



Structural Review and Recommendations Related to the State's Banking Architecture

Office of the State Treasurer, Delaware
and the Cash Management Policy Board

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Executive Summary



Introduction

Introduction

- The State of Delaware makes extensive use of banking services to collect, disburse and manage its cash and investments. The State has primary cash management relationships with PNC Bank, Citizens Bank and Bank of New York Mellon. Additional services are provided by 6 other financial institutions.
- PFM Asset Management LLC (“PFM”) was engaged by the State to work with the Office of the State Treasurer (“OST”) and the Banking Structure Task Force to review the State of Delaware’s existing framework and recommend a course of action to achieve the most efficient architecture.
- The scope of the review covered a broad range of issues and was designed to answer the following fundamental questions:
 - Is there a more efficient or effective framework to achieve the State’s cash management and banking objectives?
 - Are there recommended structural changes on how OST manages and oversees its cash management and banking relationships?
 - What is the best approach to implement the recommended changes?
 - What banking services are considered best practices and should be used to improve the security and control of funds?
 - Does the State’s collateralization policies for bank deposits balance the State’s needs to safeguard public monies, while allowing banks reasonable flexibility in managing and posting collateral?
 - Is the State obtaining good value from its banking partners for the fees paid?
 - What is the potential benefit of a competitive procurement of banking services?
 - What specialized cash management needs does the State have and what is the best way to communicate these needs in the banking services RFP?



Scope of Project

Introduction

- The PFM team has prepared this report after reviewing and analyzing the State's current practices. This review included:
 - Reviewing the existing account structure, cash handling procedures, investment accounting, account reconciliation, and use of bank services,
 - Analyzing historical account analysis statements,
 - Meeting with the State and representatives of the various State agencies to discuss their use of banking services,
 - Documenting the banking services used by the State agencies,
 - Preparing a detailed quantitative assessment of fees paid to the financial institutions that are currently providing banking services to the State.
- This report is divided into 6 major sections:
 - **Section 1: Review of the State's Banking Relationships:** This section provides a high-level summary of the current service providers, number of accounts, relationships by State agencies, services used and fees paid.
 - **Section 2: Strategic Organizational Recommendations:** This section identifies the strategic organizational issues identified by PFM.
 - **Section 3: Structural & Rebidding Recommendations:** This section recommends changes to the structure of the State's banking relationships and a realignment of services across banking partners. This section also includes a framework for rebidding banking services.
 - **Section 4: Operational Enhancement Recommendations:** This section provides an assessment of key cash management practices and includes operational enhancements that PFM recommends.
 - **Section 5: Analysis of Current Fees:** PFM reviewed the fees charged by the State's current banking partners and compared the pricing to two databases of bank pricing. An estimate of potential fee savings is provided.
 - **Section 6: Review of State Agencies:** This section summarizes the cash management practices of most, but not all, of the State agencies. Information about current use of services was an important input into PFM's Strategic Organizational and Operational Enhancement recommendations.



Executive Summary



Executive Summary

Issues Reviewed	PFM's Recommendation
<ul style="list-style-type: none">• Overall Assessment	<ul style="list-style-type: none">• In our opinion, the State's banking and cash management operations are meeting the State's cash management needs reasonably well, but there are gaps. Areas of concern include:<ul style="list-style-type: none">• New technology has not been fully implemented• Communication and sharing of information with agencies is limited• Services are not uniformly used• Standard fraud protection tools have not been fully employed• Some aspects of the current structure are inefficient• Fees are above current market costs• During our discovery meetings, PFM identified a number of areas where we are recommending minor improvements, but we did not identify any major structural flaw or deficiency.
<ul style="list-style-type: none">• Role of OST and Centralization of Banking Services <p><i>See Section 2: Strategic Organizational Recommendations – Centralization vs Decentralization of Services, Role of OST and Centralization of Banking Services</i></p>	<ul style="list-style-type: none">• An important question the Cash Management Board needs to address is what role OST should play in assisting the State agencies with their collection and disbursement processes.• PFM believes that the current mix of some centralized functions and some decentralized services is creating gaps in service and is making it more difficult to manage the risks associated with the cash management function. We believe that further centralization of the banking function would be advantageous to the State.• OST personnel currently responsible for managing the State's banking resources are stretched thin. We believe that more resources are needed for OST to fully manage and control the State's use of banking services. Without additional resources, it will be difficult to successfully implement some of the best practice recommendations in this report. In our opinion, the investment of additional resources could lead to significant improvements in operational efficiency and reduced risk.



Executive Summary

Issues Reviewed	PFM's Recommendation
<ul style="list-style-type: none">• Allocation of Banking Costs to Agencies <i>See Section 2: Strategic Organizational Recommendations - Allocation of Banking Costs to Departments</i>	<ul style="list-style-type: none">• OST is paying the majority of the State's banking services. Few charges are allocated to the users of the services.• At minimum, we recommend that OST conduct regular reviews of banking charges with the State agencies to determine if cost savings opportunities are available.
<ul style="list-style-type: none">• Bank Relationship Management <i>See Section 2: Strategic Organizational Recommendations – Bank Relationship Management</i>	<ul style="list-style-type: none">• Overall, OST and State agencies indicate that they receive a satisfactory level of service from day-to-day customer service representatives and the relationship management teams of the State's banking partners.• PFM recommends that OST establish regular, periodic communication with its banking partners and invite users from the various State agencies to attend.
<ul style="list-style-type: none">• Vendor Risk & Contract Management <i>See Section 2: Strategic Organizational Recommendations – Vendor Risk Management and Management of Outside Contracts</i>	<ul style="list-style-type: none">• PFM recommends establishing a quarterly review of its banking partners to review financial strength and stability. This includes a review of their financial condition, credit ratings and recent news or financial events.• PFM recommends restricting the ability for agencies to enter into separate contracts. Through the upcoming RFP process, the State will be entering into contracts that will make available sufficient services to the agencies it serves, such as general banking services, lockbox, armored car, remote cash safes, etc. Once these contracts and pricing are established, agencies should be required to use services under the existing State contracts.
<ul style="list-style-type: none">• Online Web Reporting & Access <i>See Section 2: Strategic Organizational Recommendations – Online Web Reporting</i>	<ul style="list-style-type: none">• Access to the banks' online platforms was a common theme during PFM's discovery meetings with State agencies. Agencies and OST noted that it is difficult to track users and permissions as employees change positions or leave the State. The use of a sub-administrator hierarchy may reduce the administrative burden on OST staff.



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Issues Reviewed	PFM's Recommendation
<ul style="list-style-type: none">• Recommended State Bank Structure <i>See Section 3: Structural and Rebidding Recommendations</i>	<ul style="list-style-type: none">• PFM recommends that the State consolidate banking relationships to two primary banks, with additional prequalified local banks to meet branch banking needs that can not be met by a primary bank.• The State has separate relationships for purchasing cards, merchant card processing, stored value cards and ATMs. These services can be provided by different providers without creating operational challenges.
<ul style="list-style-type: none">• Rebidding Banking Services <i>See Section 3: Structural and Rebidding Recommendations</i>	<ul style="list-style-type: none">• After the State's banking services are rebid in 2017 - 2018 with new contracts starting on January 1, 2019, we recommend a staggered approach to rebidding banking services in the future.• A proposed timeline is provided in this report.
<ul style="list-style-type: none">• Physical Deposit Needs <i>See Section 4: Operational Enhancement Recommendations – Physical Branch Needs, Remote Deposit Capture, and Armored Car Services / Remote Cash Safes</i>	<ul style="list-style-type: none">• We recommend the State consider the use of services - such as armored car, remote deposit capture, and remote cash safes - to reduce the State's reliance on employees making deposits at local branches.• The proposed Banking Service Structure recognizes the continued need of State agencies to make branch deposits. The approach outlined should offer geographic diversity of branches, while creating a structure that can be more effectively and efficiently managed by OST.



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Issues Reviewed	PFM's Recommendation
<ul style="list-style-type: none">• Lockboxes <i>See Section 4: Operational Enhancement Recommendations – Lockbox</i>	<ul style="list-style-type: none">• The State has lockboxes at three different providers. While the State is receiving fairly competitive pricing from each provider, there is room for savings and improvement. PFM recommends consolidating the three physical lockboxes and Division of Revenue's electronic lockbox (eLockbox) with a single provider to achieve the most competitive pricing and efficiencies.
<ul style="list-style-type: none">• Fraud Prevention Services <i>See Section 4: Operational Enhancement Recommendations – Disbursements – Agency Check Disbursements, Positive Pay, Payee Positive Pay, and ACH Fraud Control</i>	<ul style="list-style-type: none">• Only a few of the accounts used by the agencies are set up with standard fraud prevention services, such as positive pay, payee positive pay, or ACH debit block / filters.• These are important fraud prevention tools and are considered best practices by the GFOA¹. The State should consider adding appropriate fraud control services to all State accounts..
<ul style="list-style-type: none">• Merchant Card Processing / PCI Compliance / Payment Gateways <i>See Section 4: Operational Enhancement Recommendations – Merchant Card Processing</i>	<ul style="list-style-type: none">• Many State agencies expressed a need for greater assistance and support from OST with merchant card processing issues. A centralized resource for merchant card related topics could be beneficial for the State in a number of key areas including PCI compliance, interchange fee management, and the ability to leverage the flexibility of Govolution to improve the interactions between State agencies and constituents.
<ul style="list-style-type: none">• Technology & Systems <i>See Section 4: Operational Enhancement Recommendations – ERP / Internal Systems, DTI / Data Security, and File Transfers / Standardization of Files</i>	<ul style="list-style-type: none">• The Department of Technology and Information (DTI) is an important and valuable resource for the agencies. Because of the complexity of managing online payment processes and many technical challenges, PFM recommends that DTI continue to work with OST to support the merchant card collections and PCI compliance.

