020 to April 1, 2021 have been automatically extended and will remain valid until July 1, 2021.

Methodology and Analysis

In 2020, Ohio BMV processed more than 16 million transactions across all platforms. While the cost to the consumer is the same for a transaction no matter how it is processed, there is a variable cost incurred by the Department based on how the consumer chooses to conduct the transaction. For the four types of transactions available to the public, we reviewed the cost

¹⁷ While the identified cost for the phone based IVR system are higher than Deputy Registrar costs, these expenses are a fixed dollar amount and would decrease with each additional transaction.

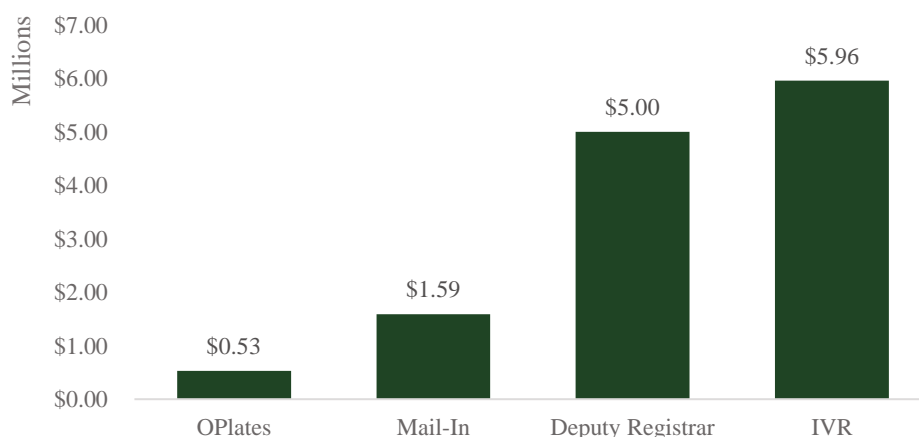
¹⁸ OPLATES is a platform which allows some BMV transactions to be completed online such as vehicle registration renewals.

associated with each transaction to ODPS in order to identify opportunities to increase the amount of revenue retained by the Department.

- **Deputy Registrars:** A set fee per transaction set by ORC. At the time of the audit, for most transactions, the Deputy Registrars retained \$5 of assessed fees.
- **OPLATES:** A set fee per transaction governed by a contract with the third-party vendor monitoring the program. At the time of the audit, for most transactions, this fee was \$0.53 (2.4 million transactions in 2020).
- **IVR:** A fixed cost to operate the system of \$198,500. With each transaction, the variable cost associated with the IVR system is reduced (33,000 transactions in 2020).
- **Mail:** A relatively fixed cost related to personnel necessary to process mail transactions. With each new registration received by mail, the variable cost per transaction is reduced. However, the number of transactions which can be processed by mail is limited by existing staff. While additional costs exist for the materials and mailings associated with these transactions, ODPS was not able to separate these costs at the time of the analysis. Further, because these mailings are notifying customers that action is needed, some form of US mail contact would likely exist with or without the collection of these transactions (1.9 million transactions in 2020).

In addition to the expenses listed above, the Department may incur additional costs associated with Ohio BMV operations, which are not specific to the platform used by consumers and are general in nature. These expenses were not included for purposes of this analysis. The chart below shows the cost per transaction for each transaction type. As shown in the chart, both OPLATES and transactions processed through the mail are considerably less expensive to ODPS than the Deputy Registrar or IVR system. However, in 2020, there were only 33,000 transactions processed through IVR. Because the cost per transaction is reduced with additional transactions for IVR, increased volume would help this method become more cost effective for the Department.

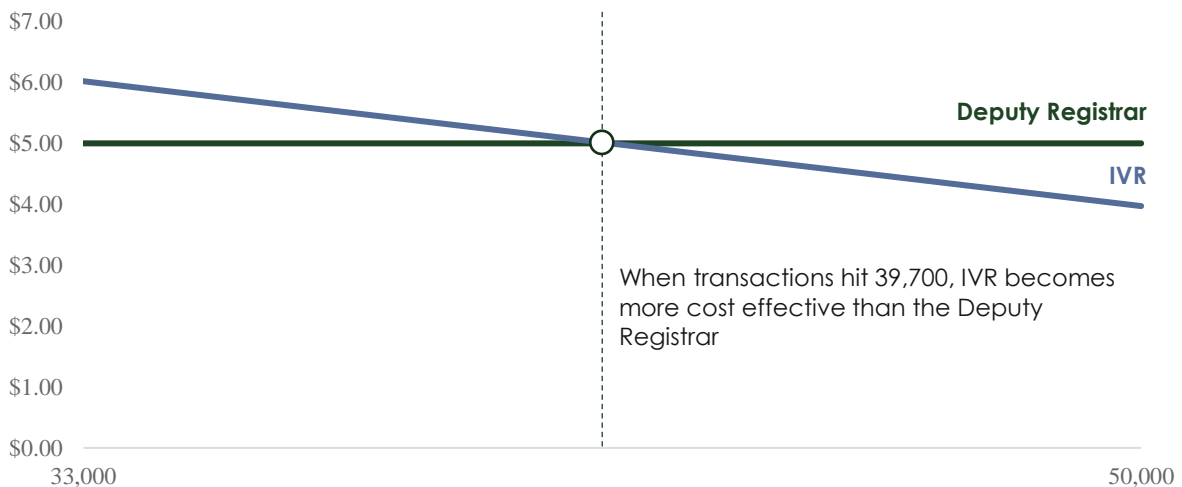
Cost per Transaction by Type - CY 2020



Source: ODPS

We reviewed cost and transaction data in order to determine how many additional transactions would be necessary to make IVR transactions more cost effective than the Deputy Registrars for ODPS. As illustrated in the following chart, the Department would need to process fewer than 6,500 additional IVR transactions in order to reach a breakeven point compared to the Deputy Registrar. Further, as the number of IVR transactions continues to increase, the amount of additional revenue retained by the Department increases. The space between the two lines to the right of the breakeven point on the chart reflect the potential increase in revenue per transaction.

IVR vs Deputy Registrar Break Even



Source: ODPS

Based on the experience of Deputy Register locations during the 2020 pandemic closures, there was general hesitancy to conduct business in person once they reopened. In-person transaction revenues increased 0.9 percent between FY 2018 and FY 2019, but decreased 12 percent between FY 2019 and FY 2020 due to the COVID-19 pandemic. During the same time, OPLATES and other remotely accessed services saw a 40.5 percent increase in transactions and 49.8 percent increase in revenue (\$165 million, 2.4 million transactions) compared to FY 2019.

Conclusion

When transactions are conducted directly with Ohio BMV, the Department collects the service fee charged to the consumer. Promoting these options could result in more available funding for core functions like the Highway Patrol. During the period of time the Ohio BMV and its affiliates were closed due to COVID-19, the public took advantage of alternatives to in-person service, resulting in an increase in revenue from mail-in services, online services, and the IVR system. ODPS should consider creating a strong marketing program to drive customer traffic to the OPLATES, IVR, and mail-in systems in order to potentially decrease the Department's reliance on the General Fund.

Recommendation 2.2: Lengthen Driver's License Product Duration

ODPS should consider working with the General Assembly on lengthening the lifetime of products to minimize service costs and lower the number of transactions while maintaining similar revenue.

Background

Ohio has historically offered driver's licenses which are valid for a four-year term and vehicle registrations, which could be valid for up to five years.¹⁹ There is a transactional cost associated with each renewal of a license or registration, particularly the fees which are retained by a Deputy Registrar and the reimbursements provided to the Deputy Registrars by Ohio BMV. Additionally, for the citizen, there is a cost in time and travel to renew, in person, every four years.

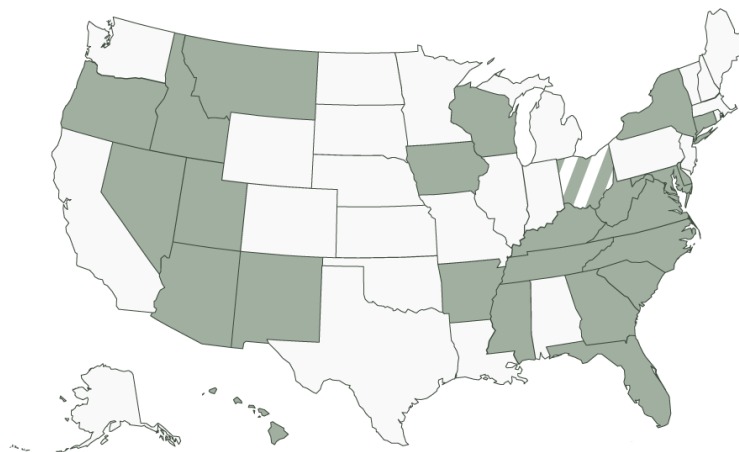
Methodology and Analysis

OPT gathered information regarding driver's license renewal options for all 50 U.S. states. We also examined license renewal options for Ohioans.

We found that there are 24 states that allow for an 8-year driver's license. These states are shown in dark gray on the map below. We also analyzed Senate Bill 68 to determine the proposed option for license renewal in Ohio. The legislative language states that driver's licenses, commercial licenses, motorcycle operator's endorsement, and motorized bicycle licenses shall expire on the fourth or eighth year after the date of issuance, based on the period of renewal requested by the applicant.

ODPS offers the option to extend a vehicle registration from two to five years. The Department charges fees that are proportional to the

States Offering 8-Year Driver's License Options



Source: The Insurance Information Institute

Note: During the course of the audit, as a part of Ohio's transportation budget, the General Assembly authorized an eight-year driver's license.

¹⁹ ORC § 4503.103

duration of the registration. For example, in 2020, a two-year registration was approximately double that of a one-year registration. We found that several states that offer the option of an extended length driver's license do so using a similar fee structure, including: Idaho, Mississippi, New Mexico, and Vermont.

During the course of the audit, the final transportation budget bill (SB68 of the 134th General Assembly) included a provision for eight-year driver's licenses. Promoting this option may reduce ODPS' and Deputy Registrar transactional cost while maintaining a similar level of revenue.²⁰

Conclusion

Extending the product lifecycle of driver's licenses would allow for ODPS and Deputy Registrars to reduce expenditures through lower administrative and labor costs. The Department should monitor the impact of this new policy and make future process improvements.

²⁰ Under ORC § 4507.09, four year driver's licenses would cost \$27.25 while eight year driver's licenses would cost \$53.50. Eight year driver's licenses would cost approximately double that of the four year option.

Recommendation 2.3: Right-size and Redistribute Deputy Registrar Locations

ODPS should work with the General Assembly to ensure the number of Deputy Registrar offices within each county is appropriate.

Impact

During our analysis, we determined that some of the Deputy Registrar locations could be consolidated based on a variety of factors including the number of transactions processed on an annual basis. The strategic reduction of Deputy Registrar locations could result in improved operational efficiency for Ohio BMV.

Background

Ohio contracts out vehicle service responsibilities to Deputy Registrars, with each operating under the direction and requirements of ODPS. In 31 of Ohio's 88 counties, there is more than one Deputy Registrar location. Cuyahoga, Franklin, and Hamilton counties have the most with 14, 13, and 12 locations respectively. ODPS is required to have at least one Deputy Registrar per county;²¹ however, additional locations within a single county are at the discretion of the Department.

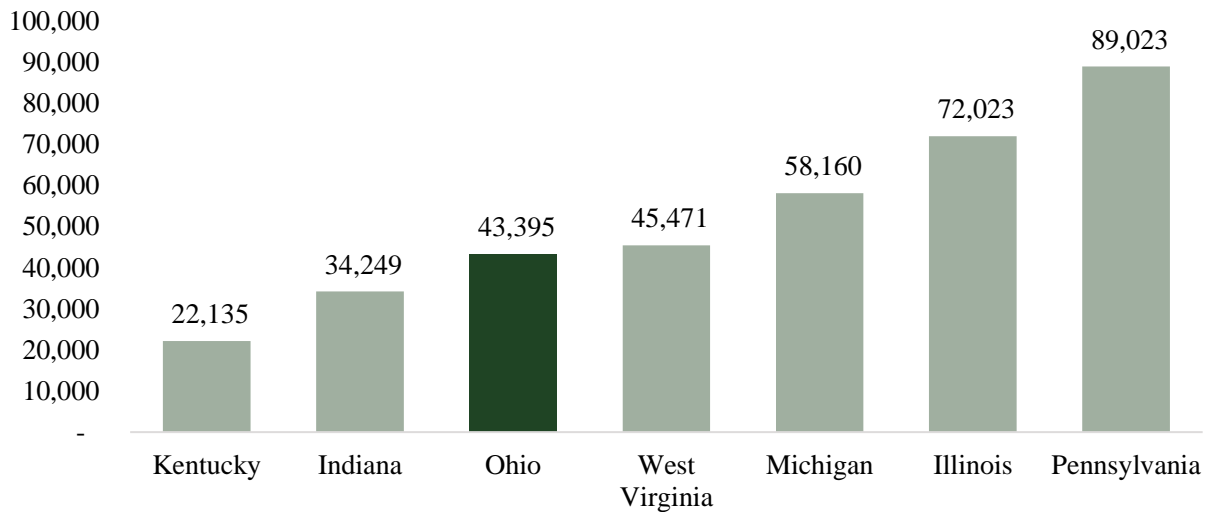
Methodology and Analysis

We obtained the number of Deputy Registrar locations from ODPS and identified several peer states in order to conduct a comparative analysis. Our review, as seen in the chart on the following page, shows that Ohio has fewer licensed drivers per service center compared to four of the six peers used for analysis. This means that, based on peer comparisons²², Ohio BMV may have an opportunity to reduce the number of vehicle service centers.

²¹ ORC § 4503.03.

²² Vehicle Service Center Data was collected from August to December of 2020. Licensed drivers were as reported in February 2020 for CY2018, the most recent data at the time of the analysis.