¹ GFOA Best Practices for Bank Account Fraud Prevention - http://204.12.67.77/sites/default/files/TIM_BANK_ACCOUNT_FRAUD_PREVENTION_0.pdf



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Issues Reviewed	PFM's Recommendation
<ul style="list-style-type: none">• Bank Balances & Collateralization <i>See Section 4: Operational Enhancement Recommendations – Cash Concentration of Funds, and Collateralization of Deposits</i>	<ul style="list-style-type: none">• OST is closely monitoring the cash position of the State and using a money market mutual fund to invest the majority of liquid balances. In order to compute the daily cash position, OST employees must retrieve information from multiple banks. PFM proposes that OST concentrate their cash positioning accounts at a single bank to allow for a simpler daily cash positioning process and reduce the risk of daylight or end-of-day overdrafts.• PFM recommends that OST eliminate inconsistencies in the methodology and approach to collateralizing deposit balances. During this process, the Cash Management Board should be asked to consider expanding the type of collateral that banks may pledge to allow the use of high quality municipal obligations issued by the State of Delaware and its political subdivisions, and Federal Home Loan Bank (FHLB) Letters of Credit (LOCs).
<ul style="list-style-type: none">• Purchasing Cards / Single Use Accounts <i>See Section 4: Operational Enhancement Recommendations – Purchasing Card Program</i>	<ul style="list-style-type: none">• The State has a robust purchasing card program. In 2016, the State spent approximately \$121.5 million, which generated a rebate of over \$2.13 million. While the rebate schedule is quite competitive, there is room for improvement in the large-ticket rebate schedule. PFM recommends that the State attempt to negotiate a higher rebate for the large-ticket items.
<ul style="list-style-type: none">• Potential Fee Savings <i>See Section 5: Analysis of Current Fees</i>	<ul style="list-style-type: none">• In recent years, banking services have been largely commoditized because of advances in technology. Banks have also become more aggressive with pricing to remain competitive.• The State's current fees for banking services are fairly competitive. However, we believe that significant cost savings will be achieved when the services are rebid. PFM estimates that OST could achieve annual savings ranging from \$105,213 to \$628,110 (8.7% - 52.0%)



Section 1: Review of the State's Banking Relationships



Section 1: Review of the State's Banking Relationships

Introduction

- Section 1 includes a high-level overview of the State's banking relationships summarizing:
 - Current service providers
 - Number of accounts with each provider
 - Annual relationship fees
 - Services used with each financial institution
 - Financial institutions used by Department
 - Services used by Department



Vendors & Services Used

Vendor	Services Used
Bank of America	<ul style="list-style-type: none"> • Merchant Card Processing
BNY Mellon	<ul style="list-style-type: none"> • Electronic Deposits & Disbursements • Lockbox (Pension) • eLockbox (Division of Revenue) • Remote Deposit Capture • Image Cash Letter • Wire Transfers • ACH Collections
Citizens Bank	<ul style="list-style-type: none"> • Physical Deposits • Remote Deposit Capture • Check Disbursements • Wire Transfers • ACH Collections
Dunbar	<ul style="list-style-type: none"> • Armored Car Provider (Division of Revenue, Division of Motor Vehicles)
FIS	<ul style="list-style-type: none"> • Prepaid Cards (Division of Child Support Services)
JP Morgan Chase	<ul style="list-style-type: none"> • Lockbox (Division of Corporations) • ACH Collections & Disbursements • Receivables Edge • Purchasing Cards / Single Use Account
KeyBank	<ul style="list-style-type: none"> • Prepaid Cards
M&T Bank	<ul style="list-style-type: none"> • Physical Deposits • ACH Collections & Disbursements • Check Disbursements • Currency Furnished • Vault Deposits • Remote Deposit Capture • Wire Transfers
PNC Bank	<ul style="list-style-type: none"> • Physical Deposits • Checks Paid, including Controlled Disbursement • ACH Collections & Disbursements • Image Cash Letter • Lockbox (Division of Unemployment) • Wire Transfers
Wilmington Savings Fund Society	<ul style="list-style-type: none"> • ATMs



Number of Accounts by Department ¹	BNY Mellon	Citizens Bank	JP Morgan Chase	M&T Bank	PNC Bank
(01) Legislative Branch					5
(02) Judicial Branch / Courts & Administrative Office of the Courts		3		5	23
(10) Executive Branch	2				8
(11) Department of Technology & Information					1
(12) State Elected Officials / Office of the State Treasurer	2	1		1	4
(15) Department of Justice					2
(20) Department of State	1		1		1
(25) Department of Finance	2				9
(35) Department of Health & Social Services					53
(37) Department of Children, Youth & Families					8
(38) Department of Correction					20
(40) Department of Natural Resources & Environmental Conservation					5
(45) Department of Safety & Homeland Security					6
(55) Department of Transportation				8	2
(60) Department of Labor		1			16
(65) Department of Agriculture					
(70) Elections					3
(75) Fire Prevention Commission					3
(76) National Guard					5
(77) Exceptional Citizens					
(90) Department of Higher Education					10
(95) Department of Education (School Districts & Charter Schools)		1		5	62
Unassigned					8
Total Accounts (287)	7	6	1	19	254

¹ FIS, KeyBank, and WSFS relationships have no bank accounts.



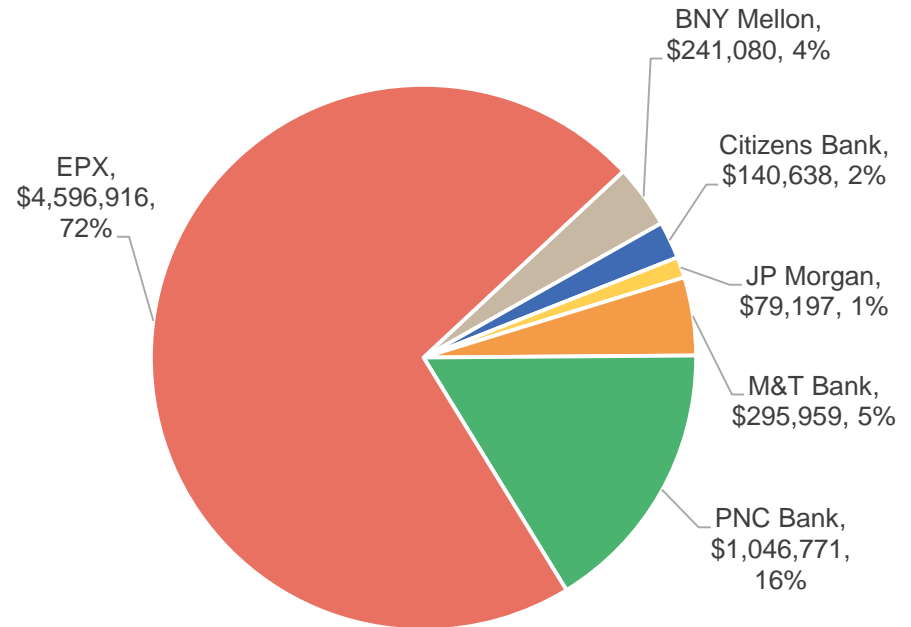
Services used by Department	Branch Deposits	Vault Deposits	RDC / ICL	Check Disbursements	ACH Disbursements*	Lockbox/ eLockbox
(01) Legislative Branch				✓		
(02) Judicial Branch / Courts & Administrative Office of the Courts	✓ ✓ ✓			✓ ✓ ✓		
(10) Executive Branch	✓			✓	✓	✓
(11) Department of Technology & Information						
(12) State Elected Officials / Office of the State Treasurer	✓	✓	✓		✓ ✓	
(15) Department of Justice				✓		
(20) Department of State					✓	✓
(25) Department of Finance			✓	✓	✓ ✓	✓
(35) Department of Health & Social Services	✓		✓	✓	✓	
(37) Department of Children, Youth & Families				✓		
(38) Department of Correction	✓			✓		
(40) Department of Natural Resources & Environmental Conservation				✓		
(45) Department of Safety & Homeland Security	✓			✓		
(55) Department of Transportation	✓	✓	✓		✓	
(60) Department of Labor	✓ ✓		✓	✓ ✓	✓	✓
(65) Department of Agriculture						
(70) Elections				✓		
(75) Fire Prevention Commission				✓		
(76) National Guard	✓			✓		
(77) Exceptional Citizens						
(90) Department of Higher Education	✓			✓		
(95) Department of Education (School Districts & Charter Schools)	✓ ✓			✓ ✓ ✓		
Unassigned	✓			✓	✓	
Total	12	2	5	17	8	4

✓ BNY Mellon ✓ Citizens Bank ✓ JP Morgan ✓ M&T Bank ✓ PNC Bank



Current Banking Relationships & Annual Fees by Bank

- The State pays over \$6.4 million in banking fees across 6 different banking relationships.
- The majority of this cost (72%) is related to processing merchant card transactions.¹
- PFM analyzed the pricing for each of these service providers. This analysis can be found in Section 5: Analysis of Current Fees and in the Merchant Card Section.



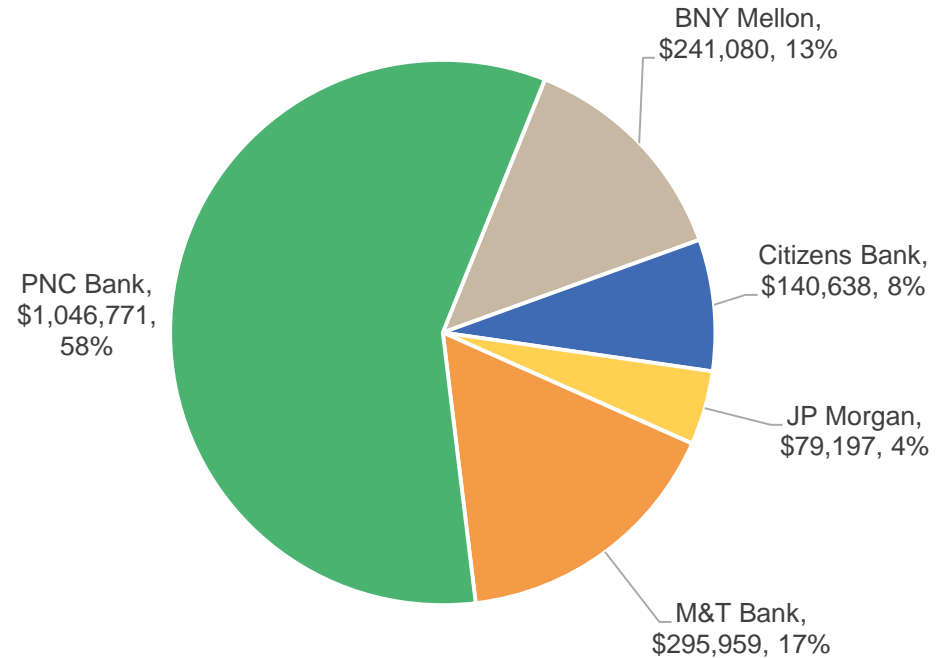
Source: State of Delaware Analysis Statements 4/2016 – 3/2017. M&T Bank DeIDOT fees annualized based on April 2017 statement. Data does not include prior Wells Fargo fees for pension/payroll of approximately \$16,000 per year.

¹ Detailed information about these fees can be found in the Merchant Card Section.



Current Banking Relationships & Annual Fees by Bank (without EPX)

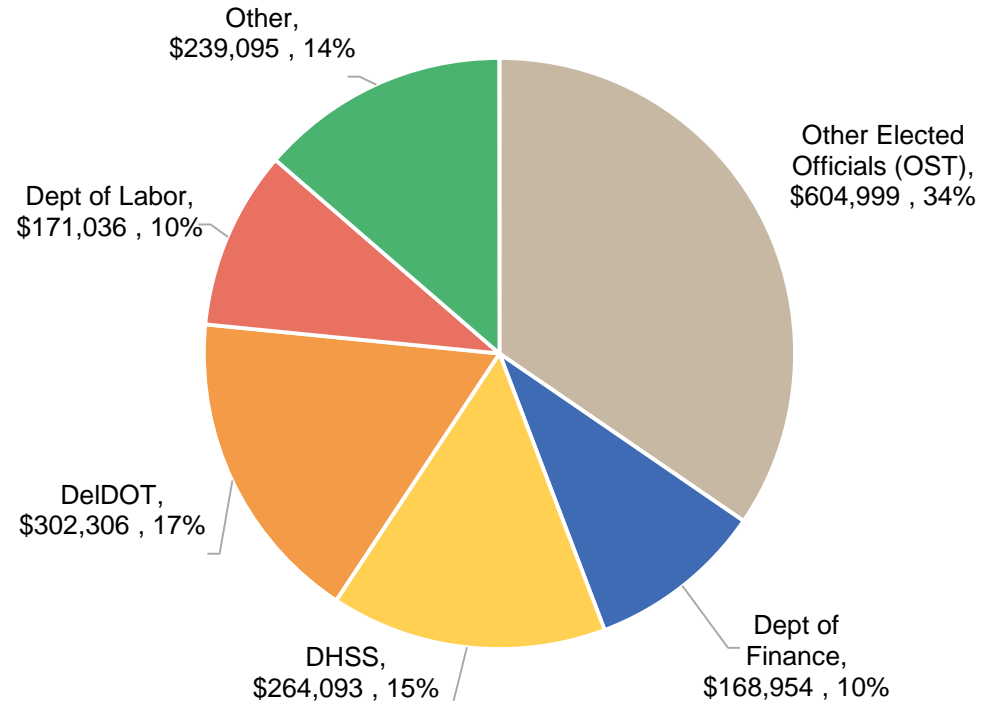
- When merchant card processing fees are excluded, the State pays approximately \$1.8 million in service fees across 5 banking relationships.
- PNC Bank accounts for 58% of the service fees.





Current Banking Relationships & Annual Fees by Department

- Over half of the banking charges (excluding merchant card) are incurred by four agencies:
 - Department of Finance
 - Department of Health & Social Services (DHSS)
 - Department of Labor
 - Department of Transportation
- These agencies combined with the OST (included in Other Elected Officials) account for 86% of the State's annual banking fees.



Source: Department fees annualized from March 2017 analysis statements. M&T Bank DeIDOT fees annualized based on April 2017 statement. Data does not include prior Wells Fargo fees for pension/payroll of approximately \$16,000 per year or BAMS merchant fees. PFM summarized fees based on the departmental ownership of individual accounts.



Merchant Card Annual Fees by Department

- The State pays approximately \$4.6 million in merchant card processing fees annually.
- Almost half (\$2.17 million) of these fees are for collections related to the Division of Corporations.
- The following six departments account for 98% of the State's merchant processing fees:
 - Department of State
 - Department of Transportation
 - Department of Finance
 - Department of Higher Education
 - Department of Natural Resources & Environmental Conservation
 - Judicial Branch

Department	Annual Fees	% of Total Fees
Department of State	\$ 2,276,864	49.53%
Department of Transportation	1,055,546	22.96%
Department of Finance	364,902	7.94%
Department of Higher Education	279,237	6.07%
Department of Natural Resources & Environmental Conservation	273,104	5.94%
Judicial Branch	243,235	5.29%
Department of Safety & Homeland Security	35,178	0.77%
Department of Health & Social Services	23,124	0.50%
Department of Education	22,781	0.50%
Department of Agriculture	7,589	0.17%
Fire Prevention Commission	3,649	0.08%
National Guard	3,778	0.08%
Department of Labor	3,117	0.07%
Department of Correction	2,823	0.06%
Executive Branch	1,489	0.03%
Department of Technology & Information	382	0.01%
Other Elected Officials	119	0.00%
Total	\$ 4,596,916	100%



Section 2: Strategic Organizational Recommendations



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Section 2: Strategic Organizational Recommendations

Introduction

- This section presents recommendations related to strategic organizational issues identified by PFM. It addresses the following issues:
 - Centralization versus decentralization of banking services
 - The role of OST in the management of the state's banking resources
 - Management of bank accounts and banking relationships
 - Allocation of banking costs to departments
 - Delegation of authority to certain state agencies using sub-administrators privileges
- A summary of the recommendations is presented at the top of each page with a color-coded box that identifies its priority as shown below. Additional background information and rationale are provided below each recommendation.
 - **HIGHEST PRIORITY**
 - **INTERMEDIATE PRIORITY**
 - **LOWEST PRIORITY**
- The decisions made regarding these strategic issues will have a significant impact on the approach the State takes to efficiently managing its banking relationships. It will also impact the Cash Management Policy Board's ability to effectively monitor and manage the risk inherent in the cash management function.



Centralization versus Decentralization of Services

Introduction

- The decision to centralize the management of banking services to a single party or department versus decentralizing the management of these services across multiple State agencies is fundamental to how the State manages and controls this important function. Based on our review of the State's cash management processes, PFM believes that the current mix of some centralized functions and some decentralized services is creating gaps in service and is making it more difficult to manage the risks associated with the cash management function. We believe that further centralization of the banking function would be advantageous to the State.
 - In Delaware, authority over the custody and investment of State funds is granted to the OST¹, suggesting that OST is the appropriate Department in which to centralize the banking function. Further, many of the functions of a centralized treasury function are already being managed by the OST;
 - Given the significant use of banking services by some agencies, such as the Division of Revenue and the Department of Health and Social Services, we suggest that certain agencies have more autonomy to manage their banking relationships and that these agencies be given "sub-administrator" privileges so they can continue to deal directly with the State's banking partners.
- The Association of Finance Professionals (AFP) includes "Centralize account structure and control" as a key element on its Best Practices Checklist for improving bank account management². Advantages of a centralized approach include:
 - Centralized treasury staff could specialize and potentially have a deeper knowledge of banking services. Staff would stay abreast of changes in banking services and technology and disseminate that information to agencies. This would be considerably more cost effective than having personnel in each agency attempt to stay up to date with changes in the industry.
 - The State could consistently implement fraud control services on all State accounts and quickly update those services as new fraud control techniques are introduced.
 - There would be greater control over the opening of new accounts, which would help to ensure that deposits are fully collateralized.
 - Centralized banking experts would be available to work with each agency to determine the best mix of banking services to achieve the business objectives of that agency.
 - The State should be able to achieve economies of scale by bundling banking services from multiple agencies together.
 - The centralized group will potentially have more clout with current banking partners and may be able to more quickly resolve problems and open issues.
 - A vendor risk management program is easier to manage by a centralized banking group.

¹ From Delaware State Code: Title 29, Chapter 27, § 2705 Custody and investment of state funds

² AFP Treasury in Practice: Improving Bank Account Management: Best Practices



Centralization versus Decentralization of Services

Introduction

- The centralization of banking services with a single coordinating agency is a common approach taken in other states. Based on data from the latest National Association of State Treasurers (NAST) Survey,¹
 - The State Treasurer is responsible for selecting the state's banking partners in 84% of reporting states;
 - The State Treasurer (or the functional equivalent in state's where there is no State Treasurer) is responsible for banking services in 98% of the reporting states;
 - A central coordinating state agency (generally the State Treasurer) is responsible for management of electronic payments in 90% of the reporting states.
- To realize the benefits of a centralized approach, additional resources will need to be allocated to the function.



Role of OST and Centralization of Banking Services

- i. Create a more centralized approach to managing banking services. ■
- ii. Allocate additional resources to fully manage and control the State's use of banking services. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• During PFM's meetings with OST and various State agencies, we learned that the role of OST in managing the State's banking relationships varied considerably in certain key areas.• OST is a centralized resource for all of the State agencies in the following ways:<ul style="list-style-type: none">- Opening and closing accounts¹- Paying bank fees- Issuing RFPs for banking services- Entering into bank contracts- Maintaining and updating authorized users of bank systems• In other areas, a more decentralized approach is used and State agencies have considerable autonomy. For example:<ul style="list-style-type: none">- State agencies are expected to self-manage PCI compliance- Division of Corporations has a separate banking relationship with J.P. Morgan Chase- DTI is the holder of the Govolution contract and currently responsible for the day-to-day reporting activity- Division of Child Support Services has a separate relationship with FIS for prepaid debit cards- DelDOT has a separate relationship with M&T Bank	<ul style="list-style-type: none">• Centralized and decentralized approaches both have merit, but we believe the State would benefit from a more centralized approach.• Based on its statutory authority and responsibility to have "custody of money belonging to the State" and its current management of most of the State's banking relationships, it appears to PFM that OST is the logical place to centralize banking services.• OST personnel currently responsible for managing the State's banking resources are stretched thin. We believe that more resources are needed for OST to fully manage and control the State's use of banking services. Without additional resources, it will be difficult to successfully implement some of the best practice recommendations in this report.• We understand that the State of Delaware, like most other states, has budget challenges that make the allocation of additional resources difficult. However, we believe a modest increase in spending to allow the OST to more thoroughly manage the State's banking relationships will make a significant improvement in operational efficiency and will reduce risk.

¹ OST has formal policies in place, but examples of agencies setting up accounts on their own using the State's EIN have been identified by OST.



Centralized Resource for Banking Policies and Procedures

- i. Establish a central repository of banking information for end-users across state government. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• OST currently serves as a centralized banking resource for State agencies. Agencies that require assistance with banking services are encouraged to contact the OST for assistance.• This high-touch approach can be time consuming for OST staff and has resulted in some minor “gaps” in knowledge by State agencies about products and services that can be offered by the banks.-If information is not getting circulated and an agency doesn’t know something exists, they don’t know what to ask about. Examples include details about remote deposit capture, PCI compliance and capabilities of Govolution.	<ul style="list-style-type: none">• PFM recommends that OST establish a central repository of banking information for end-users across state government.• The repository would contain the most up-to-date policies and procedures and other resources to provide more complete information to State agencies. For instance, the following questions came up during PFM’s meeting with various agencies:<ul style="list-style-type: none">- How does remote deposit capture work and would it be a good service for my agency?- How can we set up a site to accept merchant card and electronic transactions through Govolution?- Where can I get more information about PCI compliance requirements?• There are several ways that the OST could make this information available. A secure intranet, FTP site or addition to an existing State database could work.• Having a central location to access information about potential issues or challenges that occur in their use of banking services would be an important resource and can address some of the concerns raised during the agency reviews.