Licensed Drivers per Vehicle Service Centers



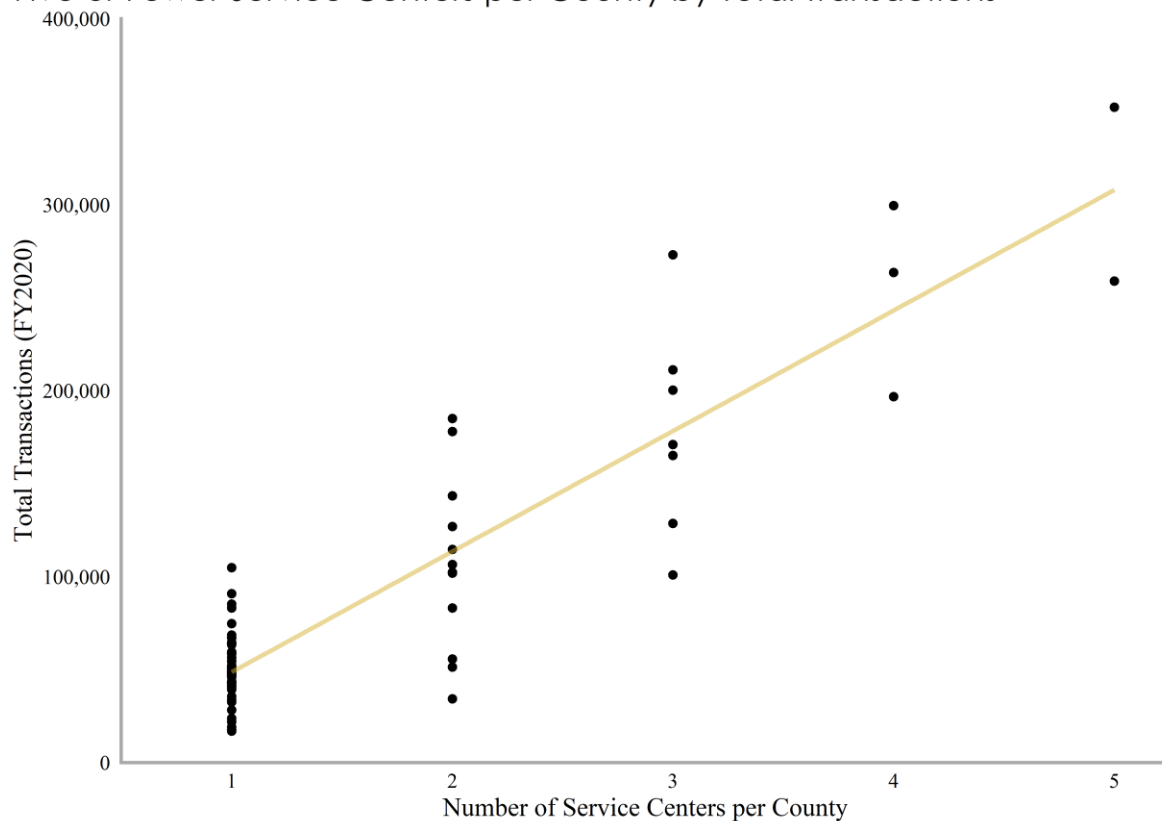
Source: Surrounding States and Demographic Data

In 57 of Ohio’s 88 counties there is only one Deputy Registrar location. Within these counties, the median number of transactions processed is 48,229. Miami County, with a population of 105,371 processed 104,786 transactions, which was the most for a county with only one Deputy Registrar. Noble County, with a population of 14,416, processed 16,973 transactions, which was the fewest for a county with only one Deputy Registrar. The variation in number of transactions processed by counties with a single Deputy Registrar location indicates that it is possible to scale operations in order to meet a greater level of demand.

We charted the number of Deputy Registrar locations compared to the number of total transactions processed within each county. While the variation in transaction totals can be attributed to a variety of factors, including local demand, opportunities for consolidation exist for some counties with more than one Deputy Registrar location. Counties with new locations during FY2020 were excluded due to incomplete data.

The chart on the following page shows the total number of Deputy Registrar locations per county compared to the county’s respective number of transactions, and the results of our regression analysis. The regression line in yellow estimates the relationship between one variable and another. It acts as a model to measure the expected number of total transactions with the number of service centers for that county. The purpose of this analysis was to identify opportunities for improved efficiency in counties with multiple Deputy Registrar locations. Counties with more than 5 service centers within the county were excluded from this visual for scaling purposes, however the full chart can be viewed in **Appendix B**.

Five or Fewer Service Centers per County by Total Transactions



Source: ODPS

While reducing the number of Deputy Registrar locations would not reduce the Department’s expenditures, those counties which have multiple locations that are processing minimal transactions should be analyzed. A variety of factors may impact the appropriateness of Deputy Registrar locations within an area including population changes, updated service offerings, and access to alternative service platforms. As the needs of a county shift, ODPS should be strategic in the number and placement of Deputy Registrar locations to ensure operational efficiency throughout the state.

Conclusion

ODPS should review the number of Deputy Registrars in counties where there is more than one designee. In doing so, the Department should consider if consolidation of locations is possible without adversely affecting the quality and level of service provided to Ohio residents. While ORC requires one Deputy Registrar per county, additional locations are at the discretion of the Director of ODPS.

Issue for Further Study 2: Update and Refine Accounting Codes

The ability to clearly identify the types of revenues being generated by ODPS is difficult due to the lack of specificity in recording information in OAKS. OAKS is Ohio's Enterprise Resource Planning (ERP) system and provides central administrative business services to state agencies. One of these services are a set of financial management tools that allow for standardized processes for the reporting of revenue and expenditure data along with other accounting processes. Collecting this information in a uniform manner allows for detailed analysis into the efficient and effective deployment of state funds.

There are fields within OAKS that are intended for enhanced coding of revenue data. We found that ODPS does not utilize some of these fields and instead uses department specific systems for coding this information. Because ODPS does not utilize all fields within OAKS for the coding of revenue data, it was difficult to evaluate the efficiency of some programs within the Department without the use of internal systems.

Further analysis should be conducted to determine the optimal level of revenue coding within OAKS, particularly compared to other state agencies. This should include a review of what information is necessary to ensure transparent and effective accounting procedures centrally throughout all state agencies.

Information Technology

As workplaces continue to evolve with technical advances, Information Technology, or IT, is the backbone that allows governmental organizations to efficiently and effectively provide services, distribute information, and manage data. An organization's IT department provides critical support that makes it possible to perform all types of daily operations. From providing basic technical support to developing and maintaining complicated databases, IT supports the organization and helps to ensure more efficient operations.

Background

IT is a critical support function for any organization. However, due to the nature of work performed by ODPS, IT takes on an even more important role – maintaining systems and applications that help to ensure the safety and security of Ohioans. If one system shuts down, even temporarily, staff at the Department can lose contact with key information they need to do their jobs.

ODPS has a staff of over 250 FTEs within IT, including 194 FTEs employed by the Department directly and 59 consultants that are hired for specific projects or to provide a specialized skill set. These individuals perform a variety of functions including:

- Cyber Security for business units in ODPS including Homeland Security and EMA²³
- IT project creation and execution
- General PC and device support for ODPS business units
- Software application support and development

Because of the type of work ODPS performs, IT must be available at any hour to provide a quick response. If a system which supports OSHP goes down in the middle of the night or on a weekend, Patrol Officers can't take hours off while waiting to get back on-line. This is a special consideration when reviewing the Department's IT operations; it is not a typical 40-hour work week function.

Why We Looked At This

ODPS identified IT operations as an area of interest for operational review. While IT is integral to the overall functionality of an agency, it is also a very costly aspect of operations. In FY 2021, ODPS is projected to spend \$99.96 million on IT. Due the expense associated with IT operations, even marginal improvements in operational efficiency can result in significant savings.

²³ Emergency Management Agency

What We Looked At

Within IT operations we focused on four key areas:

- **Staffing:** Overall staffing compared to other state agencies as well as the use of consultants;
- **Inventory:** Current inventory and lifecycle planning for IT equipment such as laptops;
- **Software Programs:** The agency's process for tracking and maintaining software programs and licenses; and,
- **IT Governance:** The framework which ensures IT investments support business objectives.

What We Found

We found that, based on state averages maintained by the Office of Budget and Management (OBM), ODPS IT is staffed at a level consistent with industry standards. The two staffing areas where ODPS levels were higher than the benchmark were due to the size of the user base and the support needed for the applications the Department utilizes for its business units. While overall staffing is in line with the benchmarks maintained by OBM, we did find that the Department could reduce costs related to long-term consultant labor.

Our review of IT operations identified five recommendations that could improve operational efficiency and effectiveness:

- **Recommendation 3.1:** ODPS should follow its IT Project Governance procedures. The ODPS IT project governance process was created to enhance the strategic prioritization of projects. Following procedures and updating them to include budget estimation guidelines will help ODPS to make more informed decisions regarding current and future projects, which could lead to cost savings. Additionally, it may help the Department streamline the high number of ongoing projects.
- **Recommendation 3.2:** The Department should work to transition longer-tenured consultant staff to regular FTE positions to reduce the risk of losing institutional knowledge and reduce costs related to consulting fees. Further, the Department should establish a staffing plan that prioritizes hiring full-time staff and using consultants only when necessary for short-term projects. By doing so, the Department could save up to \$1.1 million in the first year of implementation.
- **Recommendation 3.3:** The Department should consider using flexible staff schedules to coincide with planned work outside of normal business hours to reduce the amount spent on overtime costs. By implementing flexible scheduling, the Department would save approximately \$200,000 annually in reduced overtime expense. During the audit, the Department began to implement this policy.
- **Recommendation 3.4:** The Department should deploy computers that are currently in inventory and replace those units that are five years or older. By doing so, ODPS could increase employee efficiency and minimize employee downtime attributable to old technology. Currently, the lost productivity equates to approximately \$2.9 million in

annual wages. Once the newer technology is deployed, the Department should institute a lifecycle replacement plan for IT inventory to prevent future productivity issues, decrease waste, and limit inventory and the associated depreciation of new but unused equipment.

- **Recommendation 3.5:** ODPS should implement audit and inventory procedures of software products to ensure it has the most up to date information on which software products are currently in use and for what purpose. To accurately track this information and make informed decisions related to software, ODPS should track usage of software products to determine which are truly necessary. Costs pertaining to each software product should also be tracked, as well as licensing and renewal periods.

Recommendation 3.1: Project Governance Procedures

ODPS should follow its IT Project Governance procedures. The ODPS IT project governance process was created to enhance the strategic prioritization of projects. Following procedures and updating them to include budget estimation guidelines will help ODPS make more informed decisions regarding current and future projects, which could lead to cost savings. Additionally, it may help the Department streamline the high number of ongoing projects.

Impact

Although there is no direct financial implication from this recommendation, following procedures and updating them to include budget estimation guidelines will allow ODPS to make more informed decisions regarding current and future projects, which could lead to cost savings.

Background

IT governance is a formal framework that provides a structure for organizations to ensure that IT investments support business objectives.²⁴ Information Technology projects and investments can be costly, and without proper governance and business involvement they may not fully support the needs of a department.

ODPS has an IT project governance framework in place, but is currently not following internal procedures. The Department's budgets for projects do not match those within Decision Lens²⁵ and no master document is kept to track all projects simultaneously. The FY 2020 requested budget for IT from ODPS was approximately \$88.84 million, while the FY 2020 actual ended up being \$98.67 million. While this is not solely due to project spending, these are types of discrepancies that occur when budgets are not accurately implemented and tracked.

Methodology and Analysis

Throughout this audit, OPT obtained the IT project governance procedures from ODPS. We learned that the process was audited by OBM in 2019 and was determined to be well-controlled. The data we received pertaining to current projects and projects under analysis appeared to have some red flags. The total cost exactly matched the estimated budget for two of the projects that were 100 percent complete. The percent complete appeared to be calculated by taking the cost divided by the estimated total budget, but not a predetermined budget. In a meeting conducted with ODPS, it was verified that these numbers were created to meet our request.

To attempt to verify the project numbers, the Office of Information Technology (OIT) was contacted to obtain Decision Lens data. When comparing the two lists provided, it was clear that budgets were vastly different for projects that could be matched up. Many projects were also not

²⁴ "What is IT governance? A formal way to align business & IT strategy," *CIO* (2017).

²⁵ Decision Lens is a software used for project management purposes including portfolio and budget planning.

present in Decision Lens but were shown on the document sent by ODPS. OIT indicated that ODPS had not been in the Decision Lens since November 2019.

After we conducted interviews with the Department about the issue, it was revealed that ODPS had only started tracking project costs at the beginning of FY 2021. In an attempt to verify that project governance was being properly followed, OPT requested evidence for 10 projects, but received data on only two. ODPS acknowledged a break in the IT project governance process and said that one cause was the turnover of administrative personnel. Essentially, ODPS had paused its project governance process to review and revamp it. While it was paused they did not follow any of the procedures for projects that took place in that period. The paused period appears to have been for at least the first half of 2020, but most likely longer. The project governance process should be reviewed and updated periodically, but it should not be disrupted by administrative turnover.

Conclusion

ODPS should follow its current project governance procedures, as well as review and update the procedures periodically to create a process that involves more budget planning and tracking.

Recommendation 3.2: Apply Strategic Staffing

ODPS should work to transition longer tenured consultant staff to regular FTE positions to reduce the risk of losing institutional knowledge and reduce costs related to consulting fees. Further, the Department should establish a staffing plan that prioritizes hiring full-time staff and using consultants only when necessary for short-term projects.

Impact

In order to hire consultant labor, the Department must pay fees to third party staffing agencies. By reducing the number of consultants, ODPS could save up to \$1,145,613 in the first year of implementation.

Background

ODPS employs more than 250 FTEs within the IT section. Of these employees, 59, or nearly 25 percent, are consultants. Consultant work is typically short-term and highly skilled labor. The State of Ohio created a Guidelines for Contracted Resources policy in late 2020 which indicates, effective July 1st, 2021, any new contracted resource performing IT functions should be tied to project lengths and should be less than two years in duration. However, consultants at ODPS have been with the Department on average for more than 4.5 years.

ODPS, like all cabinet agencies, is authorized a specific number of employees in conjunction with its biennial budget request. If it wishes to add a function or position, it must either do so within the authorized number (through vacancies or eliminating one function and replacing it with another) or ask OBM for an increase to its authorized employee total. While the use of consultants helps the Department avoid approval processes relating to hiring new full-time employees, it is ultimately a costly staffing option.

Methodology

We reviewed the Department's use of consultant labor within IT. This included how many staff members were in IT job functions, which were ODPS employees and which were consultants, as well as their job titles or job title equivalents for the consultants. In order to complete our analysis we obtained available staffing data through OAKS BI in order to add more depth to the employee data received from the Department, and also conducted a survey of consultant labor to identify more information for these employees in regards to their actual pay²⁶ versus what ODPS was being billed by Knowledge Services.²⁷

Once financial information was obtained for IT consultants, we reviewed job descriptions in order to identify where the Department had existing regular employees doing work similar to the

²⁶ Pay was received in hourly rate values, as well as weekly, monthly, or annual values which were converted to hourly

²⁷ Knowledge Services is a private company which provides full-service workforce management solutions through a contract with the State of Ohio.

consultants. This allowed for a direct comparison of the costs to the Department for IT consultants vs. regular employees that had job tasks that were the same or similar to one another.

The general usage of IT consultants was also analyzed by calculating the average length of time active consultants have been with ODPS. During this stage we also researched the process for extending full time job offers to these consultants, especially those which had been in positions for an extended period of time. This included reviewing the Knowledge Services contract to hire provisions, as well as the ability to receive approval to extend offers while a job ceiling is in effect.

Analysis

Consultant work is meant to be short-term, highly technical, and specific to a certain project. However, consultants at ODPS have been employed at the Department for an average of 4.5 years and maintain job titles and functions that are similar to regular employees. We found that of the 59 consultants, 51 of them were employed in functions that are also currently filled by ODPS employees.

Consultant labor can be used in order to control costs. At times, highly skilled individuals can be hired as a consultant when it may not be possible to hire such a person on a full-time basis due to cost constraints. A consultant that receives higher compensation for work done than a regular employee may be unlikely to consider full-time employment.

Using a survey, the take home rate was obtained for 45 of the consultants. We compared this rate to the hourly wages and benefits for regular ODPS employees with similar job titles.

Comparison of Consultant Current Pay vs Potential Pay as State Employee

ODPS Job Equivalent	Number of Consultants	Average Hourly rate received by Consultant	Avg. ODPS Employee Rate + Benefits	Est. change in Consultant pay if hired by ODPS
Business Process Analyst 2	4	\$45.00	\$54.01	\$9.01
Business Process Analyst 3	1	\$52.00	\$51.67	(\$0.33)
Info Technology Consultant 1	2	\$62.50	\$54.23	(\$8.27)
Information Technologist 2	6	\$42.83	\$46.13	\$3.29
Infrastructure Specialist 1	5	\$23.50	\$47.08	\$23.58
Infrastructure Specialist 3	1	\$54.00	\$64.79	\$10.79
Project Manager 3	2	\$86.13	\$76.61	(\$9.52)
Software Development Spec 1	4	\$42.08	\$41.75	(\$0.32)
Software Development Spec 4	32	\$59.90	\$68.57	\$8.67

Source: ODPS Consultant Contracts, OPT Survey results and OAKS BI Data

As shown in the table above, when examining the job equivalent titles that had survey responses, it is estimated that 53 of the 57 consultants are being paid less per hour, or within \$0.33 of the amount they would receive per hour as a State employee. The data shows that in a majority of these job functions, ODPS can compete with consultant rates when offering a job when taking into account benefits. With this knowledge, we attempted to determine whether there could be cost savings for ODPS if they were to hire some or all of their consultants, and how much this could be.

When utilizing consultant services, the Department is paying an hourly rate to Knowledge Services which includes the hourly rate the consultant earns, as well as a premium which Knowledge Services receives. The average premium for consultants is \$20.96 per hour. In order to calculate potential savings ODPS could realize by hiring their consultants to full time positions, we determined the hourly rate each consultant would be receiving in their ODPS job title equivalent. This was done by determining the step rate for each consultant, which was found after obtaining the number of years each consultant had been working with ODPS in their position and matching this to the correct step within the State of Ohio Pay Range Booklet and then factoring in the benefits for each position.

The Department of Administrative Services *Guidelines for Contracted Resources* policy states that consultants should not be retained for longer than two years due to the expected nature of contract work. Based on this criteria, we found 49 individuals currently working for ODPS IT that should be transitioned to full-time permanent positions. We then conducted a multi-step process to identify the potential annual cost savings associated with transitioning these individuals to full-time permanent staff:

- **Step 1:** Calculate hourly cost differential between consultant contract rate and full-time employee wage and benefit rate.
- **Step 2:** Multiply cost differential by 2,000 for each of the consultant positions to determine cost savings based on annual allowable number of work hours in consultant contracts.
- **Step 3:** Multiply state wage and benefit rate by 80 for each of the classified positions to determine cost associated with additional work hours that would be necessary for permanent state employees.
- **Step 4:** Subtract the cost identified in **Step 3** from the savings identified in **Step 2** to determine net savings associated with transitioning long-tenured consultants to permanent staff positions.

After completing our calculations, we determined that if each of the 49 consultants decided to transition to a full-time permanent position with ODPS, the Department would save approximately \$1.1 million in the first year of implementation.

ODPS should be strategic in its decision process for hiring consultants in order to avoid any potential fees from Knowledge Services. For example, there is a fee associated with hiring a consultant if that employee has completed less than 900 hours on their current contract. Additionally, five of the 49 consultants with 2 or more years of tenure with ODPS would cost

more to hire on full time, resulting in an additional cost of \$111,606 in year one. In our analysis, these employees were still counted, as conserving institutional knowledge is very important.

Conclusion

Transitioning long-tenured consultants to full-time permanent positions could save the Department up to \$1.1 million in the first year of implementation based on consultants that have been with ODPS for more than two years. By transitioning consultants to permanent positions, the Department also guards against potential issues relating to the loss of institutional knowledge when consultants leave ODPS employment.

Recommendation 3.3 Reduce Overtime Expense

ODPS should consider using flexible staff schedules to coincide with planned work outside of normal business hours in order to reduce the amount spent on overtime costs.

During the course of the audit, the Department began to implement this policy.

Impact

By flexing employee schedules, the Department could save \$200,000 annually in avoided overtime expenses. This action offers less risk and more structure for regularly scheduled work outside of a normal work schedule by assigning staff to hours rather than relying on an employee's acceptance of overtime.

Background

ODPS spends money each year on overtime within the IT section. This expense is primarily related to planned overtime for scheduled upkeep and software launches. IT is a 24-hour process, with systems, applications, and resources being used at all times. This could include making sure there are employees on standby to fix issues at any given moment, or performing updates over late evening or early morning hours so as to reduce ODPS downtime. While some overtime is unavoidable due to operational needs, the Department should work to minimize this expense where possible.

Methodology

We identified the average amount spent on overtime for FY 2017 through FY 2020 by using OAKS BI data. Filtering this data, we were able to examine how many hours and how much was paid to each employee under the pay code "Overtime". By creating tables and totaling these values for each year between FY 2017 and FY 2020, we were able to see a complete picture of this overtime activity. In order to understand the reasons for overtime, we conducted interviews with Department officials. Finally, the Collective Bargaining Agreement for IT employees was reviewed in order to determine what provisions relating to overtime, or work out of regular hours, were in place.

Analysis

Using our tables for FY 2017 through FY 2020, we calculated that ODPS is spending more than \$200,000 per year on average in overtime costs within its IT section. It should be noted that there are additional time codes that may be related to overtime hours; however, these were left out of the analysis as these additional hours were not verified to be overtime. The Department indicated that, while there are instances of unplanned overtime, most of this time is related to planned work tasks for launches and scheduled upkeep.

ODPS Overtime Expense Totals

FY 17	\$231,471.26
FY 18	\$166,098.88
FY 19	\$203,709.37
FY 20	\$207,355.51
Average	\$202,158.76

Source: OAKS BI

The collective bargaining agreement, under which ODPS IT works, contains provisions for flexible scheduling, including compressed work week schedules, variable starting and ending times, and other flexible hours concepts. Given that ODPS indicated a majority of their overtime hours came from work tasks that were planned, it is in a position to incorporate flexed hours in order to avoid paying as much of these overtime costs as possible.

Conclusion

Flexing IT staff schedules to coincide with planned work outside of standard work hours will reduce the amount ODPS is spending on overtime each year and save the Department approximately \$200,000 on an annual basis.

During the course of the Audit, ODPS indicated that it had started to implement flexible schedules for its IT staffing.

Recommendation 3.4: IT Equipment Lifecycle Plans

ODPS should implement a lifecycle replacement plan for IT inventory items, such as CPUs and laptops, in order to increase productivity and decrease waste. As a first step to this process, ODPS should deploy the CPU and laptop inventory currently in storage at the Alum Creek Storage Facility to replace as many single-user devices currently aged five years or older as possible. Doing so would increase efficiency and reduce productivity loss due to computer downtime, as well as limit inventory and associated depreciation of new but unused equipment.

Impact

As previously discussed, older technology can result in reduced productivity for employees due to delays in processing. Implementing a lifecycle replacement plan for IT inventory will allow the Department to maximize the useful life of technology and increase employee productivity while reducing expenditures relating to outdated inventory.

Older computer equipment can take longer to load systems and operate. This lag time results in employee downtime that could otherwise be productive. Replacing outdated systems with those that are already available in storage would save the Department more than \$2,993,059 in lost time in the first year of implementation. Additional savings would occur in subsequent years equal to the amount of time the older device would have lasted without being salvaged.

The decreased productivity and generally slow speeds of these devices impacts Ohio's citizens every day. There are longer wait times at BMVs, longer transaction times, as well as safety issues created when devices used by OSHP and EMS are running slowly.

Background

ODPS currently does not have a lifecycle replacement plan for IT inventory items. When an item reaches its warranty it may be examined to see if it needs to be repaired. Once an item is past warranty it is used until it breaks and is then replaced. Many of the items ODPS has in storage are aged and obsolete. The items currently used are also aged.

Technology, particularly computer equipment, becomes out of date quickly. As computers age, they become slower and take longer to perform basic functions. We identified more than 4,000 devices in use by ODPS that are more than five years old. Even after implementing BMV/ATPS replacement devices, there will be nearly 1,900 CPU or laptop devices in use that are five years or older. At the same time, ODPS currently has inventory in storage that has not yet been used and is newer than devices in service; specifically, there are 419 devices in storage that are aged two years or less.

Methodology

IT replacement plans vary in regard to the stages of equipment and the age considered to be end of life. Research was conducted by OPT to examine IT replacement plans and identify processes which could benefit ODPS.

In order to conduct a sample analysis, two item descriptions were pulled from the IT inventory data received from ODPS: CPU and PORTABLE PC/LAPTOP. The Ohio Department of Administrative Services (DAS) considers the useful life of a desktop computer to be five years, and the useful life of a portable PC to be four years. When comparing ODPS' inventory in for two items to those benchmarks, OPT found many items in use and in storage which were at or above these ages.

An analysis was conducted to demonstrate how going without a lifecycle plan has had a negative impact on ODPS within the item categories CPU and PORTABLE PC/LAPTOP. Recently, a project was initiated at ODPS to replace devices at BMV and Automated Title Processing System (ATPS) locations. Using productivity costs outlined in a J. Gold Associates study and survey,²⁸ OPT was able to calculate the additional productivity lost due to the devices being nearly a year old once deployed versus brand new. We also obtained the salvage data for the most recent five year period in order to understand how old items typically were when ODPS replaced them.

Using inventory data, we determined how many items were in use by single users and were not located at a BMV or ATPS location due to the deployment plan already launched. We identified items in storage that were newer than devices in use and created a model to show how using those stored items to replace as many of the in-use older items as possible could generate savings using metrics developed by J. Gold Associates.

There were two major metrics present in the J. Gold Associates report. The first was additional workers needed in order to compensate for lost productivity due to PC startup time. As a PC ages, the amount of time it takes for the device to start up after being shut down gets significantly longer. This report was able to calculate a percentage of additional workers needed for each device due to lost time as a result of waiting for a device to startup. The second metric was additional workers needed to compensate for lost productivity due to PC age. This metric was developed using survey information in response to questions about age of computers at the company, percentage less effective for each PC age range, and how much time employees spent using the devices. Lastly, we calculated the cost for salvaging, replacing, and setting up new devices so we could subtract this cost and provide a more accurate number.

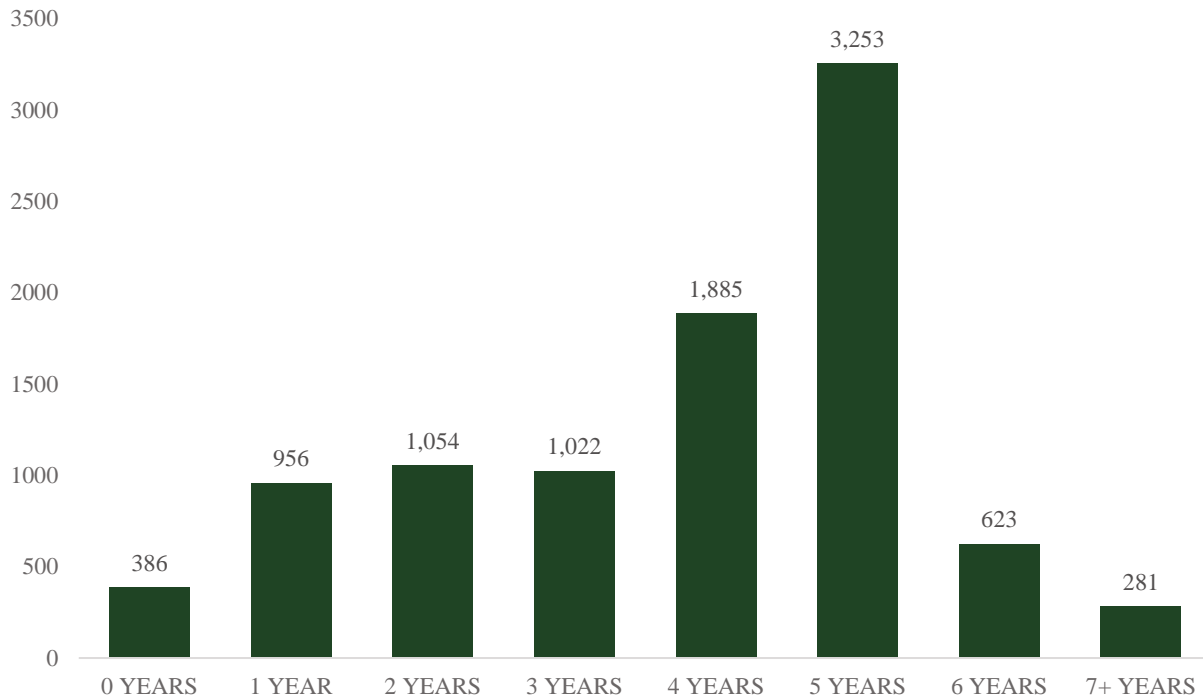
Finally, we filtered inventory data to examine CPU and PORTABLE PC/LAPTOP items which had never been used and calculated the cost of these items in today's dollars. This allowed us to add up the cost of this unused inventory to ODPS, and using today's value for each item we determined the lost value for these devices.

²⁸ "Older PCs in SMB Cost Study – Selected Results" A J. Gold Associates Research Report, August 2018

Analysis

ODPS has inventory that is very old with much of it well past the recommended cycle time maximum, based on IT industry suggested lifecycles, as well as the State’s useful life values.