Agency Bank Account Management

- i. Perform a formal annual review of accounts with department heads to ensure the State is not paying for accounts and services that are not needed or used. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• OST is currently handling the administrative work related to opening and closing agency bank accounts that are using the State's EIN, including managing users entitlements and updating signature cards. This can be very time consuming, and OST has noted that they would like a way to shift some of this administrative burden, while still maintaining adequate internal controls.• For agency bank accounts, it is important for OST to ensure the correct Employer Identification Number (EIN) is used when accounts are opened. It was noticed that:<ul style="list-style-type: none">- 12 Department of Correction accounts had to be reestablished using the correct EIN- 2 National Guard accounts had to be updated with the correct EIN• The State's Budget and Accounting Manual (BAM) sets strict guidelines regarding when the State's EIN is allowed and prohibited from use. Use of the State's EIN is permitted for agency petty cash and non-petty cash accounts, however, non-petty cash accounts are restricted to specific uses.• Any accounts used for non-State activities are required to use the agency's EIN. The State requires these organizations to have controls• It was noted throughout our discovery meetings that some agencies need flexibility to easily open and close accounts. For example, Civil and/or Superior Courts may need the ability to open/close escrow accounts during the litigation process.	<ul style="list-style-type: none">• One challenge faced by large organizations is paying for banking services that are not needed or not used. A recommended best practice is to conduct a formal annual review of agency bank accounts with department heads to ensure the State is not paying for accounts and services that are not needed or used.• This annual relationship review should also include confirmation that accounts are set up with the correct EIN and appropriate authorized signers.• The bank's relationship manager can play a helpful role and alleviate much of the administrative burden of this annual review by providing detailed information about account usage.• When accounts are opened, OST should consider setting a standard set of fraud preventative services that are added to all new accounts*. These include:<ul style="list-style-type: none">- ACH Debit Block- Check Block / Post No Check- Positive pay- Payee positive pay



Allocation of Costs to Departments

- i. Consider allocating banking costs to the agencies that use banking services. ■

Observation

- OST's current policy is to pay for all of the State's banking services from its budget. The cost of all these services is roughly \$6.4 million including merchant card processing fees.
- When end-users are not responsible for paying fees for services used and are not aware of the cost of those services, there is little incentive to review accounts, close accounts that are no longer needed, and to turn off services that are no longer used.
- OST recently reviewed open accounts with the various State agencies and identified 50 accounts that can be closed. With a monthly maintenance fee of \$30 per account, this will reduce banking costs by \$18,000 per year.

Suggestion / Recommendation

- We recommend that the State consider allocating banking costs to the agencies that use banking services.
- The intent is not for OST to pass-through all service fees, but to allocate enough of the fees to make State agencies more conscious of the costs related to dormant accounts and inefficient account structures. Charging a handful of items could be enough to accomplish this task. Assessing a fixed fee for each open account could incent the agencies to eliminate unused or unnecessary accounts.
- Charging the agencies for processing paper checks and providing ACH services free of charge would encourage agencies to move away from expensive check writing and adopt ACH, a more secure, cost effective disbursement method.
- It would also be useful to have regularly scheduled reviews of the fees incurred by individual departments to determine if there are any cost savings opportunities available.



Bank Relationship Management

- i. Hold periodic reviews with each banking partner to review open issues and analysis statements, discuss new products, opportunities for efficiency and fraud protection, and review financial condition of the bank. Consider using a report card during these sessions to report on what the bank is doing well and where there is room for improvement. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• One key to a successful banking relationship is the bank's ability to respond to day-to-day requests and to provide strategic leadership in managing the relationship.• In general, OST and State agencies indicate that they receive a satisfactory level of service from day-to-day customer service representatives and the relationship management team with the State's various banking partners.• However, there were several instances where it appears that problem resolution takes longer than it should. BNY Mellon, in particular, was mentioned as a bank where it has been difficult to resolve open issues.	<ul style="list-style-type: none">• By implementing a more centralized approach, OST will be better positioned to manage the banking relationships and address customer service challenges faced by agencies.• PFM recommends that OST hold periodic reviews with each of the State's banking partners. The sessions should cover the following:<ol style="list-style-type: none">1. Review of open issues and problems;2. Review of the monthly account analysis statement to determine if volume counts are appropriate and consistent, and to be sure that contract pricing is properly applied;3. Consider any new products that could replace or enhance existing services or increase efficiency;4. Determine if there are less expensive ways to process transactions without sacrificing efficiency;5. Discuss fraud protection and consider ways that transactions can be processed more securely; and6. Review the financial condition of the bank and any recent changes.• Some organizations use a "report card" during these sessions to report on what the bank is doing well and where there is room for improvement.• We also suggest that agencies with large account relationships are included in these meetings or have separate meetings with the banks.



Vendor Risk Management

- i. Establish regular, periodic reviews of banking partners to assess risk exposure. These reviews should examine the State's exposure at the bank, evaluate changes in the bank's financial condition, confirm the bank's credit ratings meet or exceed established minimum thresholds, and review any recent news or meaningful financial events that may change the bank's condition, status or capabilities. ■

Observation

- As part of a due diligence program, the State should periodically review the financial strength and stability of its financial partners. This review should cover banks and other financial institutions that process, validate, transfer, disburse and hold cash.
- Financial information from the banks is generally available from bank regulators and credit rating agencies. News reports may also indicate changes in the industry that may be relevant.

Suggestion / Recommendation

- We suggest that OST establish regular, periodic reviews of its banking partners to assess risk exposure and to identify areas where changes in processing may be required. The GFOA recommends quarterly reviews for primary banking partners and annual reviews for other banks and financial partners.
- The GFOA suggests that the reviews should:
 - Identify the product usage at the bank;
 - Describe the government's exposure at the bank (balance levels, exposure to product issues, etc.);
 - Evaluate changes in the bank's financial condition;
 - Confirm if the bank's credit ratings meet or exceed established minimum thresholds; and
 - Review any recent news including management changes, legal and regulatory actions, key product changes, changes in market capitalization, mergers or acquisitions and any other meaningful financial events that may change the bank's condition, status or capabilities.
- As part of its role as the central administrator of banking services, OST should be responsible for facilitating the financial review of banking partners. This will be considerably more efficient than having individual agencies perform their own assessments.



Management of Outside Contracts

- i. Restrict the ability of agencies to enter into separate banking contracts to prevent additional vendor risk. Educate the agencies on the potential risks to the State if outside vendors aren't managed properly. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• During our discovery meetings, we identified several instances where an agency initiated discussions with third-party vendors to address specific cash management requirements.<ul style="list-style-type: none">- Several agencies (the Courts, Correction and DHSS) use payment kiosks provided by TouchPay GTL. This contract is between DTI and TouchPay GTL. (It is interesting to note that the Administrative Office of the Courts did not perceive there to be a cost to the State for the use of these kiosks. However, a further review by OST revealed the State is, in fact, incurring fees for these services.)- During another meeting, a Division manager mentioned that they were exploring a potential online gateway to accept merchant card payments and ACH transactions. After hearing about Govolution and its capabilities, the manager believed the platform could meet all of the Division's needs.- The Department of Accounting has a purchasing card and single use account program with J.P. Morgan Chase. This program is widely used by State agencies with over \$80 million in disbursements processed through this program.	<ul style="list-style-type: none">• Overall, the OST has done a good job of centralizing banking contracts. However, there are some situations where agencies have entered into separate, stand-alone contracts with financial firms.• Since these stand-alone contracts may open the State to additional vendor risks, we concur with the OST's desire to restrict the ability of agencies to enter into separate contracts.• In order for the agencies to appreciate the sensitivity and risks posed, education and knowledge is key. For instance, if an agency realizes that entering a relationship with a different gateway provider to accept payments would introduce the need to integrate with the State's existing merchant card processor, greater PCI compliance responsibility, and potentially different fee structure, they may be more inclined to work with OST in establishing new third-party relationships or leveraging an existing solution.• A centralized banking repository may prove valuable in disseminating this education and knowledge.



Online Web Reporting – Administrators & Sub-Administrators

- i. Adopt formal policies and procedures for managing users of the bank’s online platforms. ■
- ii. Consider the use of sub-administrator hierarchy in online platforms. This would allow OST to grant heads of State agencies the ability to administer and be responsible for maintaining their online users. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• State employees are currently using online bank web reporting for a variety of purposes. The most widely used platforms are:<ul style="list-style-type: none">- PINACLE (PNC Bank)- accessMoney Manager (Citizens Bank)- JPM Access (JP Morgan)- TreasuryEdge (BNY Mellon)• OST is granting and administering online access for nearly all employees.<ul style="list-style-type: none">- Maintaining and updating user profiles can be a time consuming and burdensome task. This places a drain on the limited OST resources that manage the State’s banking services.- There is no systematic process of managing users and permissions as employees leave State employment or change positions.- OST is spot checking authorized users, but PFM was not able to identify a comprehensive list showing all authorized users and permissions.• The current process of managing administrative rights is paper intensive. OST expressed a desire to minimize “pushing paper.”	<ul style="list-style-type: none">• We recommend that OST adopt formal policies and procedures for managing users of the banks’ online platforms. These rules should cover both enrolling new users and terminating access for those that no longer need access.• Best practices include:<ul style="list-style-type: none">- Receiving a regular report from each bank (generally available online) showing all enrolled users and their entitlements.- At least annually, positively confirming with department heads that each of the enrolled users remains in a job that requires access to the bank systems and that entitlements – particularly the ability to initiate transactions – are correct.- Requiring that access to the bank’s online platform for terminated employees is immediately rescinded.



Online Web Reporting – Administrators & Sub-Administrators (cont.)

Observation

- During our meetings, it was mentioned that maintaining and updating user profiles consumes a significant amount of time.
- As the State embraces technology, such as remote deposit capture, there will be an increasing number of users that need access to the online bank portals. If the current approach is not modified, setting up and maintaining users will require an even greater time commitment from OST's staff.

Suggestion / Recommendation

- As an increasing number of users requiring online access, OST will need to be prepared to allocate additional resources or find an alternative approach.
- An alternative approach to managing online access rights is the use of sub-administration. Sub-administration would allow OST to grant heads of State agencies the ability to administer and be responsible for maintaining their online users. This approach allows OST to maintain centralized control of online administration rights, while alleviating the burden of managing individual user entitlements.
- Using this approach, OST would serve as the “master” administrator and the department or division heads would be “sub-administrators” and responsible for their users.
 - Sub-administration capabilities will reduce the time and effort expended by OST to maintain and update user profiles.
 - Agencies will have responsibility for ensuring that entitlements are kept up-to-date (i.e. when employees leave).
 - Granting sub-administration rights transfers some authority to departments, while allowing OST to maintain control.
 - Sub-administrators will only be able to grant access to their users for information and accounts that they have access to.
- It should be noted that not all banks have sub-administration capabilities.



Online Web Reporting – Issues Faced

Observation

- Online reporting is an effective and necessary tool for the day-to-day operations of cash management. Features vary from bank to bank.
 - For example, PNC's PINACLE platform is unable to copy profiles from current users to easily set up new users with the same permissions. On the other hand, BNY Mellon's TreasuryEdge platform has this ability.
 - The inability to easily copy privileges may be a reason why PHRST users have found that PINACLE (PNC Bank) is not currently keeping information "siloes" based on user. Upon login, users are able to see financial data, as well as personally identifiable information (PII), for other user groups and departments. This inability to separate user groups makes certain users unable to receive notifications because notifications would be sent to the entire user base, and not specifically the user that needs to see the notification.
- There are also instances where online reporting displays inaccurate data.
 - The Department of Correction reported that check numbers in PINACLE are not always correct. This creates additional work for staff to locate and fix these errors.

Suggestion / Recommendation

- These challenges are items that OST and the respective agency should address and correct with the State's bank relationship management team.
- Although these are specific examples of issues currently faced, there will be new and different issues in the future. The strategic organizational recommendations made by PFM are intended to create a banking structure that allows end-users to be able to realize remedies to potential issues more quickly.
 - The central repository of banking information will provide a "quick help" guide and the name of a person to contact for issue resolution.
 - For effective vendor risk management, OST needs to be aware of these service issues. These issues should be discussed during the periodic discussions with each banking partner.