In-Use CPU & Portable PC / Laptop Ages



Source: ODPS

OPT identified 419 CPUs and laptops in storage which were two years old or younger. Using that information, we were able to create a model to estimate savings due to productivity increase if these newer devices replaced 419 of the oldest devices currently in use by single users.

As of June 11, 2020, the average CPU in use was 3.8 years old and the average laptop in use was 3.9 years old²⁹. When using the DAS useful life as the benchmark, 57.5 percent of the in-use laptops were at the four year benchmark or older, and 46 percent of the CPUs were at the five year benchmark or older. Completing the BMV/ATPS replacement project will improve upon these percentages; however, ODPS would realize productivity savings and other benefits if it replaced devices before they exceed their useful lifespan.

ODPS should implement an IT asset lifecycle management process plan to help with replacement decisions. These plans generally have four steps. Two processes examined during

²⁹ The data used to calculate these values was obtained prior to the completion of the BMV and ATPS laptop deployment project completion, so the laptop average age decrease after this is complete.

this review were the IT asset lifecycle management process within the IT Asset Management Policy for the U.S. Nuclear Regulatory Commission, as well as the University of San Francisco Technology Acquisition Life Cycle Management High-Level Process. The steps identified were a planning and acquiring phase; a configuring and deployment phase; a maintaining, supporting, and upgrading phase; and lastly, a retiring/disposal phase.

- 1. Plan and Acquire:** This step involves creating plans to acquire an IT asset that falls in line with standards in place within the agency and following the purchase process currently in place.
- 2. Configure and Deploy:** Within this step, the agency is placing the purchased items in inventory, tagging them appropriately, and ensuring each device can adequately be tracked over the course of its life. This step also includes plans for sending items to the user or the location they are needed and setting them up.
- 3. Maintain, Support, and Upgrade:** Here the agency is dealing with the bulk of the life of an asset. Monitoring the items performance and adequately ensuring each item is following standards in place for that item type. Upgrade plans should also be in place to keep each asset up to date and running at optimal levels.
- 4. Retire and Dispose:** The final step involves decommissioning an asset. This should be done according to a set end-of-life age or performance level.

At a maximum, the end of life values for IT assets should be consistent with the DAS useful life expectations. For CPUs and laptops, the useful life is five and four years respectively. However, many sources indicate it is more beneficial to have a shorter replacement cycle in place for these items. J. Gold Associates indicated in a separate report that the recommended replacement duration for PCs was two to three years. Intel states that a useful life span for devices is between two and four years. The University of San Francisco uses four years for desktops and three years for laptops.

This type of all-encompassing plan for IT assets will put in place a solid process for IT asset management, allowing ODPS employees to be on the same page for asset life stages and steps. Incorporating a replacement plan into the ODPS asset management strategy will provide cost savings by minimizing excess purchasing and creating productivity savings.

The devices purchased to replace aged devices at BMV and ATPS locations were received between August and December of 2019. However, due to the number of devices there were still nearly 2,000 in storage as of June 2020. These items are nearing a year old, which means they will be significantly less efficient than a brand new device and ODPS will have missed out on a period of the highest possible productivity. Instead of being brand new when deployed, these items will cost ODPS an additional \$25,634 in lost productivity compared to the capabilities of a brand new device.

Another method of demonstrating the negative effects of not having a replacement plan is through examining the inventory data's age and the age of the devices going to salvage. Of the CPUs and laptops salvaged between FY 2015 and FY 2019, 97 percent were salvaged at or after

the DAS useful life. Of these items, 77 percent were disposed of at least a year after their useful life, and nearly 20 percent of the items were at least double the useful life when salvaged.

ODPS has many devices in storage that have never been used. We estimated the total productivity savings for one year if the Department were to deploy stored devices that were less than two years old and unused in order to replace the oldest devices currently in use. Using the J. Gold “Additional Workers Needed” metric for startup time, a cost savings of \$91,296 was identified for the first year after deployment. This is achievable by replacing 419 5+ year old devices in use, which have an average startup time of 3.84 minutes, with 419 devices aged 0-2 years old, which have average start up times of .51, .67, and 1.0 minutes respectively. The “Additional Workers Needed” metric for productivity by age of PC indicated a cost savings of \$3,116,593 for the first year after deployment. This savings can be realized by replacing the older devices, which require an additional 17.64% of an employee each, with the newer devices which required an additional 5.39% of an employee or less.

Transitioning to a new device takes time and resources. Using ODPS-provided lead times for each task involved in this process, OPT found that the maximum total time was approximately 13 hours. The employee carrying out these tasks is typically either an Infrastructure Specialist 1 or 2, whose average hourly rate is \$39.64. That rate multiplied by maximum total time equals \$512.72 per item. That value was multiplied by the 419 devices being replaced to get a total cost of \$214,830.

Conclusion

ODPS should implement a lifecycle asset management plan, including determining most efficient end of life values, for IT inventory items such as CPUs and laptops in order to increase productivity and decrease waste. At a minimum ODPS should use the DAS useful life values for their IT assets, as currently the age of ODPS’ inventory appears to be at or above the mark indicating they are not operating as effectively or as efficiently as possible. ODPS should deploy the CPU and laptop inventory within storage at the ACF to replace any single user devices currently aged five years or older. This action could generate savings by avoiding up to approximately \$2,993,059 in productivity loss over the next year.

COMPUTERS IN INVENTORY

The ODPS unused inventory data showed that it had 3,365 CPU or PORTABLE PC/LAPTOP inventory items in storage that had yet to be used. Some of the computers had been in storage for multiple years without ever being used. The breakout of the unused devices and their associated age is as follows:

- 2,821 computers age 1 to 2 years old
- 217 computers age 2 to 3 years old
- 49 computers age 3 to 4 years old
- 126 computers age 4 to 5 years old
- 108 computers age 5 to 6 years old
- 17 computers age 6 to 7 years old
- 10 computers age 7 to 8 years old
- 5 computers age 8 to 9 years old
- 12 computers age 9 to 10 years old

Due to depreciation, these devices, which had an original purchase price of nearly \$2.5 million are worth considerably less now than they were originally purchased. Alternatively, users receiving their laptops could have received a noticeably better computer for the same money if those computers had been purchased under a just-in-time inventory management methodology.

While there is no industry criteria for determining the depreciation of an unused computer sitting in inventory, an analysis comparing some of the computers ODPS purchased relative to their current market value when refurbished yielded, on average, a 14.8 percent loss in value annually. This depreciation, in addition to ODPS's inability to use those funds while sitting on inventory totals an estimated lost value of \$637,327.

Recommendation 3.5 Use Office of Information Technology Software Inventory Programs

ODPS should implement an audit procedure to review the inventory of software products to ensure they have the most up to date information on which software products are currently in use and in what capacity they are being used. In order to accurately track this information and make informed decisions related to software, ODPS should be tracking usage of as many software products as possible to determine which are truly necessary. Costs pertaining to each software product should also be tracked. These processes would all be made easier if ODPS were to implement the ServiceNow³⁰ asset management tools available to it.

Impact

Software acquisition, licensing, and maintenance are costly endeavors for any entity. With better tracking of software cost and use data, more informed decisions can be made regarding which software licenses are needed for Departmental operations, resulting in potential savings.

Background

ODPS utilizes Microsoft's System Center Configuration Manager (SCCM) for all software related tracking and operations. Currently, neither software licenses nor usage are being tracked for all products. Further, no current software audit process is in place for the Department.

SCCM is used for managing large groups of computers by providing remote control, patch management, software distribution, OS deployment, hardware, and software inventory. SCCM is not set up to track software data other than inventory.

ODPS already uses ServiceNow, specifically the Service Desk tool within the IT Service Management (ITSM) function. Previously, ODPS had attempted to use the ITSM Asset Management tool, however this was more than five years ago and prior to any other implementation of this tool among State agencies.

Methodology

OPT interviewed ODPS to gain an understanding of the software structure within the agency. Data was requested and examined, including software products, their versions, and counts, indicating the number of devices on which these products were installed. This data was pulled from SCCM by ODPS, and the format of this report precluded analysis for further conclusions. In order to gain a better understanding of this data a demonstration was provided by ODPS to show what the data looked like within SCCM and how it operated.

³⁰ ServiceNow is a cloud-based IT service management tool that provides internal and external support through an automated service desk work-flow based application.

ODPS indicated that there is no auditing process in place for software products. OPT conducted research to determine the negative effects of having users on different versions of software. Per ODPS-provided data, there are more than 547 software products with multiple versions used at the Department. OPT also conducted an analysis using expense reports from the Department to determine the cost of software maintenance and licenses for FY 2017 through FY 2020.

Software Related Costs FY17-FY20

	FY17	FY18	FY19	FY20
Total Software Licensing Cost	\$2,587,558	\$324,081	\$340,663	\$1,485,988
Total Software Maintenance Cost	\$8,274,079	\$8,139,894	\$9,354,368	\$5,498,012

Source: ODPS and OAKS BI

Research was conducted in order to gain a better understanding of whether SCCM was the best product for software tracking and auditing. It was clear from the interviews with ODPS and through our research that this product was not an appropriate software auditing option because that functionality exceeded SCCM design parameters. The Office of Information Technology (OIT) within the Department of Administrative Services, which is responsible for state-wide IT management, identified a tool within the ServiceNow toolbox that could meet the needs of ODPS in terms of tracking software products and their licenses.

ODPS IT noted it had tested the ServiceNow ITSM Asset Management tool when the tool had first become available, but did not end up using this resource long-term. Interviews and demos were conducted with OIT and ServiceNow representatives in order to develop a better understanding as to the functionality this tool could offer ODPS.

Analysis

According to data received from ODPS, the agency is not able to quickly identify the total number of software products. The original report indicates that there are many software products from more than 500 publishers and the total “software count” was 447,210, which is the number of times a software product was deployed on a Department PC. The file received from ODPS indicates there are currently 32,665 licenses held by the Department. In FY 2020, ODPS spent approximately \$5.5 million on software maintenance. This amount was \$2.3 million less than the FY 2017-FY 2019 average of \$7.8 million. The Department spent nearly \$1.5 million on licensing in FY 2020, compared to the FY 2017-FY 2020 average of \$1.2 million. While ODPS tracks software maintenance costs, it no longer does so on a per product basis.

The State of Ohio has a software licensing policy³¹ that went into effect on October 13, 2016. According to the policy:

“Agencies shall maintain an inventory of all authorized software acquired and installed. Licensed software records shall be maintained in such a way as to be

³¹ State of Ohio Administrative Policy- Software Licensing, IT-03, October 13, 2016

sufficient to determine the number and duration of software licenses. The type of information collected and maintained might include, but is not limited to, the following: Purchase documentation; number of licenses; serial numbers, access codes, or license keys; location and quantity of original media; location of each installation of the licensed software; evidence of registration; and actual license agreement. Agencies shall establish procedures for conducting periodic licensed software audits to inspect all servers, personal computers, and mobile computing devices under the control of or operated for the benefit of the agency to ensure that only authorized software is installed. Audit procedures shall compare the number of license in the software inventory with the actual number of uses and, if discrepancies are found, corrective action shall ensure that only authorized and properly licensed software is installed.”

According to ORC § 126.506, “At the direction of and in the format specified by the director of administrative services, each state agency shall maintain a list of information technology assets possessed by the agency and associated costs related to those assets.”

After meeting with ODPS, it appears they are able to use the SCCM to track usage for software products, but through presenting the SCCM environment to us, it was clear this would take a vast amount of time. If they were able to implement simultaneous reports tracking the usage for their products, they would be able to get a better picture of the current software product situation, whether that's using SCCM or an alternative resource.

When researching the ServiceNow ITSM Software Asset Management tool, we learned that when ODPS tested the service, it was at the beginning stages of offering this tool to state agencies. Since then, the tool has been refined over four additional years of implementation, and now several state agencies use this tool for hardware and software asset management. The tool would not have a cost for ODPS, as they already use another component of ServiceNow. The ITSM module’s capabilities include tracking software licensing, software product versions, usage via a last used metric, as well as many other options that would make it easier for ODPS to audit, track, and make decisions regarding their software products.

Conclusion

ODPS should implement an audit procedure to review software products and ensure it has the most up-to-date knowledge of which software products the Department owns and in what capacity they are being used. In order to accurately track this information to be able to audit and make informed decisions related to software, the Department should be tracking usage and associated costs of as many software products as possible to determine which are truly necessary. Both of these tasks could be accomplished by implementing the ServiceNow Software Asset Management tool and integrating it with the Department’s SCCM. ODPS should consider reaching out to OIT and ServiceNow for more information regarding this tool and create a timeline for implementation.

Fleet

Fleet is a valuable organizational asset and it is important to implement management practices that promote the maximization of the useful life and utility of each vehicle or piece of equipment while simultaneously minimizing long-term costs and potential liabilities. Proper fleet management helps streamline agencies' efforts to achieve fleet efficiency, effectiveness, and transparency.

The operation of vehicles is pivotal in helping ODPS achieve its overall mission of contributing to a safer Ohio. The Department's mission could not be achieved without a well-managed fleet of vehicles.

Background

The Ohio Department of Administrative Services (DAS) has exclusive authority over the acquisition and management of all vehicles used by state agencies. In the past, DAS has delegated that fleet management authority to some state agencies, including ODPS, that have demonstrated they can adhere to guidelines set forth in the Ohio Administrative Code (OAC) and the ORC.³² These rules are designed to ensure self-managed agencies, such as ODPS, are implementing processes and procedures that will allow for efficient, effective, and transparent fleet management.

As of June 30, 2020, the Department maintained a fleet of 2,289 vehicles. Nearly 90 percent, or 2,033 vehicles, are used by the Ohio State Highway Patrol (OSHP or the Patrol). The bulk of these vehicles are law enforcement cruisers driven by state troopers, making it possible for them to provide traffic services on our roadways ranging from assisting stranded motorists to performing crash investigations.

Vehicles by ODPS Division as of FY 2020

Division	Vehicles
OSHP	2,033
BMV	142
DPS	46
EMA	39
CJIS	19
HLS	8
EMS	2
Total	2,289

Source: ODPS

The nature of the work conducted by the Patrol necessitates a large fleet of vehicles that are used daily. By default, this is a costly operation. In addition to the Patrol's fleet, ODPS has

³² OAC 123:6-1-04 and ORC § 125.832

approximately 250 other vehicles driven by civilians ranging from take-home vehicles to pool vehicles that are used to carry out various aspects of the Department’s mission. It is critical that policies and procedures are in place and are followed to minimize fleet expenditures while maximizing fleet utilization. Proper policies and procedures help ensure the Department is satisfying the requirements stipulated in the OAC and ORC specific to self-managed agencies.

ODPS uses a variety of vehicles, as shown below. The category with the most vehicles is the “Police Sedan – Charger”, which is an enforcement vehicle used by the OSHP.

Vehicle Breakdown by Category as of FYE 2020

Vehicle Type	Count
Police Sedan – Charger	1,080
Sedans	335
Police SUV - Chevy Tahoe	265
Police SUV - Ford Explorer	143
SUVs	111
Cargo Vans	89
Passenger Vans	62
Pickup Trucks	59
Trailers	59
Police Sedan – Other	43
Police Motorcycle	24
Other Trucks/Buses	19
Total	2,289

Source: ODPS

What We Looked At

In order to understand the current state of the Department’s fleet management practices and identify opportunities for improvement, we looked at four key areas that included the following:

- Utilization and vehicle assignments
- Lifecycles
- Vehicle pools and pooling practices
- Maintenance practices

Why We Looked at This

The Department’s fleet is both a valuable asset and a significant cost. Annually, ODPS spends about \$18 million on fleet maintenance, repairs, and purchases. Proper fleet management practices and strategic fleet cycling protocols, along with a right-sized fleet that has been appropriately assigned, will allow the Department to minimize costs associated with fleet ownership and maximize potential savings.

As a self-managed state agency, ODPS is obligated to satisfy requirements that are stated in the OAC 123:6-1-04, ORC § 125.832, and DAS Policy VF-03. OPT examined the degree of compliance with all three.

What We Found

We identified five recommendations, which will allow ODPS to make efficient, effective, and transparent financial decisions relating to fleet management practices:

- **Recommendation 4.1:** Currently, FleetOhio³³ reflects ODPS vehicle maintenance and repair transactions that have been improperly coded by vendors and is lacking data for car wash purchases. The Department should ensure that all expenses, including car washes, are captured in FleetOhio. ODPS should improve Voyager/FleetOhio reconciliation practices to rectify erroneous work order entries by using the ODPS Vehicle Job Report, which breaks down maintenance activities, and enforcing reconciliation policies and procedures.
- **Recommendation 4.2:** ODPS does not have a pool fleet reservation system to track daily utilization of its pool vehicles. The Department is operating with excess vehicles spread out in separate pools, often at the same locations. ODPS should right-size and consolidate pool fleet vehicles and also implement use of the DAS Reservation Portal, or a similar system, for tracking daily utilization of pool fleet vehicles. Optimizing the number of pool vehicles would result in annual savings of \$30,000 and one-time revenues of \$88,000 related to the salvaging of excess vehicles.
- **Recommendation 4.3:** The Department is operating outside the bounds of its policy of maintaining two vehicles for every three post troopers. The existing OSHP policy of limiting the number of law enforcement vehicles to two for every three post troopers should be enforced. Eliminating vehicles in excess of this policy could result in annual savings of more than \$730,000.
- **Recommendation 4.4:** Out of all civilian employees with take-home vehicles, there are 3-5 employees not meeting the personal mileage breakeven threshold. ODPS should use a break-even calculation that takes into account the full costs associated with maintaining non-law enforcement vehicles when determining the value of assigning take-home vehicles to civilian staff. The Department should then right-size the existing fleet and eliminate vehicles where the cost of personal mileage reimbursement would be more efficient. Based on the current reimbursement rate of \$0.45 a mile, ODPS could save \$18,000 annually.³⁴
- **Recommendation 4.5:** ODPS does not have a policy in place to determine the optimal fleet cycling mileages of its police protector vehicles. The Department should develop and implement fleet cycling policies in order to ensure the most efficient use of fleet vehicles. Maintaining vehicles beyond their useful life results in increased costs of

³³ Fleet Ohio refers to the Fleet Ohio Information Management System, and is a repository for fleet data used by state agencies in Ohio.

³⁴ If the reimbursement rate is restored to the previous amount of \$0.52 per mile, it would result in an annual cost savings of \$17,000.

ownership. Switching to an optimized fleet cycling process could save the Department between \$431,000 and \$1.1 million annually.

- **Issue for Further Study 2:** ODPS should review the use of take-home vehicles by uniformed State Troopers. To complete this review, the Department should consider enhancing the collection of dispatch data to include a notation of the location of the first and last stop of the day for each trooper with a take-home vehicle, as well as how frequently troopers respond to incidents outside of their normal shift hours. This data, once compiled, can be used to conduct further analysis regarding the cost effectiveness of the policy.

Recommendation 4.1: FleetOhio Purchase Data

Currently, FleetOhio reflects ODPS vehicle maintenance and repair transactions that have been improperly coded by vendors and is lacking data for car wash purchases. The Department should ensure that all expenses, including car washes, are accurately captured in FleetOhio. ODPS should improve Voyager/FleetOhio reconciliation practices to rectify erroneous work order entries by using the ODPS Vehicle Job Report, which breaks down maintenance activities, and enforcing reconciliation policies and procedures.

Impact

Capturing all fleet-related expenditures will help ensure the satisfactory use of the FleetOhio Information Management System. Reporting all fleet expenses in FleetOhio will allow ODPS to capture the true cost per mile (CPM) of vehicles and decrease the risk of losing their delegated fleet management authority.

Furthermore, effective and accurate reconciliation practices will ensure the Department is in full compliance with OAC 123: 6-1-04(B), which outline the responsibilities associated with the delegated authority of fleet management. Enforcing ODPS' general vehicle maintenance policy DPS 300.04³⁵ would also help to ensure the accuracy of transaction purchase data in FleetOhio.

Background

The Department uses FleetOhio to house and track fleet data. FleetOhio is an information management system that serves as a repository for fleet maintenance data maintained by DAS and other state agencies and commissions. When service is performed by a third-party vendor and paid for with a Voyager Card, vendors are provided a list of options which are used to identify the type of service performed at the time of payment. ODPS is then responsible for confirming this data and correcting any errors. However, FleetOhio reflects some ODPS maintenance and repair purchase data that has been improperly coded by vendors. This data demonstrates that some of the described erroneous vendor entries are not being corrected at the required monthly reconciliation. To assist with reconciling work orders, ODPS has a "Vehicle Job Report", which breaks down the different maintenance activities performed by vendors.

ODPS and its vendors use Voyager cards assigned to specific vehicles to complete maintenance and fuel transactions. Upon using the Voyager cards, there is an automatic upload of purchase data into FleetOhio. Vendors can enter task codes incorrectly when billing the Department in Voyager. ODPS has proposed a possible solution to this issue to DAS, which would involve terminating the Voyager automatic uploads of purchase data into FleetOhio and having Department locations, such as OSHP Posts, manually enter the work orders into FleetOhio for each maintenance transaction. This would help decrease the prevalence of miscoding. However, to date, DAS has been reluctant to eliminate the automatic uploads.

³⁵ Contains maintenance and operating guidelines for the Department.

ODPS data in FleetOhio does not include all maintenance-related fleet transactions. ODPS does not have a policy stipulating that all car washes not paid for with a Voyager card be manually entered into FleetOhio because it does not consider car washes to be fleet maintenance activities. The majority of ODPS car washes are not purchased with the Voyager Card, so car wash transaction data is not being automatically uploaded into FleetOhio. The following demonstrates a variety of ways the Department is handling car washes:

- P-Card;³⁶
- Voyager Card;
- Free washes at Ohio Department of Transportation (ODOT) Facility; and,
- Washes by employees such as state troopers or maintenance employees at ODPS locations using the Token System.³⁷

Methodology

We reviewed existing ODPS and DAS fleet management policies and procedures and applicable legal provisions within the ORC and OAC. We then analyzed FleetOhio purchase data received from DAS. In reviewing the data, we found abnormalities that included a lack of car wash data and miscoded purchase data. We then sent surveys and emails to points of contact within ODPS Fleet to gain a better understanding of our findings and more details surrounding maintenance practices.

OPT isolated and removed all questionable data points including routine preventative maintenance transactions running over \$1,000, negative maintenance costs, etc. The isolation of questionable data points made the data sufficiently reliable for use in calculating things such as average costs paid for different types of maintenance activities, average cost per mile, etc.

Analysis

As a self-managed agency, ODPS must adhere to the requirements set forth in the OAC. By not correcting all erroneous purchase data during monthly reconciliations and not including all car washes in FleetOhio, ODPS is out of compliance with OAC 123:6-1-04. OAC 123:6-1-04 (B) asserts ODPS must demonstrate the ability to use the fleet management information system, the ability to use the fleet credit card system, and “the ability to analyze regularly motor vehicle cost per mile and miles per gallon data requested by the Department, and properly apply that information to manage the agency's fleet.”

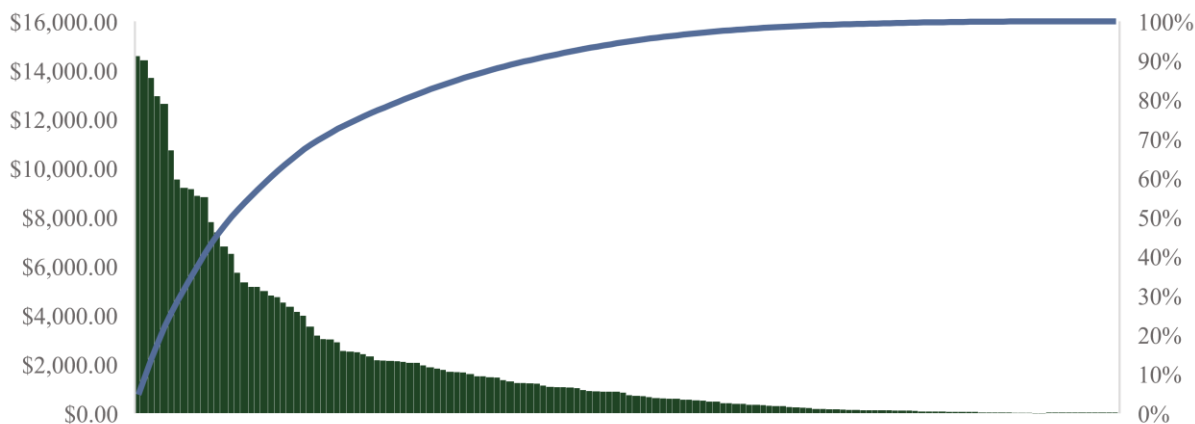
In addition, ODPS management said they do not recognize car washes as vehicle maintenance and all locations are not using the Voyager card to pay for car washes, which eliminates the automatic upload of purchase data into FleetOhio. However, the Department of Administrative Services (DAS) includes car washes in its list of approved maintenance related items. OAC 123:6-1-04(B)(3) requires ODPS to use fleet credit card system pursuant to rule 123:6-1-08

³⁶ P-Cards are used to pay for washes after an email is sent to an ODPS location containing an invoice

³⁷ ODPS location purchases tokens to be used at vendor car wash site

which requires the state fleet purchasing credit card be used for maintenance related items approved by DAS. The chart below displays total car wash expenditures³⁸ by location over the last three fiscal years.

ODPS Total Car Wash Expenditures – FYE 2018-20



Source: DAS

Note: Represents total costs of car washes captured in the FleetOhio Information System maintained by DAS. Since ODPS does not consider car washes to be preventative maintenance, the only car wash costs captured in FleetOhio are those that were purchased using the Voyager Card, which automatically uploads into FleetOhio. Totals also include the cost of wages associated with spending 15 minutes on the wash at the average rate of an ODPS employee.

Additionally, Department personnel are not correcting all miscoded maintenance and repair order entries when performing monthly reconciliations, which involves checking that the amount of money charged on a bill matches the amount of money recorded in FleetOhio. Therefore, FleetOhio reflects some erroneous fleet purchase data. It was revealed during the course of this audit that the abnormalities were caused by these reconciliation issues. As an example, some preventative maintenance transactions were discovered to be abnormally high. This is because some vendors are coding non-preventative maintenance work as preventative maintenance, resulting in inflated cost totals for that category. ODPS confirmed that there are issues with third party vendors miscoding maintenance activities, and responses to surveys sent to points of contact within ODPS Fleet confirmed this as well.

According to internal policies, OSHP must apply Voyager/FleetOhio reconciliation practices by using ODPS 0050 Vehicle Job Reports to correct vehicle maintenance or repair work order entries that have been improperly coded. Miscoding creates uncertainty for the Department regarding exact expenditures directed towards specific maintenance activities, and makes it difficult to capture an accurate CPM. The issue worsens when the miscoded entries do not get corrected in a timely manner.

³⁸ The full cost, with benefits, of the average ODPS employee is \$47.25/hour and was integrated into time spent for car washes.

ODPS is not satisfactorily using the FleetOhio Information Management System and is not capturing important and accurate data pertaining to CPM and other metrics. As a result, the Department is not in compliance with the OAC and ORC. This could result in the loss of its status as a self-managed agency.

Conclusion

As a self-managed agency, it is critical that the Department complies with all ORC and OAC statutes and DAS administrative policies. The Department should ensure all expenses, including car washes, are accurately captured in FleetOhio. Capturing all fleet-related maintenance expenditures will ensure full compliance with OAC 123:6-1-04, ORC § 125.832, and State of Ohio Administrative Policy VF-03. The lack of accurate and summative purchase data in FleetOhio can lead to poor decision making in fleet management and could lead to costly errors in the future.

Recommendation 4.2: Pool Fleet Management

The Department does not have a pool fleet reservation system to track daily utilization of its pool vehicles, which are dispersed across 11 different pools. There is no uniform system in place to capture individual trip and vehicle utilization data. ODPS should right-size and consolidate its pool vehicles and use the DAS reservation portal software or a similar system to track its daily pool fleet utilization.

Impact

By consolidating the pool fleets and eliminating the 12 under-utilized pool vehicles, ODPS could achieve a one-time salvage value savings of \$88,487 and annual fixed cost avoidance of \$29,829. If ODPS were to begin using the DAS Reservation Portal or some similar system for tracking daily utilization of pool fleet vehicles, it may be able to further right-size these pool fleets.

Background

ODPS operates 11 different pools that consist of 41 vehicles placed in three locations. The Department does not have a pool fleet reservation software system to track daily utilization of its pool fleet vehicles. There is no uniform system in place to capture individual trip and vehicle utilization data. Instead of using reservation software to record and house pool vehicle utilization data, paper trip sheets are generally used to record utilization data. This data is maintained only until a roll-up of the data totals can be entered into a self-developed Excel database and provided to DAS for annual fleet certification. Each pool fleet has a separate person who is responsible for its management and tracking pool fleet utilization. As a result, the condition of the data varies by location, and the number of pools and pool fleet vehicles are not optimized based on utilization.