Section 3: Structural & Rebidding Recommendations



Structural & Rebidding Recommendations

- PFM was tasked with making recommendations about the most efficient and cost effective way to divide cash management services among multiple banking partners. In this section, we provided an overview of the State's current bank structure, an assessment of alternative structures and our recommendations.
- **Current Bank Structure:** In order to make thoughtful recommendations, we began our assessment by reviewing the State's current structure with a focus on what is working well and where there are challenges.
- **Alternative Bank Structures:** There is no single best practice when it comes to structuring banking relationships, even among similar organizations like state treasuries. The nuances of each organization often dictate the most efficient banking structure. For Delaware, we have considered several commonly used structures and the advantages and disadvantages of each as they would apply to the State, including:
 - Single Provider Model
 - Agency Selected Model
 - Best-of-Breed Model
 - Division of Services by Function
- For a complex organization like the State, we often find that the best solution is a hybrid approach that blends the advantages of multiple structures.
- **Structural Recommendations:** PFM is recommending an approach that uses two primary banks with additional prequalified local depositories (if needed). Auxiliary services such as lockbox and merchant card services would be bid separately and could be awarded to the State's primary banking partners or other financial institutions.
- **Rebidding Recommendations:** PFM is providing recommendations on how to competitively procure banking services in a way that allows the State maximum flexibility and ensures competition.



Current Bank Structure



Current Bank Structure

- The State's current banking structure includes three primary cash management providers that serve the following functions:
 - **State Disbursements & State Agency Accounts**¹ – This bank processes the majority of the State's disbursement activity, including checks and outgoing ACH transactions. These services are currently provided by PNC Bank. PNC also holds over 200 bank accounts that are used by the State agencies.
 - **Electronic Collections** – This bank provides remote deposit capture services, which allows agencies to scan and process check deposits without having to physically take the checks to a bank branch or vault. The bank also handles other electronic transactions by ACH and wire. BNY Mellon currently provides these services.
 - **Branch Banking** – This bank meets the State's significant branch banking needs. These services are currently provided by Citizens Bank.
- The State has historically used two banks for collecting funds (one for physical deposits and the other for electronic deposits) and one bank for disbursements. While this approach may facilitate account reconciliation, PFM believes that the approach is adding complexity to the State's banking structure and cash positioning, without providing much benefit to the State.
- In addition to the three primary cash management banking relationships, the State has contracts with other financial institutions for the following auxiliary services:
 - Department of Transportation banking relationship with M&T Bank
 - Merchant card processing with Bank of America Merchant Services
 - Division of Corporations lockbox with J.P. Morgan
 - Purchasing card / virtual card program with J.P. Morgan
 - ATMs with WSFS
 - Stored value card with KeyBank and FIS
- A schematic of the current banking structure is shown on the following page.



Current Bank Structure

PNC Bank:
 State Disbursements & Agency Accounts, Lockboxes

14 OST Cash Positioning Accounts

240 Agency Accounts

The following services are performed by PNC:

- Processes disbursements by check and ACH
- Holds State agency bank accounts
- Receives deposits for State agency accounts
- Processes deposits sent to two wholesale lockboxes
- Processes direct deposit of payroll (Transitioned from Wells Fargo to PNC Bank in May 2017.)

BNY Mellon:
 Electronic Collections, Lockbox & eLockbox

7 OST Cash Positioning Accounts

Serving as the State's Electronic Collections Provider, BNY Mellon provides the following services:

- Receives incoming electronic payments using Electronic Credit Collection (ECC)
- Receives deposits by remote deposit capture
- Serves as the "concentration" bank for excess balances and a sweep into a money market mutual fund is used
- Processes pension receipts through a Lockbox and provides eLockbox services to the Division of Revenue

Citizens Bank:
 Branch Banking

1 General Collection Account (For Branch Deposits)

6 Agency Accounts

Citizens Bank is the State's primary branch banking partner and provides the following services.

- Receives agency deposits into a centralized State account at branch locations
- Provides deposit reconciliation services and sends a single file of deposits for posting to FSF

M&T Bank:
 Branch Banking

11 Agency Accounts

8 DeIDOT Accounts

M&T Bank is an additional branch banking partner used mostly by the Courts and Department of Education

M&T is also used as DeIDOT's main cash management services provider under a separate relationship

BAMS:
 Merchant Card Services

JP Morgan:
 Lockbox & Purchasing/Virtual Card

WSFS:
 ATMs

KeyBank & FIS:
 Stored Value Card

* OTC = Over-the-Counter Branch Deposits / RDC = Remote Deposit Capture

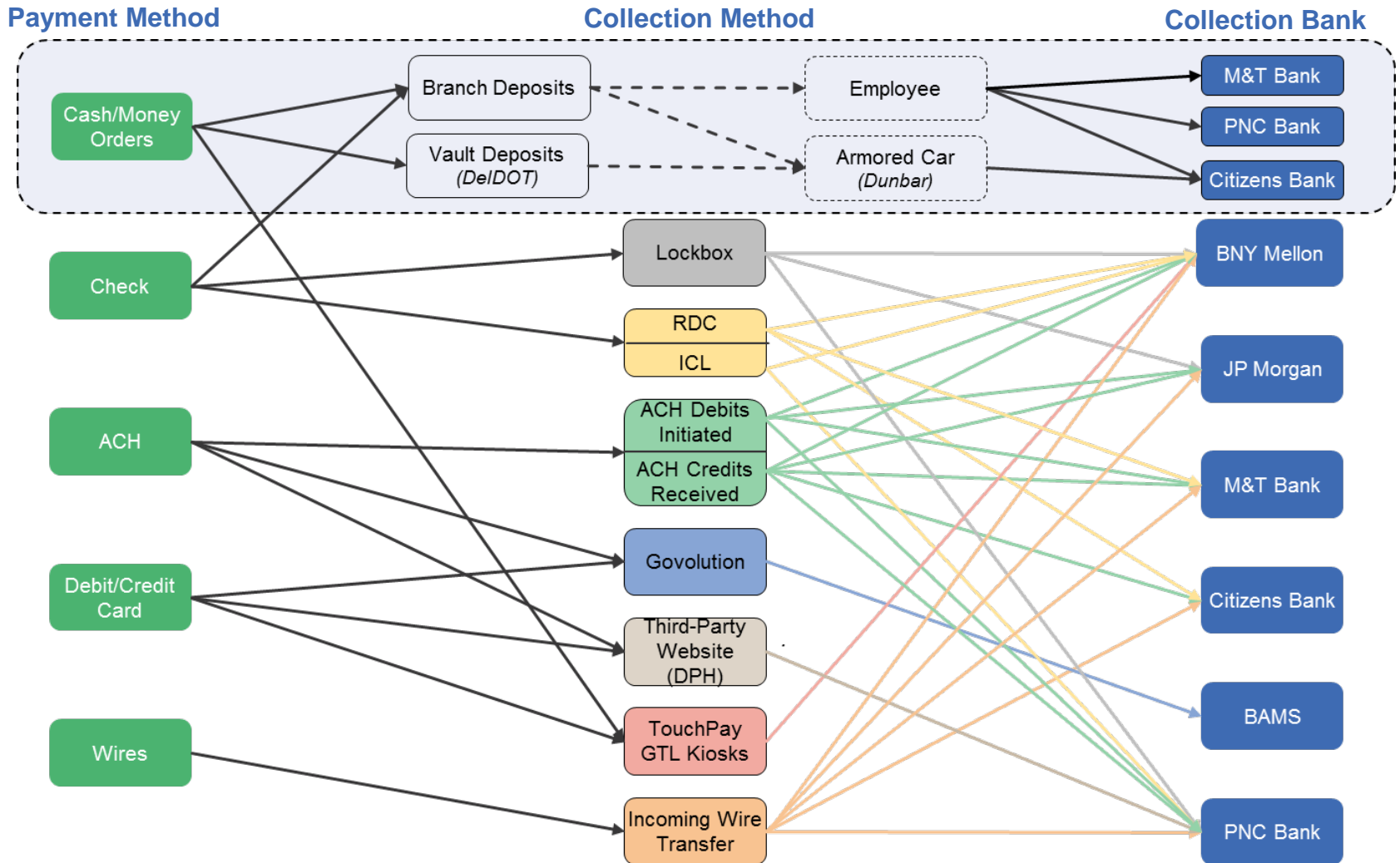


Banking Services Map

- The charts on the following two pages show the complexity of the State's current banking approach. They attempt to graphically convey the duplication of services among banking partners.
- On the receipts chart, the left hand column shows the method of payment with an arrow drawn to the method of collection (middle column). A second arrow is drawn to the bank of deposit (right hand column).
 - For example, checks are processed through lockboxes at three banks (BNY Mellon, JP Morgan and PNC).
- On the disbursements chart, the left hand column shows the bank and the right hand column shows the disbursement method.

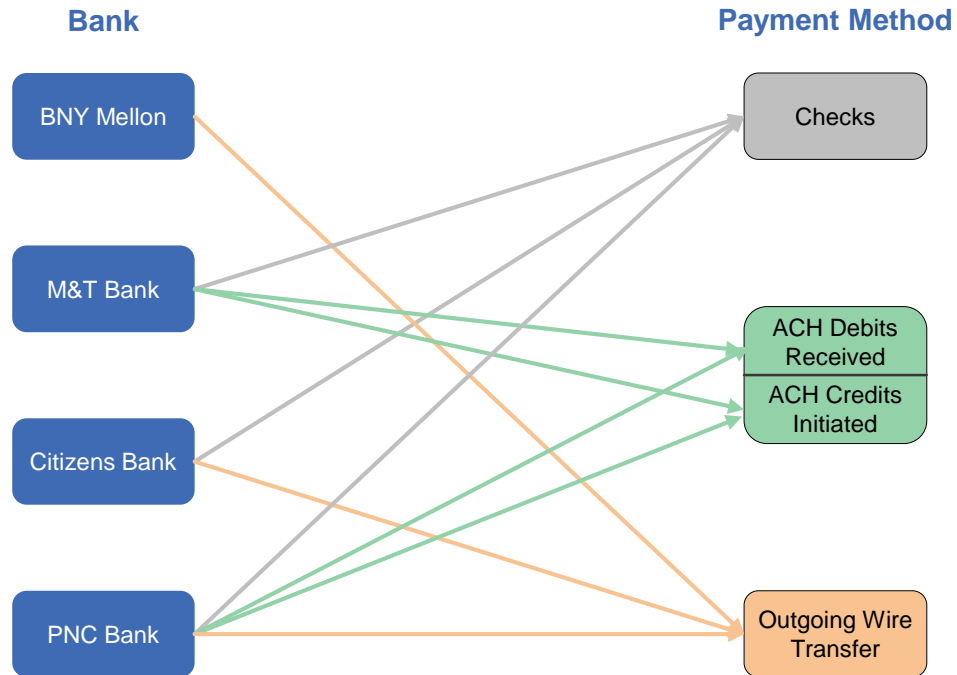


Depository Services Map – Current





Disbursement Services Map – Current





Alternative Bank Structures



Alternative Bank Structures – Single Provider Model

Topic	Merits	Disadvantages
Single Provider Model	<ul style="list-style-type: none"> As the name implies, the Single Provider Model employs a single bank to provide a comprehensive array of services. This approach is considered to be simpler to manage because there is one bank, a single relationship manager, one online platform and a consolidated banking structure. For entities significantly smaller than the State of Delaware, this approach is often used because it can help a small organization obtain more aggressive pricing on the “bundled” set of services. 	<ul style="list-style-type: none"> It is unlikely that a single bank could provide all of the services needed by the State and State agencies. The branch banking services, in particular, would be a challenge for most banks. A single provider approach is likely to limit the competition, since there are few banks that have the bandwidth to offer all of the services required by the State. Less competition typically results in higher prices. This model may result in proposals from banks with multiple subcontracted services, which can complicate both the contract and management of the relationship. Having a single banking partner would put the State in a difficult situation if that bank were to default or go out of business. After seeing the turmoil in the banking industry during the financial crisis, most large organizations are now looking to have a secondary, or “backup” bank.
PFM’s Assessment of Model	<ul style="list-style-type: none"> Given the magnitude of the State’s banking relationships, PFM does not believe a single bank could meet the State’s cash management requirements. Using a single provider would require that the State “settle” for a firm that meets the minimum requirements for a wide breadth of operational needs. Further, the State’s banking needs are significant enough that it would not need to bundle everything together to attain good pricing. 	