Methodology

The Department's pool fleet coordinators provided OPT with limited utilization data for all pool fleet vehicles. Data did not show details regarding individual trips, but did typically show a count of days used, so a vehicle was considered to have been used for the entire day even if it may have been returned after a short trip and been available for use again. This average high-level pool utilization was compared to an 80% industry standard benchmark for all pools for which there was enough available data. Then the pool fleets were optimized, or rightsized, based on that benchmark and consolidated into just five different pools. The Fleet Administrator and a pool fleet manager confirmed that this would be possible for the Department.

Analysis

According to *Show Me the Data: How to Cut Motor Pool Costs with Utilization Metrics* (Agile Fleet, 2017), utilization data is a critical data element necessary to assess whether it is appropriate to "...shift, add, or eliminate assets."

According to *The Ultimate Guide to Understanding Fleet & Achieving a Right-Sized Fleet* (Agile Fleet and National Association of Fleet Administrators (NAFA), 2019), having a right-sized fleet is the key to fulfilling the mission of your organization, and utilization metrics provide an understanding of the size of an agency's fleet relative to its needs. Operating small, geographically co-located sub-fleets can be one of the least efficient ways to operate a fleet.

"Having the right quantity and class of vehicles available at the right location at the right time is the key to right-sizing a fleet. To achieve the right-sized fleet, fleet managers must understand the key components that affect utilization rates, effectively capture fleet metrics, continuously analyze utilization metrics, and maintain fleet policy that supports and maximizes utilization."

According to *Managing Multiple Motor Pools: Expanding Your Motor Pool Beyond One Location* (Agile Fleet, 2019), a case study of the State of Michigan shows that by utilizing pool fleet management software, the State of Michigan has been able to achieve utilization upwards of 80% in its 15 pool fleets. According to *Motor Pool Management: Benefits of Properly Scheduling and Assigning Assets* (Fleetio, 2017), some fleet management experts indicate that utilization should even be as much as 90 percent.

As a result of not having a system to track daily utilization of its pool fleets, and making no regular assessments of the optimal sizes of these pool fleets based on utilization, the Department is operating with more pool fleet vehicles than necessary in its 11 pools. ODPS has a total of 41 pool vehicles but demonstrates a need for only 29 vehicles based on an 80 percent utilization rate. Furthermore, ODPS explained that the consideration of adopting an automated system for tracking pool fleet vehicle utilization has previously been deemed too costly or unnecessary. DAS has offered the Department the use of its reservation portal in the past; however, the Department has felt that the pool fleets were fairly easy to manage with the process currently in place.

Based on historical usage, our analysis identified possible ways in which these fleets could be optimized and consolidated from 11 pools into just 5. The current values of each pool vehicle were researched using the National Automotive Dealers Association website and this was used to determine the salvage value savings that could be achieved from the sale of the excess vehicles. A personal mileage reimbursement calculator was used to determine the fixed annual cost avoidance of each vehicle type. The table below shows the breakdown of the cost savings related to pool fleet reductions.

ODPS Pool Fleet Cost Savings Reductions

	Count	Trade-In Value
Current Pool Vehicles	41	\$560,681
Disposals	12	\$88,487
Future Pool Vehicles	29	\$472,194
	Salvage Value Savings	\$88,487
	Annual Cost Avoidance	\$29,829

Sources: ODPS, NADA

Additionally, OPT performed a sample breakout showing further details about what a potential future pool could look like for ODPS.

Proposed ODPS Pool Fleets After Reductions

Future Pool	Equipment #	Miles	Value
Alum Creek Motor Pool	SP-0981	12,265	\$16,000
Alum Creek Motor Pool	SP-1277	16,599	\$18,527
Alum Creek Motor Pool	SP-1626	34,266	\$13,125
Alum Creek Motor Pool	SP-3282	55,914	\$8,775
Alum Creek Motor Pool	SP-5092	2,796	\$16,660
Dispose	SP-1592	50,991	\$5,500
Dispose	SP-1651	56,509	\$5,275
Alum Creek Motor Pool (Designated for Crime Lab)	SP-0243	7,370	\$16,405
Alum Creek Motor Pool (Designated for Crime Lab)	SP-1310	54,522	\$5,750
Alum Creek Motor Pool (Designated for Crime Lab)	SP-1441	97,117	\$3,875
Alum Creek Motor Pool (Designated for Crime Lab)	SP-1459	58,350	\$9,650
ShIPLEY Motor Pool	SP-0922	69,540	\$3,825
ShIPLEY Motor Pool	SP-1052	49,673	\$17,225
ShIPLEY Motor Pool	SP-5080	356	\$16,525
ShIPLEY Motor Pool	SP-5115	181	\$16,525
Dispose	SP-0451	49,990	\$10,275
Dispose	SP-0809	65,606	\$5,100
Dispose	SP-1571	51,293	\$5,750
Dispose	SP-4021	62,656	\$5,300
Dispose	SP-4028	51,024	\$9,975
ShIPLEY Motor Pool (Designated for Photo Lab)	SP-1226	25,464	\$11,775
Dispose	SP-1357	30,346	\$11,375
ShIPLEY Motor Pool (Designated for BMV Registrar)	SP-5088	14,199	\$24,500
Dispose	SP-5079	28,891	\$18,725
ShIPLEY Motor Pool (Designated for Facilities)	SP-0526	7,026	\$16,405
ShIPLEY Motor Pool (Designated for Facilities)	SP-0542	5,303	\$16,510
Admin/Director's Pool	SP-1463	82,933	\$22,625
Admin/Director's Pool	SP-4008	8,004	\$17,850
Admin/Director's Pool	SP-5061	11,051	\$14,875
Dispose	SP-1669	49,778	\$2,487
Dispose	SP-0698	89,868	\$3,400
Admin/Director's Pool	SP-4002	12,815	\$26,050
Dispose	SP-3051	93,325	\$5,325
ONIC North	SP-4501	4,510	\$19,767
ONIC North	SP-4504	2,465	\$19,882
ONIC North	SP-4506	2,172	\$19,882
ONIC South	SP-4505	5,929	\$19,678
ONIC South	SP-4500	1,436	\$19,882
ONIC South	SP-4502	438	\$19,882
ONIC South	SP-4503	676	\$19,882
ONIC South	SP-4507	1,145	\$19,882

Source: ODPS

Conclusion

ODPS does not use a daily pool fleet reservation system to track and maintain data on the daily utilization of its vehicles. As a result, it is operating with an excess of vehicles spread out in separate pools, often at the same locations. By consolidating the pool fleets and eliminating the 12 under-utilized pool vehicles, ODPS could achieve a one-time salvage value savings of \$88,487 and an annual fixed cost avoidance of \$29,829.

Recommendation 4.3: Enforce Two to Three Ratio Policy

ODPS has a policy that allows for two law enforcement vehicles for every three troopers at a post location and is currently operating beyond this ratio. ODPS should enforce the existing ODPS 300.01 policy limit of two vehicles for every three post troopers.

Impact

Bringing the number of vehicles in line with ODPS Policy 300.01 would result in the elimination of 84 Dodge Charger Police Protector (PP) vehicles from the existing fleet total (as of FYE 2020). This would result in first-year savings of \$1.2 million (including one-time salvage proceeds), and an annual cost avoidance of \$736,800 thereafter.

Background

The Department is operating beyond its policy of maintaining two vehicles for every three post troopers. It is the responsibility of district commanders or designees to assign enforcement vehicles to the posts based on operational necessity. As of July 30, 2020, ODPS had 860 post trooper positions, 10 of which are exempt from the count due to honorary awards or special designations, explained in ODPS Policy 300.01. As of June 30, 2020, OSHP posts maintained a total of 685 post trooper vehicles, which excludes those assigned to sergeant and lieutenant positions that are also exempted under the policy. This is a ratio of approximately 0.8 vehicles per trooper or about four vehicles to every five post troopers across all posts.

Methodology

We used vehicle inventory data to verify the number of vehicles assigned to post troopers relative to the ODPS 300.01 policy, which stipulates the following:

“Assignment of OSP vehicles will be assessed at least annually by ODPS Fleet Management to ensure that each district has sufficient vehicles assigned. The 2:3 ratio (two enforcement vehicles per every three post troopers) will be used in the assessment.”³⁹

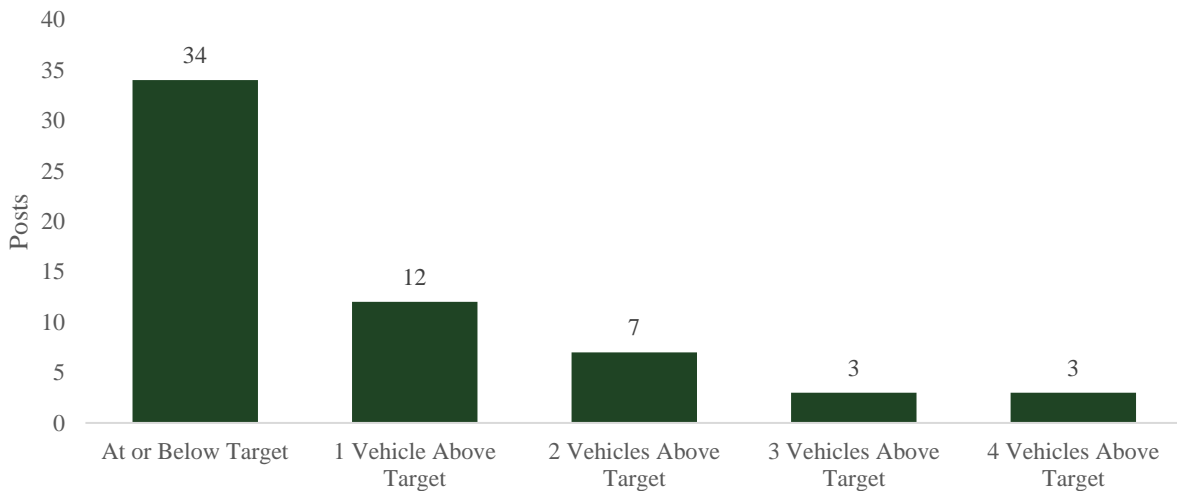
We determined the number of positions at each patrol post that would be exempt from the 2:3 ratio. Exempt positions include, but are not limited to, sergeants, lieutenants, canine handlers, and honorary designations such as current “District Trooper of the year” and current “Trooper of the Year” award recipients. Once the appropriate number of trooper positions subject to this 2:3 ratio policy was identified, we calculated the actual ratio of vehicles-to-troopers as of June 30, 2020, when our vehicle count was obtained from the Department. We looked at vehicle ratios on a per-post basis so that the right number of vehicles could be determined for each location.

³⁹ ODPS’s policy does not stipulate the awarding of an additional vehicle at each of the 59 posts to help offset downtime due to maintenance and/or special details such as escorting oversized loads.

Analysis

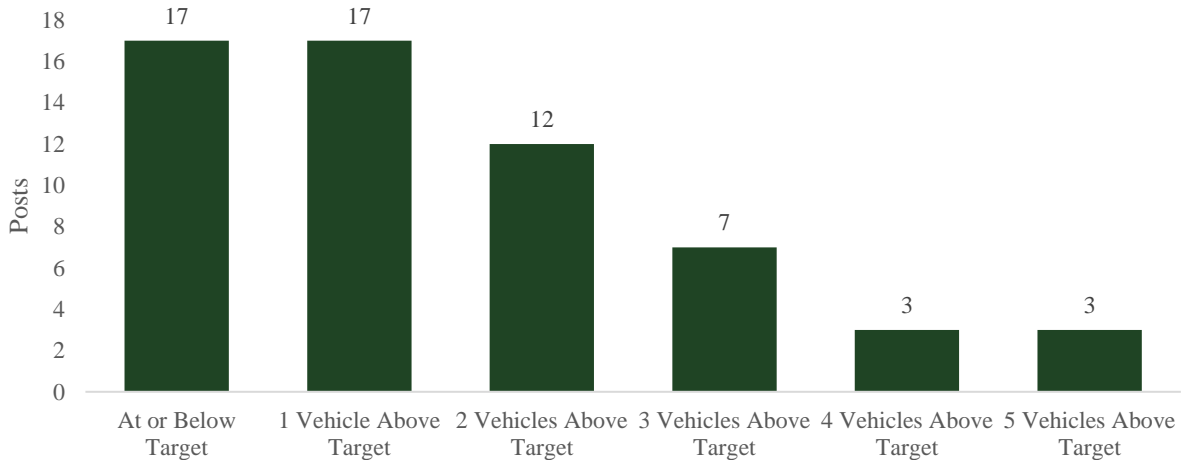
OPT determined OSHP is operating with 84 more Dodge Charger PP vehicles than the policy allows as of the vehicle count at FYE 2020. Based on authorized trooper positions, OSHP should maintain a total of 601 total vehicles. Even if one extra vehicle was allowed at each post for downtime due to maintenance and special assignments such as traffic details in construction zones, ODPS would still be operating with 25 vehicles beyond its 2:3 ratio. The charts below demonstrate how the number of enforcement vehicles at posts compares to the target number of vehicles that should be maintained at that post in order to ensure compliance with ODPS Policy 300.01.

Posts Above 2 to 3 Vehicle Ratio - with Extra Vehicle



Source: ODPS

Posts Above 2 to 3 Vehicle Ratio - No Extra Vehicle



Source: ODPS

The table below demonstrates the breakdown of savings associated with adherence to ODPS Policy 300.01:

Cost of Exceeding ODPS 300.01 Vehicle Ratio Policy

	Per Policy	With Extra Vehicle
Total Trooper Vehicles	685	685
Vehicles Needed at Ratio with Exclusions	601	660
Vehicles Above Threshold	84	25
Fixed Annual Cost of Charger	\$8,772	\$8,772
Annual Cost Avoidance	\$736,876	\$219,308
Average Salvage Price	\$4,972	\$4,972
One-Time Salvage	\$417,637	\$124,297
Total First-Year Savings	\$1,154,513	\$343,605
Subsequent Year Savings	\$736,876	\$219,308

Source: ODPS

The Patrol currently allows one extra cruiser per post to address potential downtime due to maintenance and/or special details such as escorting oversized loads; however, this practice is not outlined in the existing ODPS Policy 300.01. On the right-hand side of the table above, an extra vehicle for every post was integrated into the 2:3 ratio calculation to reflect the potential savings if each of the 59 posts were to carry one extra vehicle.