Alternative Bank Structures – Agency Selected Model

Topic	Merits	Disadvantages
Agency Selected Model	<ul style="list-style-type: none">• For large organizations, allowing each component unit to operate autonomously and select their own bank can be an effective way of obtaining specialized or customized solutions for each unit.• In Delaware, this is the approach used for the Department of Transportation, the Division of Corporations (J.P. Morgan lockbox) and a handful of remote schools.	<ul style="list-style-type: none">• This approach decentralizes the responsibility for managing a banking relationship to multiple parties. This can result in a duplication of administrative responsibilities, the need for multiple banking “experts” and higher fees.• Dividing the banking relationship into too many smaller pieces may lead to higher pricing and less negotiation power.
PFM’s Assessment of Model	<ul style="list-style-type: none">• Overall, the State agencies expressed a high level of satisfaction with the existing banking structure. Therefore, there appears to be little desire from individual State agencies to independently select and manage their own banking relationships.• For some services, like the Division of Corporations lockbox, specialized needs have led the agency to establish their own banking relationships. This approach appears to have worked well, however, we believe that there are compelling reasons for OST to be involved in the contracting and management of these banking services in the future.<ul style="list-style-type: none">• By centralizing the management of the contracts, OST would be better positioned to manage bank contracts and monitor vendor risk.• Further, the State may benefit from further economies of scale by taking a more holistic approach to procuring banking services.• Because of the unique status of the Transportation Trust Fund, a compelling argument can be made for allowing the Department of Transportation to manage its own banking relationships. However, we recommend that DeIDOT work more closely with the State’s banking experts at OST to share ideas and compare pricing.	



Alternative Bank Structures – Best-of-Breed Model

Topic	Merits	Disadvantages
Best-of-Breed Model	<ul style="list-style-type: none"> • Using this approach, an organization selects multiple banking partners to deliver services based on expertise, technical capabilities, specialized services or commodity pricing. Separate contracts are often awarded for: <ul style="list-style-type: none"> - Basic Cash Management Services - Branch Banking - Lockbox Processing - Merchant Card Processing - Accounts Payable Processing - Purchasing Cards - Security Custody Services - ATM operation • Selecting multiple firms allows an organization to select firms that specialize and/or have proprietary service offerings. • This approach can significantly increase the competitiveness of the RFP process and often results in the lowest overall cost. 	<ul style="list-style-type: none"> • Taken to an extreme, this approach could lead to a large number of separate vendor relationships, which would increase the administrative burden related to vendor management. • A large number of small banking relationships could also increase the operational work required of employees responsible for sending/receiving files, reconciling accounts, administering online access and coordinating the flow of funds between bank accounts. • Breaking a relationship into too many small contracts may make the account less attractive for some vendors and could result in a loss of economies of scale and less competition.
PFM's Assessment of Model	<ul style="list-style-type: none"> • Given the significant size of the State's banking relationship, PFM believes that the State's cash management services can be divided into several groups without creating operational challenges. The State is already using the approach without apparent difficulty for merchant card processing, purchasing cards, stored value card, and ATMs. 	



Alternative Bank Structures – Division of Services by Function

Topic	Merits	Disadvantages
Division of Services by Function	<ul style="list-style-type: none"> • Another approach to structuring banking services is to divide services by function. For example, all disbursement activity (i.e. checks, ACH, purchasing cards, and virtual payments) could be consolidated with a single provider. • This approach can simplify reconciliation. For example, all deposit activity could be consolidated with a single bank. The bank would transmit a consolidated file with all deposit activity. • The State is using this approach for branch and electronic collections. 	<ul style="list-style-type: none"> • This approach may result in bank accounts set up for the same general ledger account at multiple financial institutions. The redundant bank structure may be costly to maintain. • A systematic approach to monitoring cash balances would be needed to move money from the institution receiving funds to the institution disbursing funds. • Although consolidating disbursement activity may seem efficient, there may be different requirements for disbursement checks versus purchasing cards, which are both disbursement services. For example, the Division of Welfare wants to write checks on a local bank so that check recipients can cash the checks at a local branch. Employing a single bank to provide disbursement services would limit potential providers to those with a branch presence in the geographic area. This in turn could limit competition and potentially increase costs.
PFM's Assessment of Model	<ul style="list-style-type: none"> • With the advance of technology, the definition of a “functional service” has become less clear. Is a physical check deposited by remote deposit capture a deposited item or an electronic transaction? Is a payment to a vendor by check or payment by virtual card the same? As these lines become more blurred, it becomes difficult, if not impossible, to simply classify a transaction with a single label. • The State's current approach of dividing its primary banking relationships between electronic collections, disbursements and branch banking is effectively a division by function. We believe that this approach has added complexity and cost to the State's banking structure and cash positioning. 	



Recommended Bank Structure



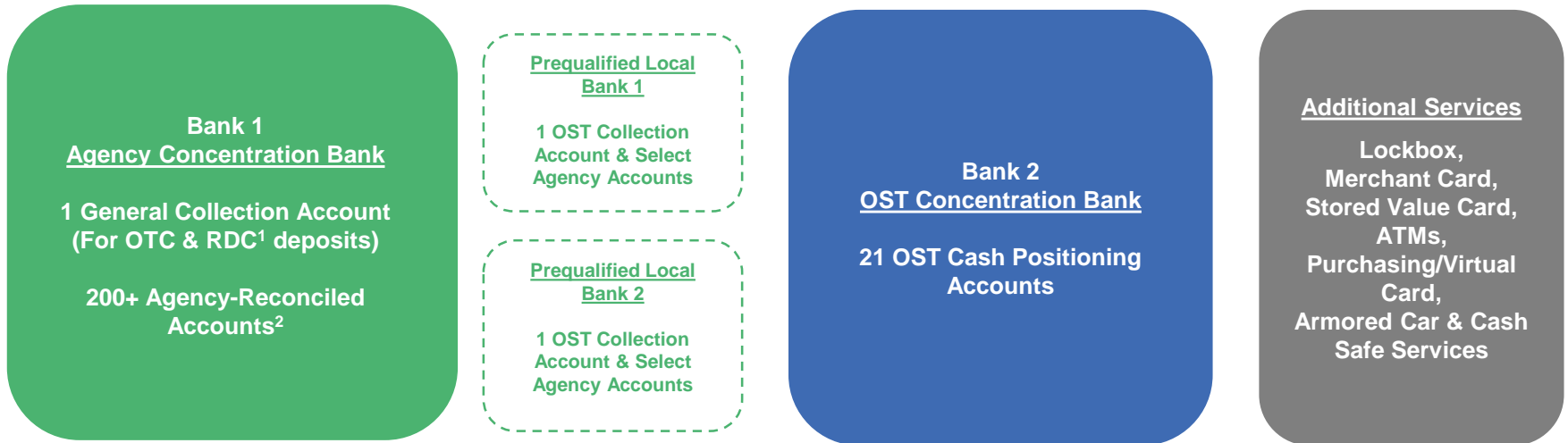
PFM's Recommended Bank Structure

- PFM recommends the use of two primary concentration banks with additional branch network support from prequalified local banks.
 - **Bank 1:** (Agency Concentration Bank) will provide collection and disbursement services for most Agency-reconciled accounts. This relationship will also process the FSF deposits into the central OST collection account. This would have to be a bank with a substantial branch presence within the State as well as sophisticated cash management services.
 - **Bank 2:** (OST Concentration Bank) will provide collection and disbursement services for most of the State's current cash positioning accounts. These are primarily OST-reconciled accounts.
 - **Local Banks:** Additional prequalified local banks will provide limited banking services for Agency-reconciled accounts that need branch locations in closer proximity than Bank 1. These banks will be used on an exception basis and only if Bank 1 cannot meet the branch needs of a specific agency or division.
- **Additional Services:** A best-of-breed approach would be used for Lockbox, Merchant Card, Stored Value Card, ATMs, Purchasing/Virtual Card Services and Armored Car/Remote Cash Safe Services.
- The following pages provide additional details on this approach.



Structural Recommendation

- The structure below offers an efficient and flexible solution for the banking needs of the OST and State Agencies. Our focus was on improving OST reconciliation and concentration of funds, as well as reducing risk. This concentration of funds creates a better structure for the State to invest excess short-term liquidity and should diminish the current incidence of large daylight overdrafts.



The Agency Concentration Bank will hold 1 general collection account (similar to current Citizens -633 and BNY -883 accounts) and most agency-reconciled accounts. It will provide both collection and disbursement services. Most agency accounts will fall under this relationship. The additional prequalified local banks will provide additional branch options ONLY for agencies who do not have an Agency Concentration Bank branch nearby and need branch services. The need for these local branch relationships can be minimized with the use of RDC, remote cash safes and armored car services.

Requirements: Extensive Local Branch Presence. Bank 1 will also be required to have sophisticated cash management services.

The OST Concentration Bank will hold the accounts that currently set the cash position for the State. This will contain OST-reconciled accounts and Agency-reconciled accounts that are currently used in cash positioning. It will provide both collection and disbursement services.

Requirements: Sophisticated Cash Management Services

The Banks awarded these services could be one of the banks listed to the left or a different provider.

Requirements: Best-of-Breed for each Service



OST Concentration Bank (Bank 2) Accounts

- The table below identifies the accounts that will be structured under the OST Concentration Bank relationship. These are 21 of the 25 accounts currently used to set the State's cash position. Of the remaining four accounts, the three lockbox accounts will be moved to the Lockbox provider and the Citizens General Collections account will be moved to Bank 1. Balances from these accounts can be moved daily into Bank 2 if desired.

	Current Bank	Account	Last Four Digits of Current Account Number
1	BNY Mellon	General Collections	-4883
2	BNY Mellon	Bank Commissioner ¹	-2974
3	BNY Mellon	Pension ZBA Mercantile	-3569
4	BNY Mellon	Revenue Debit ACH Delinquent Tax	-1237
5	BNY Mellon	Revenue ACH Internet Filing	-8976
6	PNC	Abandoned Property	-0925
7	PNC	ACH Vendor Payments	-6529
8	PNC	Concentration	-0993
9	PNC	Credit Card	-7142
10	PNC	Department of Mental Retardation Special Services	-3988
11	PNC	Payroll	-5715
12	PNC	Payroll ACH Debit	-6107
13	PNC	Payroll Direct Deposit	-2356
14	PNC	Pension	-3802
15	PNC	Pension Direct Deposit	-2348
16	PNC	Pension – LOSAP Fireman's Pension	-7062
17	PNC	Pension – DPERS Qualified Excess Benefit Arrangement Plan	-4908
18	PNC	Revenue	-1974
19	PNC	Revenue Direct Deposit	-5222
20	PNC	Vendor	-5707
21	PNC	Welfare	-1982

¹ This is an agency-reconciled account that could be moved to Bank 1 if the agency/OST desires.

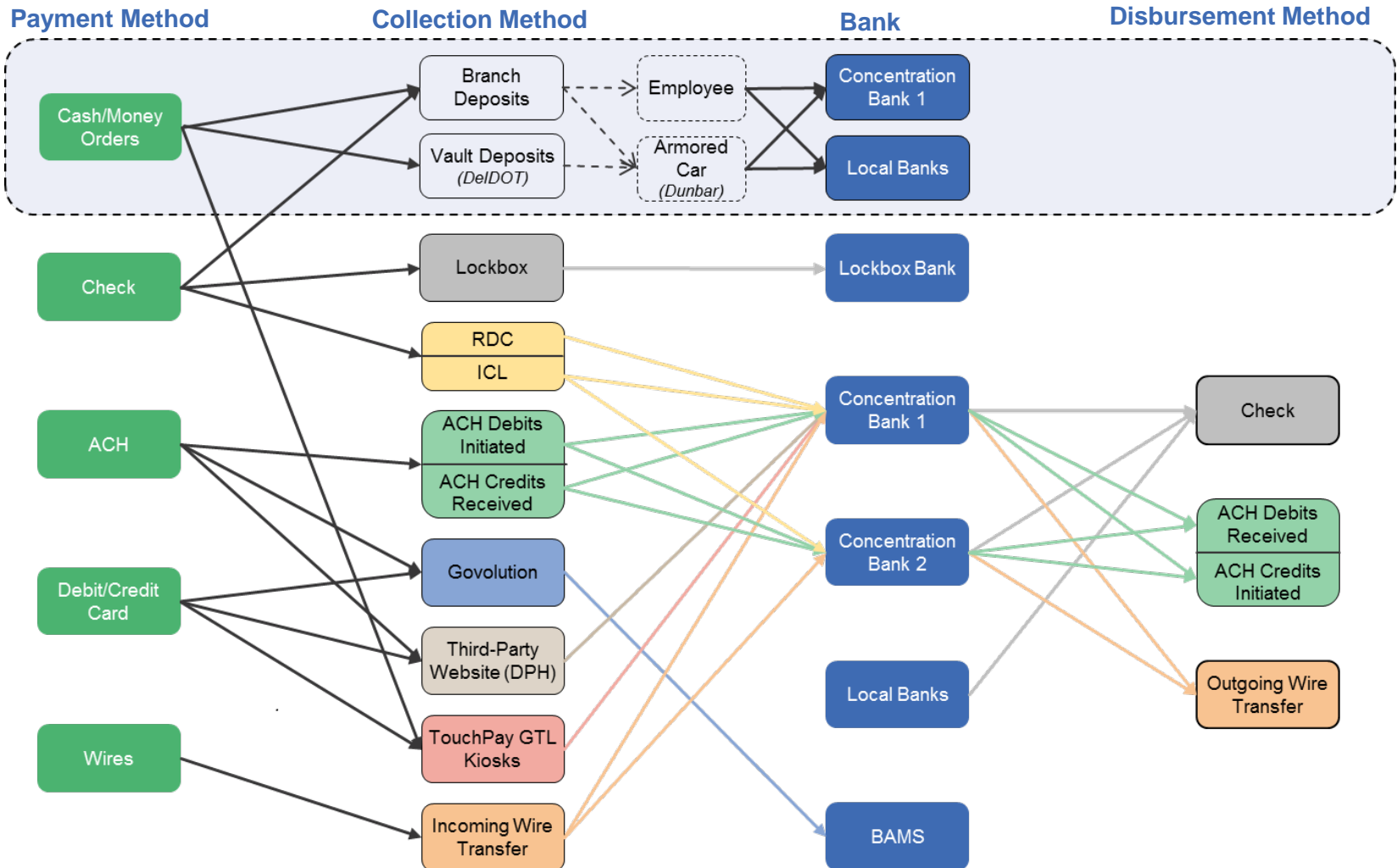


New Structure Benefits

- **Single Depositing Location for Agencies** – Agencies will be able to make their FSF deposits and Agency deposits at a single branch location.
- **OST Funds Concentrated at Bank 2** – With collection and disbursement activity at the same bank, the time and effort expended by OST to move cash between financial institutions will be reduced. With funds consolidated at a single financial institution, it will also be easier to implement investment strategies for OST funds.
- **Daylight Overdrafts** - Occurrences of daylight overdrafts should be reduced.
- **Increased Competition** – All branch activity would be met by Bank 1 (Agency Concentration Bank) or the additional prequalified Local Banks. There would be no requirement for Bank 2 (OST Concentration Bank) to have a branch presence in the State of Delaware, allowing banks with limited to no branch presence in the State to propose for these services.
- **Diversity of Bank Services at Multiple Institutions** – Both concentration banks will need to provide a variety of collection and disbursement services. The proposed approach reduces vendor concentration risk by more evenly splitting the State's overall relationship between Bank 1 and 2.
- **Flexibility for Agencies** - Between Bank 1 and the prequalified Local Banks, there should be ample geographic dispersion of bank branches for nearly all State agency needs. This proposed structure should eliminate the need for individual agencies to seek exceptions.
- **Potential Disadvantage of the Recommended Approach** - *Additional files or transmissions with deposit information will be received from the Prequalified Local Banks to be posted to FSF. Depending on the bank's capabilities, this initially may require some programming or DTI assisting with setting up file transfers, but should become an automated process once the initial programming is completed.*



Depository & Disbursement Services Map – Recommended Structure





Rebidding of Banking Services



Rebidding of Bank Services

- i. In 2017 - 2018, rebid primary banking services a single RFP with multiple “service groups” to allow banks to bid on one or more service. Stagger contract terms from 3 to 7 years. ■
- ii. Issue a Request for Qualifications to qualify local branch banks. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• According to the GFOA¹, state and local governments should periodically initiate a competitive procurement process in accordance with state and local laws and regulations for major banking services. This process should employ a formal RFP to review and evaluate areas such as quality of service, the creditworthiness of the financial institution, and fees for services.• The OST has historically awarded banking contracts with an initial 3-year or 5-year term with two 1-year renewals for a total possible contract term of 5 to 7 years.<ul style="list-style-type: none">– In anticipation of the Banking Structure Review project, OST has aligned contract termination dates for the majority of bank contracts to end in December 2018.– The ATM contract with WSFS and the stored value card contract with KeyBank can be terminated on 90 days notice.• It is considered to be a best practice to rebid banking services every 5 to 7 years. This timeframe allows an organization to move to a new bank if their needs aren't being met and allows the pricing to be re-evaluated and negotiated to current market rates. In addition, it keeps the bank's customer service team attentive and willing to problem-solve if they know they have to continue to earn your business.	<ul style="list-style-type: none">• Given the complexity of the State's banking relationships and the number of end-users, a transition of just one service will take a significant effort. It would be difficult, if not impossible, to transition multiple services to different vendors simultaneously. Therefore, once the State's banking services are realigned with the 2017/18 RFP, we recommend a staggered approach in awarding banking services in the future.• To accomplish this, we recommend the RFP issued in 2017/18 have maximum terms ranging from 3 to 7 years. At the end of these terms, we recommend a maximum contract term of 7-years (3-year initial term with two, 2-year renewals). This timeline will allow the State's banking contracts to be staggered.• The RFP process will be strengthened by receiving input from non-treasury departments, including operations, tax, legal, accounting, information technology, compliance/audit, and procurement. We recommend beginning the RFP drafting process 12 to 15 months before the start of the new contract so the input of all departments can be considered and services can be transitioned in an orderly manner.

¹ Government Finance Officers Association, <http://www.gfoa.org/procurement-banking-services>



PFM's Recommended RFP Structure

Introduction

- PFM recommends that the State's banking needs be divided into the following 9 categories. These service groups could be bid simultaneously (allowing banks to bid on one or more services) or separate RFPs could be used. The recommended service groups are:
 - Service Group 1: Agency Concentration Bank
 - Service Group 2: OST Concentration Bank
 - Service Group 3: Local Branch Banking (multiple awards)
 - Service Group 4: Lockbox Processing Services
 - Service Group 5: Merchant Card Processing
 - Service Group 6: Stored Value Card
 - Service Group 7: ATMs
 - Service Group 8: Purchasing Card Program / Virtual Cards
 - Service Group 9: Armored Car/Remote Cash Safes
- PFM is not recommending all 9 service groups be bid in 2018. Details on which services PFM feels should be rebid, and when, are provided on the following pages.



PFM's Recommended RFP Structure

Topic	Recommendation
Service Group 1: Agency Concentration Bank	<ul style="list-style-type: none">• The financial institution selected to provide the State agency accounts will need to provide an array of services, including:<ul style="list-style-type: none">- Branch network to allow agencies to make deposits into their respective bank accounts- High volume check disbursement capabilities- High volume ACH capabilities- Sophisticated RDC/ICL processing and reporting technology• Service Group 1 will facilitate branch banking activity for both the agency accounts and deposits into the central FSF account. This will allow State agencies to make deposits to a single physical location versus the current structure which requires them to make deposits at Citizens Bank and PNC Bank.• Further, State agencies that implement RDC technology can use the same equipment to make deposits into their account, or the central FSF account alleviating the need to purchase additional equipment or obtain training on two different online platforms.
Service Group 2: OST Concentration Bank	<ul style="list-style-type: none">• The vendor selected for Service Group 2 will have a relatively small number of accounts, but a significant volume of transactions and activity.• By consolidating OST activity with a single concentration bank, all of the incoming receipts and outgoing disbursements will occur at a single financial institution. This will simplify the current process of daily cash positioning and minimize the potential for daylight overdrafts.• This bank will need to be provide specialized reporting to facilitate the efficient posting of transactions to FSF.• Because this bank would have no branch banking requirements, a large number of banks would be eligible to bid on this work; we believe that the State will benefit from the commoditization of pricing for electronic transactions.