Conclusion

The Department is operating beyond its policy of two vehicles for every three post troopers. Each additional Dodge Charger PP maintained has an annual fixed cost of about \$8,772. ODPS should enforce the existing ODPS 300.01 policy limit of two vehicles for every three post troopers. Aligning with ODPS Policy 300.01 would result in the elimination of 84 Dodge Charger PP vehicles from the existing fleet total (as of FYE 2020) and result in a first-year savings of \$1.2 million (including one-time salvage proceeds), and an annual cost avoidance of \$736,800.

Even if one extra vehicle was allowed at each post for downtime due to maintenance and special assignments such as traffic details in construction zones, ODPS would still be operating with 25 excess vehicles. Eliminating those 25 vehicles would result in one-time salvage value recovery of \$124,300 and an annual fixed cost avoidance of \$219,300.

Recommendation 4.4: Civilian Take-Home Vehicles

The Department has 213 civilian employees with take-home vehicles. ODPS could save \$18,000 annually by shifting certain drivers to personal mileage reimbursement, or another vehicle type, at the mileage reimbursement rate of \$0.45 /mile⁴⁰. ODPS should right-size the number and type of civilian take-home vehicles.

Impact

Right-sizing the number and type of civilian take-home motor vehicles would have a financial impact of between \$17,000 to \$18,000, depending on the personal mileage reimbursement rate.

Background

ODPS determines when to assign someone a vehicle or pay personal mileage reimbursement based on the threshold determined by DAS. The Department allows employees to have take-home vehicles if certain conditions/criteria are met. Currently, out of the 213 civilian employees with take-home vehicles, there are three to five employees who do not drive enough annual miles to meet the personal mileage breakeven mileage threshold. The exact number of individuals not meeting the breakeven threshold depends on whether the specific personal mileage reimbursement is \$0.45 or \$0.52 per mile.⁴¹

Methodology

OPT examined policies and procedures governing the use and justification for take-home vehicles. ODPS 300.01 Policy states the following:

- "...Employee's regular work-related activities must require frequent business travel and the mileage traveled will exceed the DAS minimum number of annual business miles..."
Also,
- "An employee needs to be 'on-call' 24/7 to meet non-business hours emergency, security or public communications needs; or employee is required to use specialized equipment that cannot be attached to an employee's personal vehicle or would be impractical to transport in an employee's personal vehicle; or employee is required to travel to and from various work locations throughout the state"

OPT used data from OSHP and OAKS BI to analyze information about employees and take-home vehicles across all Divisions. We emailed surveys to individuals at the agency who have

⁴⁰ Office of Budget and Management lowered the rate to \$0.45/mile on April 20, 2020. It had previously been set at \$0.52/mile from July 1, 2019 to April 20, 2020.

⁴¹ The reimbursement rate at time of publication was \$0.45 per mile, the reimbursement rate was previously \$0.52 per mile; DAS may choose to restore the previous reimbursement rate in the future.

take-home vehicles. Based on those survey results, 25 employees were selected for further analysis.⁴²

OPT developed a calculator⁴³ to determine the personal mileage reimbursement threshold in relation to the number of miles driven by take-home vehicles. The calculator helped to determine when it makes more sense to pay someone mileage reimbursement for the use of their personal vehicle rather than assign them a state vehicle (or vice versa). We applied the calculator to the mileages driven by isolated individuals for further analysis with take-home vehicles. All elements of the impact of take-home vehicles were considered, including total mileage driven, extent of reporting, and designated work location.

Analysis

OPT calculated the personal mileage reimbursement threshold for the primary vehicle types operated by ODPS civilian employees with take-home vehicles. The personal mileage reimbursement threshold is a set number of miles driven by an employee at which it makes sense to assign a take-home vehicle rather than pay personal mileage reimbursement. We identified that there are some civilian employees with take-home vehicles who are not meeting the personal mileage reimbursement threshold required to justify the use of a take-home vehicle.

ODPS could save \$17,000 annually if the reimbursement rate is \$0.52 per mile and \$18,000 with the current reimbursement rate of \$0.45 per mile. The table on the following page is an example of personal mileage breakeven threshold calculator used in the analysis:

⁴² Using payroll data for the employees that use such vehicles, the proportion of work versus leave hours worked was calculated for FY 2017 to FY 2020. The average number of weeks worked for each of the 25 ODPS employees with take-home vehicles was calculated. Then, the number of days the employees reported to their work location weekly was multiplied by the average number of weeks worked to obtain the total number of days the employees reported to their ODPS work location. State-recognized holidays were subtracted out of the equation. Lastly, reported commute miles were multiplied by the number of days reporting to work to determine whether the breakeven mileage threshold was being reached or exceeded.

⁴³ Refer to DAS Fleet Management Performance Audit released in 2019 for breakdown of OPT breakeven analysis and development of personal mileage reimbursement calculator.

Personal Mileage Breakeven Threshold Calculator at \$0.45/mile – Midsize Sedan

Category	Amount
Annual Miles	14,456
Years Maintained	6.9
Lifetime Mileage	99,119
Maintenance CPM	\$0.043
Fuel CPM	\$0.0776
Cost of Personnel Downtime	\$0.0227
Total Annual Operating CPM	\$0.1432
Reimbursement CPM	\$0.45
Reimbursement Rate Minus Operating CPM	\$0.307
Accident Deductible CPM	\$0.000
RR Minus Operating & Accident Ded. CPM	\$0.307
Annual Variable Cost	\$2,070.09
Cost of Administrative Time	\$187
Fleet Management Fees	\$27
Annual Liability Insurance Cost	\$110
Annual Physical Damage Insurance Cost	\$0
Annual Parking Cost	\$0
Initial Vehicle Cost	\$16,018
Annual Cost of Financing	\$0
Salvage Credit	24.79%
Annual Fixed Cost	\$2,081.09
Breakeven	6,783

Source: ODPS, Ohio Department of Administrative Services, Ohio Office of Budget and Management

In the table above, we took into account all fixed and variable costs and determined the personal mileage reimbursement threshold. We divided the fixed costs of the vehicle by the remainder of the reimbursement rate per mile minus the total variable cost per mile. The calculator uses actual ODPS data and estimates the costs of personnel downtime ⁴⁴ to help calculate the personal mileage reimbursement breakeven threshold for this particular vehicle or class of vehicle.

The table on the following page shows estimated savings related to right-sizing the number of civilian take home vehicles.

⁴⁴ As shown in the Personal Mileage Breakeven Threshold Calculator at \$0.45/mile– Midsize Sedan

Savings from Rightsizing Civilian Take-Home Vehicles-\$0.45/mile

SP-Numbers	Potential Savings	Shift to Midsize Sedan⁴⁵
SP-5053	\$19	N/A
SP-3160	\$524	N/A
SP-4302	\$8,184	\$9,030
SP-5049	\$4,100	N/A
SP-5118	\$4,343	N/A
Total	\$17,171	\$18,017

Source: ODPS, OAKS Enterprise BI Cognos

Conclusion

ODPS should right-size the number and type of civilian take-home vehicles. This would save the Department approximately \$17,000 to \$18,000 annually on take-home vehicle costs. This will require a reduction of three to four take-home vehicles and a shift of one driver to a different vehicle type.

⁴⁵ There is one employee driving a more expensive vehicle with a high personal mileage breakeven threshold who should be shifted to a sedan unless the job warrants that certain vehicle.

Recommendation 4.5: Fleet Vehicle Replacement

ODPS does not have a policy in place to determine the optimal fleet cycling mileages of its vehicles, although it does have target replacement mileages that have recently been raised due to budget cutbacks. As a result of not linking its replacement target mileages to optimized levels based on total lifetime cost per mile (CPM), the Department is spending more per mile for vehicles than if they switched to optimized fleet cycling mileage targets. The Department should optimize fleet replacement cycles of police protector vehicles.

Impact

Implementing the optimized fleet cycling mileages for police protector vehicles outlined in this audit would save ODPS approximately \$431,000 relative to its average replacement mileage between FY 2017 and FY 2020, and about \$1.1 million relative to their current target mileages for certain ⁴⁶ police protector vehicles.

Background

The Department does not use its available FleetOhio data to determine an optimized fleet cycling mileage target. Between FY 2017 and FY 2020, ODPS cycled out some of its most common vehicles, so a total lifecycle CPM could be calculated. The cost of the Police Protector vehicles are much higher because of the additional upfitting costs of equipping those vehicles with law enforcement equipment. The following list displays the average lifetime CPM for the Department's police protector vehicles:

- Dodge Charger PP: 111,774 miles = \$0.384
- Ford Explorer PP: 119,941 miles = \$0.422
- Chevy Tahoe PP: 147,835 miles = \$0.323

In April of 2019, ODPS adjusted the target annual usage of its primary police protector vehicles to the following mileages, which results in the corresponding projected CPM based on historical performance of vehicles maintained to those mileage intervals:

- Dodge Charger PP: 125,000 miles = \$0.418
- Ford Explorer PP: 150,000 miles = \$0.429
- Chevy Tahoe PP: 200,000 miles = \$0.296

Methodology

OPT collected FleetOhio data from DAS relative to ODPS fleet vehicles between FYE 2017 and FYE 2020. We then used various costs related to purchase, salvage, usage, and other lifetime costs to calculate a lifetime CPM. This was done after isolating and removing from the

⁴⁶ There were not enough data points for Ford Explorer PPs to allow for the determination of optimized mileage targets. Therefore, only Charger PPs and Tahoe PPs are integrated into the cost-saving projection.

calculation of averages any data pertaining to vehicle identification numbers (VIN) that had a least one impossible data point (See **R4.1**).

Analysis

Using fleet data from the aforementioned fiscal years, we calculated the average operating CPM, residual CPM, and total CPM for each year of life for each class of vehicle, and some of the most prevalent ODPS vehicles. We then calculated the cost of up fitting for the two most common police protector vehicles, including parts and labor. OAKS BI data was used to determine the labor costs. Lastly, we calculated the exact mileage at which it was the least expensive to operate a vehicle and the point at which that vehicle should be replaced based on historical averages.

The following table displays the savings resulting from the CPM difference between cycling out the police protector vehicle types at the optimal target replacement mileage rather than the target mileages determined by ODPS:

Projected Savings of Police Protector Vehicles at Optimized Cycling Targets vs. Current Target Mileages

	Charger PP	Tahoe PP
Current Lifetime Usage (2017-2020)	111,774	147,835
Optimized Usage	117,310	154,081
Current Target Usage	125,000	200,000
CPM-Optimized to Target Usage	\$0.418	\$0.296
Optimized Total CPM	\$0.375	\$0.279
Difference	\$0.043	\$0.018
Average Annual Usage (2017-2020)	22,710	22,630
Savings per Vehicle	\$976	\$399
FYE 2020 Count of Vehicle Type	1,022	221
Total Annual Savings	\$997,901	\$88,122
	Combined Savings	\$1,086,023

Source: DAS

As illustrated, ODPS is spending more per mile for vehicles than if they switched to optimized fleet cycling mileage targets. This overspending results from the Department not having a policy in place to determine the optimal fleet cycling mileage.

Conclusion

ODPS is spending more per mile for vehicles than if they switched to optimized fleet cycling mileage targets. The Department would save \$431,000 annually by switching police protector vehicles to the optimized fleet cycling mileages from their practice over the past four years. There would be cost savings of about \$1.1 million by switching to the optimized mileages instead of using the current target mileages

Issue for Further Study 3: Use of Take Home Vehicles

ODPS should review the use of take-home vehicles by State Troopers. To complete this review, the Department should consider enhancing the collection of dispatch data to include a notation of the location of the first and last stop of the day for each trooper with a take-home vehicle, as well as how frequently troopers respond to incidents outside of their normal shift hours. This data, once compiled, can be used to conduct further analysis regarding the cost effectiveness of the policy.

Several states do not allow take home vehicles for their State Patrol or State Police employees. According to a study published by the Bureau of Justice Statistics in 2012, 8 of the 47 state police agencies that responded to the survey did not allow vehicles to be taken home.⁴⁷ ODPS does not actively monitor the cost of officer take-home vehicles. According to ODPS management, a study of this was done at one time long ago, but no such study could be located.

During the course of the audit, OSHP indicated that it could begin tracking this information for future review.

⁴⁷ The study, *Hiring and Retention of State and Local Law Enforcement Officers, 2008 -- Statistical Tables*, was published in 2012 and included information from a survey conducted in 2008. 47 out of 50 state police agencies responded to the survey request.

Client Response Letter

Audit standards and AOS policy allow clients to provide a written response to an audit. The letter on the following page is the Department's official statement in regards to this performance audit. Throughout the audit process, staff met with ODPS officials to ensure substantial agreement on the factual information presented in the report. When the Department disagreed with information contained in the report, and provided supporting documentation, revisions were made to the audit report.



**Department of
Public Safety**

Mike DeWine, Governor
Jon Husted, Lt. Governor

Thomas J. Stickrath, Director

June 16, 2021

Keith Faber, Ohio Auditor of State
Office of Auditor of State
88 East Broad Street, 5th Floor
Columbus, OH 43215

Dear Auditor Faber,

Pursuant to the completion of the 2019 performance audit conducted by your office, I'd like to personally thank you and your team for the level of professionalism that was extended to my staff during the audit. We found the audit team managed by Betsy Bashore and Aaron Shaw to be courteous and respectful of our time and needs.

It was helpful to have an "outside" set of eyes on our operations, and while we disagree with some of the assumptions and recommendations, we find many of the recommendations issued by your team to be both applicable and useful. In fact, we have already begun to implement a number of the recommendations since the engagement, such as implementing flex schedules for IT staff to reduce overtime cost. It is our hope that once implemented, the applicable audit recommendations will increase efficiency and reduce costs.

If you have any additional questions or concerns regarding the performance audit, feel free to contact me directly.

Sincerely,

Thomas J. Stickrath
Director

Appendix A: Purpose, Methodology, Scope, and Objectives of the Audit

Performance Audit Purpose and Overview

Performance audits provide objective analysis to assist management and those charged with governance and oversight to improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee or initiate corrective action, and contribute to public accountability.

Generally accepted government auditing standards (GAGAS) require that a performance audit be planned and performed so as to obtain sufficient, appropriate evidence to provide a reasonable basis for findings and conclusions based on audit objectives. Objectives are what the audit is intended to accomplish and can be thought of as questions about the program that the auditors seek to answer based on evidence obtained and assessed against criteria.

We conducted this performance audit in accordance with GAGAS. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

Audit Scope and Objectives

In order to provide ODPS with appropriate, data driven, recommendations, the following questions were assessed within each of the agreed upon scope areas:

Summary of Objectives and Conclusions

Objective	Recommendation
What opportunities exist to improve the efficiency and effectiveness of DPS staffing and associated span of control?	
Staffing by division and function	Recommendation 1.1 and Issue For Further Study 1
Span of Control	Recommendation 1.1
Use of contractors, particularly in IT functions	Recommendation 3.2 and Recommendation 3.3
Centralized and decentralized support and back-office positions	Recommendation 1.1
What opportunities exist to improve the efficiency and effectiveness of DPS Bureau of Motor Vehicles?	
Current operating model and options based on models used in other states or changes to current model based on business practices,	Recommendation 2.3
Cost and benefit of automated systems related to renewals, and	Recommendation 2.1
Options to decrease expenditures or increase revenues, which may include a review of fees and operations.	Recommendation 2.2 and Issue for Further Study 2
What opportunities exist to improve the efficiency and effectiveness of DPS IT?	
IT project governance, through the project lifecycle, including a review of the process of project development and approval	Recommendation 3.1
IT replacement cycles and inventory management, and	Recommendation 3.4
Software licensing and license management	Recommendation 3.5
What opportunities exist to improve the efficiency and effectiveness of DPS fleet?	
Fleet Utilization,	Recommendation 4.1
Vehicle Assignments,	Recommendation 4.2 and Issue for Further Study 3
Fleet Lifecycle,	Recommendation 4.3
Vehicle Pools and Pooling Practices, and	Recommendation 4.4
Maintenance Practices	Recommendation 4.5 and Recommendation 4.6

Although assessment of internal controls was not specifically an objective of this performance audit, internal controls were considered and evaluated when applicable to scope areas and

objectives. The following internal control components and underlying principles were relevant to our audit objectives⁴⁸:

- Control environment
 - We assessed the Department’s exercise of oversight responsibilities in regards to detecting improper payroll reporting and benefits administration.
 - We assessed the Department’s exercise of oversight responsibilities in regards to detecting improper data entry in the dispatch system and fleet management information system.
- Risk Assessment
 - We considered the Department’s activities to assess fraud risks.
- Information and Communication
 - We considered the Department’s use of quality information in relation to its financial, payroll, staffing, and fleet data.
- Control Activities
 - We considered the Department’s compliance with applicable laws and contracts.

Internal control deficiencies that were identified during the course of the audit are discussed in the corresponding recommendation.

Audit Methodology

To complete this performance audit, auditors gathered data, conducted interviews with numerous individuals associated with the areas of ODPS operations included in the audit scope, and reviewed and assessed available information. Assessments were performed using criteria from a number of sources, including:

- Peer Agencies;
- Industry Standards;
- Leading Practices;
- Statutes; and
- Policies and Procedures.

Where needed, we selected states similar in population and other demographics to form the peer group for comparisons contained in this report. These peers are identified as necessary and appropriate within the section where they were used.

⁴⁸ We relied upon standards for internal controls obtained from *Standards for Internal Control in the Federal Government* (2014), the U.S. Government Accountability Office, report GAO-14-704G

Appendix B: Additional Tables and Charts

BMV Revenues and Expenditures

When OPT examined the funds that affected the overall revenues and expenditures for the BMV, we found that the majority of revenues (83.0 percent - 87.1 percent) came from three funds (5TM0, 7051, and 7099); which also recorded the majority of expenditures (78.7 percent - 82.4 percent).

The following tables show revenues and expenditures for the seven largest funds, from most recent (2020) to 2018

ODPS 2020 Revenues, Top 7 Funds

ODPS Total	All Funds	\$1,163,487,559	
BMV Total	All Funds	998,225,817	85.8%
Public Safety - Highway Purpose	5TM0	\$446,567,346	38.4%
Auto Registration Distribution	7051	\$309,339,177	26.6%
Local Motor Vehicle License Tax	7099	\$209,973,378	18.0%
Disaster Relief	3370	\$42,263,330	3.6%
Traffic Safety	3GV0	\$18,529,407	1.6%
International Registration Plan Distribution	7050	\$17,849,979	1.5%
Justice Emergency Support Funding	3HT0	\$15,954,497	1.4%
Remaining Funds		\$103,010,446	8.9%
		Top 3 Funds	83.0%

Source: ODPS and OAKS

2020 Expenditures with Top 7 Funds

ODPS Total	All Funds	\$1,233,644,204	
BMV Total	All Funds	\$123,495,245	10.0%
Public Safety - Highway Purpose	5TM0	\$466,770,397	37.8%
Auto Registration Distribution	7051	\$300,336,611	24.3%
Local Motor Vehicle License Tax	7099	\$204,222,806	16.6%
Disaster Relief	3370	\$41,772,117	3.4%
Coronavirus Relief-ODPS	5CV1	\$32,896,631	2.7%
General Fund	GRF	\$27,666,362	2.2%
International Registration Plan Distribution	7050	\$18,700,913	1.5%
Remaining Funds		\$141,278,366	11.5%
		Top 3 Funds	78.7%

Source: ODPS and OAKS

2019 Revenues with Top 7 Funds

ODPS Total	All Funds	\$1,181,862,943	
BMV Total	All Funds	\$1,027,620,375	86.9%
Public Safety - Highway Purpose	5TM0	\$468,508,933	39.6%
Auto Registration Distribution	7051	\$329,437,559	27.9%
Local Motor Vehicle License Tax	7099	\$199,531,590	16.9%
Disaster Relief	3370	\$26,227,629	2.2%
Personnel Administration - Subdivisions	3390	\$20,254,510	1.7%
Traffic Safety	3GV0	\$17,837,012	1.5%
Highway Safety Federal Reimbursement	3GU0	\$13,487,856	1.1%
Remaining Funds		\$106,577,855	9.0%
		Top 3 Funds	84.4%

Source: ODPS and OAKS

2019 Expenditures with Top 7 Funds

ODPS Total	All Funds	\$1,216,799,453	
BMV Total	All Funds	\$125,437,086	10.3%
Public Safety - Highway Purpose	5TM0	\$470,339,691	38.7%
Auto Registration Distribution	7051	\$333,114,714	27.4%
LOC Motor Vehicle License Tax	7099	\$198,654,580	16.3%
General Fund	3370	\$26,255,761	2.2%
Personnel Administration - Subdivisions	GRF	\$21,635,699	1.8%
International Registration Plan Distribution	3390	\$20,185,845	1.7%
Traffic Safety	3GV0	\$18,253,562	1.5%
Remaining Funds		\$128,359,601	10.5%
		Top 3 Funds	82.4%

Source: ODPS and OAKS

2018 Revenues with Top 7 Funds

ODPS Total	All Funds	\$1,110,200,787	
BMV Total	All Funds	\$1,002,021,455	90.3%
Public Safety - Highway Purpose	5TM0	\$457,024,632	41.2%
Auto Registration Distribution	7051	\$327,034,472	29.5%
LOC Motor Vehicle License Tax	7099	\$182,079,438	16.4%
International Registration Plan Distribution	7050	\$19,627,471	1.8%
Traffic Safety	3GV0	\$15,993,240	1.4%
Personnel Administration - Subdivisions	3390	\$15,793,564	1.4%
Highway Safety Federal Reimbursement	3GU0	\$13,706,447	1.2%
Remaining Funds		\$78,941,525	7.1%
		Top 3 Funds	87.1%

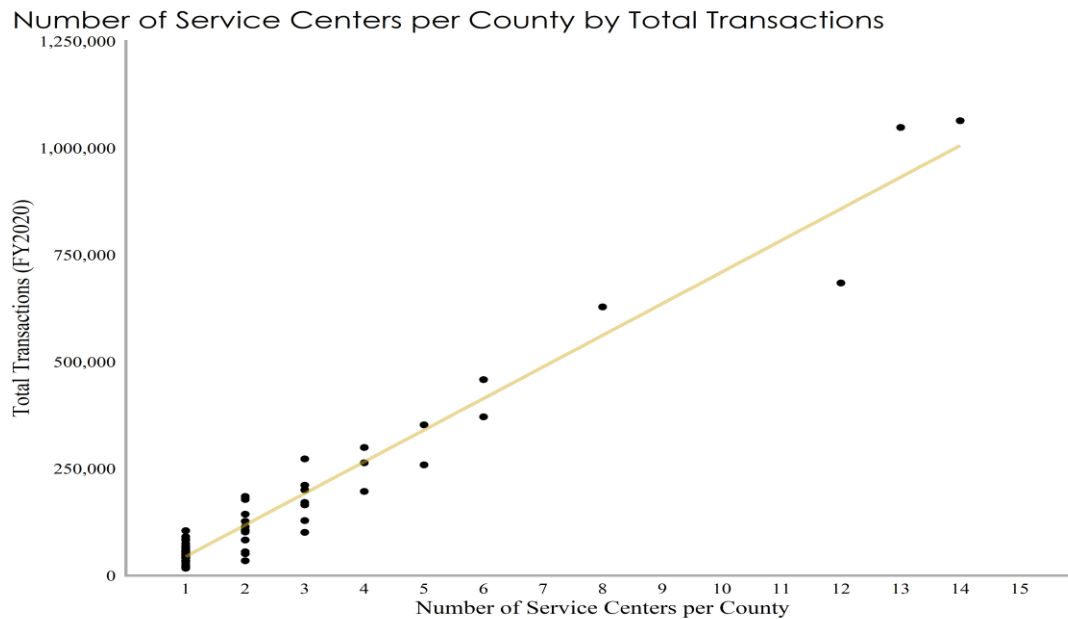
Source: ODPS and OAKS

2018 Expenditures with Top 7 Funds

ODPS Total	All Funds	\$1,145,054,834	
BMV Total	All Funds	\$123,852,671	10.8%
Public Safety - Highway Purpose	5TM0	\$434,782,324	38.0%
Auto Registration Distribution	7051	\$326,790,821	28.5%
LOC Motor Vehicle License Tax	7099	\$181,739,737	15.9%
General Fund	GRF	\$19,581,978	1.7%
Personnel Administration - Subdivisions	3390	\$16,055,073	1.4%
International Registration Plan Distribution	7050	\$16,035,624	1.4%
Traffic Safety	3GV0	\$16,022,036	1.4%
Remaining Funds		\$134,047,241	11.7%
		Top 3 Funds	82.4%

Source: ODPS and OAKS

Service Centers per County Compared with Total number of Transactions



Public vs Private BMV Ownership Analysis

Our analysis of public versus private operations of in-person BMV services showed that the state will save approximately \$25 million dollars in annual savings by continuing to use Deputy Registrar locations.

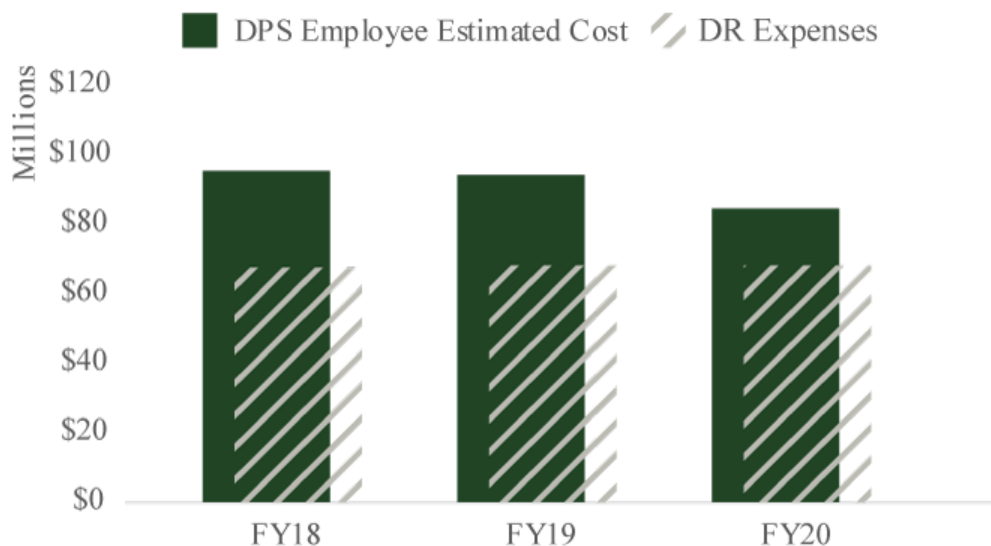
Using a published Ohio Department of Public Safety Request for Proposal document, OPT was able to determine the number of ODPS recommended weekly labor hours. Because recommended labor hours are based on the projected annual transactions of each agency, OPT was able to determine the estimated annual labor hours required to operate each BMV. We then multiplied the ODPS employee equivalent hourly rate (\$43.34) by the estimated annual labor hours of each agency to find the labor cost of each agency, this figure was totaled for FY20, FY19, and FY18. These figures were then compared to the fees withheld by DRs. The following graph is the result of this analysis.

DR vs ODPS Employee Estimated Cost

	FY18	FY19	FY20
ODPS Employee Estimated Cost	\$95,376,000	\$94,553,000	\$84,925,000
DR Expenses	\$67,988,000	\$68,194,000	\$68,387,000

Source: ODPS and OAKS

DR vs ODPS Employee Estimated Cost



Source: ODPS and OAKS

For each FY we examined, the estimated cost of running the BMV through the public sector (ODPS) was considerably greater than the cost ODPS assumes by allowing Deputy Registrars to withhold fees.

Staffing Span of Control Reductions by Position

Span of Control Staffing Comparison

	Reductions Needed to Align With Executive Level Comparison	Reductions Needed to Align with Blended Level Comparison	Financial Savings Associated with Aligning With Executive Level Comparison	Financial Savings Associated with Aligning With Blended Level Comparison
Administrative Positions	15	19	\$1,165,570	\$1,521,422
IT Related Positions	3	9	\$178,189	\$842,044
Customer Service	0	0	\$0	\$0
Highway Patrol Officers	10	26	\$930,234	\$2,623,085
Human Resources Positions	0	2	\$0	\$252,473
Lab Related Positons	2	3	\$254,842	\$396,044
Finance Related Positions	2	5	\$119,232	\$440,980
Director Related Positions	0	0	\$0	\$0
Miscellaneous Positions	1	1	\$25,901	\$25,901
Districts (Locations)	5	5	\$624,840	\$624,840
District Headquarters	3	3	\$412,890	\$412,890
Posts	0	0	\$0	\$0
Dispatch Centers	1	1	\$89,046	\$89,046
Criminal Patrol	0	0	\$0	\$0
Commercial Enforcement	0	0	\$0	\$0
District Investigation	2	2	\$216,382	\$216,382
Total Reductions	44	76	\$4,017,127	\$7,445,107

Source: DPS

OHIO AUDITOR OF STATE KEITH FABER



OHIO DEPARTMENT OF PUBLIC SAFETY

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 6/29/2021

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