PFM's Recommended RFP Structure

Topic	Recommendation
Service Group 3: Local Branch Banking	<ul style="list-style-type: none">• The banks selected in this service group will meet the needs of agencies that have branch banking requirements in geographic locations where the State's Agency Concentration Bank (Service Group 1) does not have branches.• PFM recommends that a simple Request for Qualification be used to assess and qualify banks in this category.• This approach will ensure OST maintains centralized control of these relationships, which includes negotiating a competitive fee schedule for services with approved providers.
Service Group 4: Lockbox Processing Services	<ul style="list-style-type: none">• The bank selected as the State's lockbox provider will need to meet specialized requirements of the four agencies currently using lockbox services (Division of Corporations, Division of Unemployment, Pension, and Division of Revenue) as well as any new lockboxes that may be required.• Because of the specialized nature of lockbox services, the four agencies will need to be actively involved in the vendor selection process.• Consolidation of lockbox services should help the State to achieve economies of scale and reduce the significant expense of the service.
Service Group 5: Merchant Card Processing	<ul style="list-style-type: none">• Bank of America Merchant Services was recently awarded merchant card processing services. The State is still in the process of transitioning these services from EPX.• Assuming Bank of America Merchant Services is retained for the full 5-year term of the contract, merchant processing services would not need to be rebid in until 2021/22 with the next contract start date in summer 2022.



PFM's Recommended RFP Structure

Topic	Recommendation
Service Group 6: Stored Value Card	<ul style="list-style-type: none">• In addition to DHSS and Labor, which currently use stored value cards, there are a handful of State agencies that indicated an interest in the service. We recommend that OST follow-up with the agencies interested in the stored value card to determine their needs.• To allow time to work with the agencies that are considering the use of a stored value card, we recommend that the rebidding of the stored value card be delayed temporarily.• The KeyBank contract for stored value cards does not have a finite termination date and can be terminated by the State on 90 days notice. The FIS contract for DHSS expires in October 2018; depending on how long it takes to talk to State agencies about their interest in setting up a prepaid card program, it may be necessary to extend this contract for a short time.
Service Group 7: ATMs	<ul style="list-style-type: none">• In general, banks have been less interested in placing ATMs recently because of changes in consumer usage from cash to plastic. There is a substantial fixed cost of operating an ATM, so the reduction in transaction volume is making ATM placement less profitable for banks. Some banks are now charging fees of \$1,500 – \$2,000 per month to place an ATM.• Because of changes in the ATM industry, there is a very real risk that the State won't get any bids if it rebids this service – even from the incumbent bank.• If WSFS is willing to maintain current ATMs at no cost to the State, we recommend these services be excluded from the 2017/18 RFP and continue the relationship with WSFS.• The WSFS contract for ATMs does not have a finite termination date and can be simply terminated by the State on 90-day notice.



PFM's Recommended RFP Structure

Topic	Recommendation
Service Group 8: Purchasing Card Program / Virtual Cards	<ul style="list-style-type: none">• The Purchasing Card / Single Use Account Program is provided by J.P. Morgan and administered by the Division of Accounting.• The Single Use Account program has seen significant growth. If these services are awarded to a different vendor, the program would have to restart its vendor outreach efforts.• We believe there is limited improvement that can be made from an operational or rebate perspective, therefore we do not recommend that the services be rebid at the present time.
Service Group 9: Armored Car Services / Remote Cash Safes	<ul style="list-style-type: none">• The Division of Revenue and Division of Motor Vehicles are currently using Dunbar's armored car service.• If the State is interested in evaluating different cash handling services, including WSFS' Cash Connect, PFM recommends issuing an RFP for Armored Car & Cash Safe Services that is separate from the 2017/18 RFP that will be issued for other banking services. The cash handling RFP will need to include detailed information about possible pickup locations and the frequency of collection. Details about the projected volume of cash for each collection locations will also be needed so the vendors can price appropriately sized safes.• An alternative is for the State to procure additional armored car services using the existing Dunbar contract. This could be an effective short term solution if the State wants to immediately expand the use of armored car services; however, PFM recommends that the State ultimately issue an RFP for these services so that it is able to consider new technology and services like the WSFS Cash Connect product.



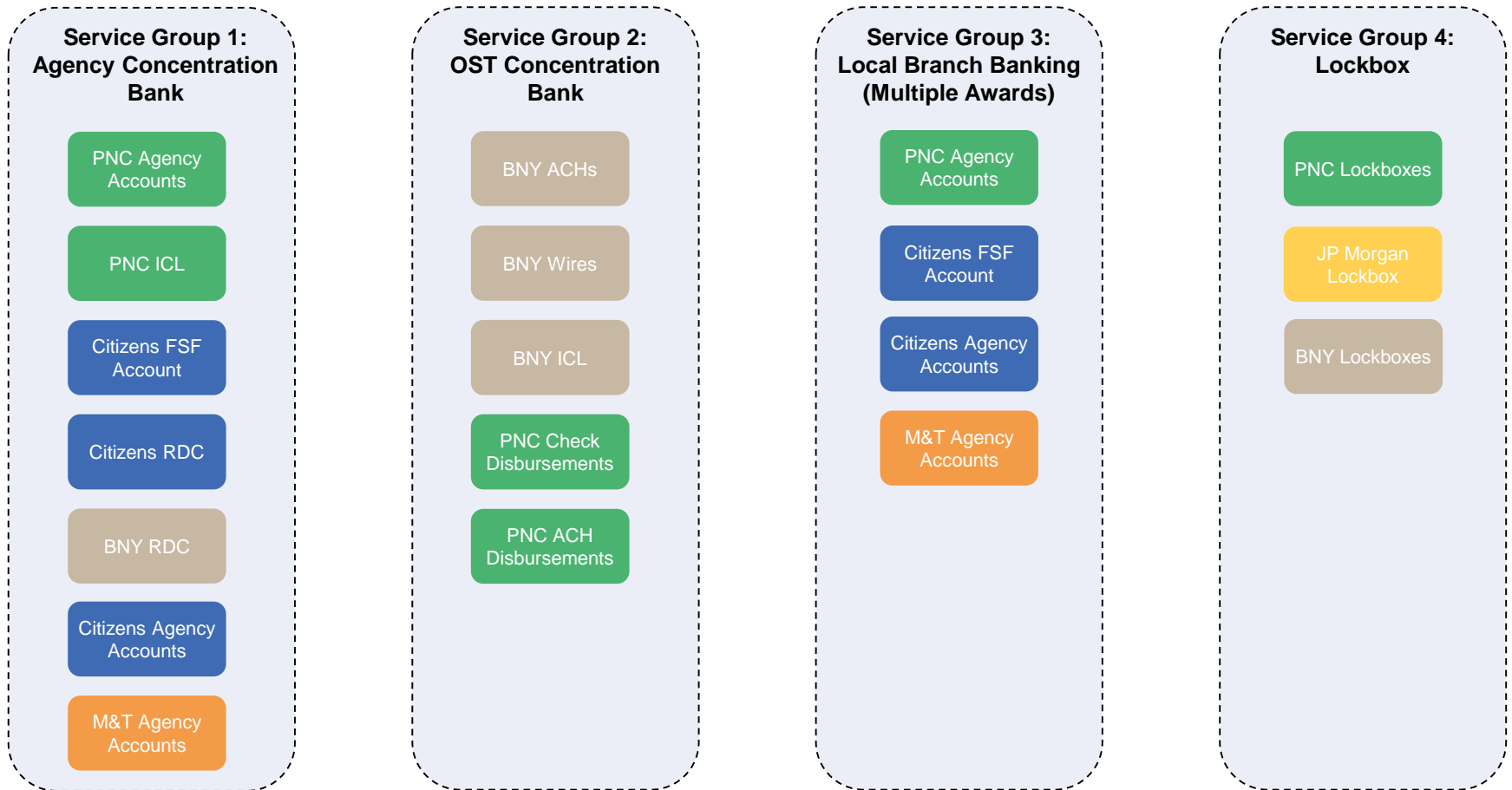
PFM's Recommended RFP Structure

Topic	Recommendation
Other Services Department of Transportation	<ul style="list-style-type: none">• DeIDOT has a contract with M&T Bank that is separate from the banking services managed by OST.• PFM's pricing analysis suggests that DeIDOT is paying premium prices and that savings of 34% to 67% could be obtained through a competitive RFP process.• DeIDOT should work with M&T to restructure the current fee schedule to more closely reflect current market pricing. It may be appropriate to issue an RFP to help facilitate a discussion with M&T about fees.• If DeIDOT decides to rebid its banking services, it may be advantageous to include those services as a separate service group in the upcoming RFP to be issued by OST. By including the business as a separate service category, DeIDOT officials would have the ability to independently evaluate and award services to the bank of their choice.



Components of Service Groups 1 - 4

- The graphic below illustrates the new alignment of services for service groups 1 - 4. The boxes are color coded to show the vendors that currently provide services.



✓ BNY Mellon ✓ Citizens Bank ✓ JP Morgan ✓ M&T Bank ✓ PNC Bank



Rebidding Bank Services – Recommended Timeline

- Given how time consuming and challenging it can be to change banking relationships, we recommend staggering the rebidding process for subsequent RFPs. The proposed timeline below awards contracts for a maximum term of 7 years and limits the number of RFPs issued during a calendar year.

	Current Contract End Date	Contract Term for 2018 RFP	Begin Next RFP Process	Next Contract Start Date	Contract Term	Subsequent Contract Start Date
Service Group 1: Agency Concentration Bank	12/31/18	3 + two 2-year renewals	1/1/25	1/1/26	Max – 7 Years	1/1/33
Service Group 2: OST Concentration Bank	12/31/18	3 + one 2-year renewal	1/1/23	1/1/24	Max – 7 Years	1/1/31
Service Group 3: Local Branch Banking	12/31/18	3 years	1/1/21	1/1/22	Max – 7 Years	1/1/29
Service Group 4: Lockbox Processing Svcs.	12/31/18	6 years	1/1/24	1/1/25	Max – 7 years	1/1/32
Service Group 5: Merchant Card Processing	6/30/22	n/a	7/1/21	7/1/22	Max – 7 Years	7/1/29
Service Group 6: Stored Value Card	KeyBank 90-day Notice; FIS 10/18	3 + two 2-year renewals	1/1/25	1/1/26	Max – 7 years	1/1/33
Service Group 7: ATMs	90-day notice			N/A		
Service Group 8: Purchasing Card Program / Virtual Cards				Dependent upon Division of Accounting		
Service Group 9: Armored Car	Dependent upon completion of Service Groups 1 & 2, and the State's desire to pursue this service					



Rebidding Bank Services – Recommended Contract Terms

	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Service Group 1: Agency Concentration Bank	Blue	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green
Service Group 2: OST Concentration Bank	Blue	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green
Service Group 3: Local Branch Banking	Blue	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green	Green
Service Group 4: Lockbox Processing Services	Blue	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green	Green
Service Group 5: Merchant Card Processing	Blue	Blue	Blue	Blue	Blue	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green
Service Group 6: Stored Value Card	Blue	Orange	Orange	Orange	Orange	Orange	Orange	Orange	Green	Green	Green	Green	Green	Green	Green
Service Group 7: ATMs	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue	Blue
Service Group 8: Purchasing Card Program / Virtual Cards															
Service Group 9: Armored Car															

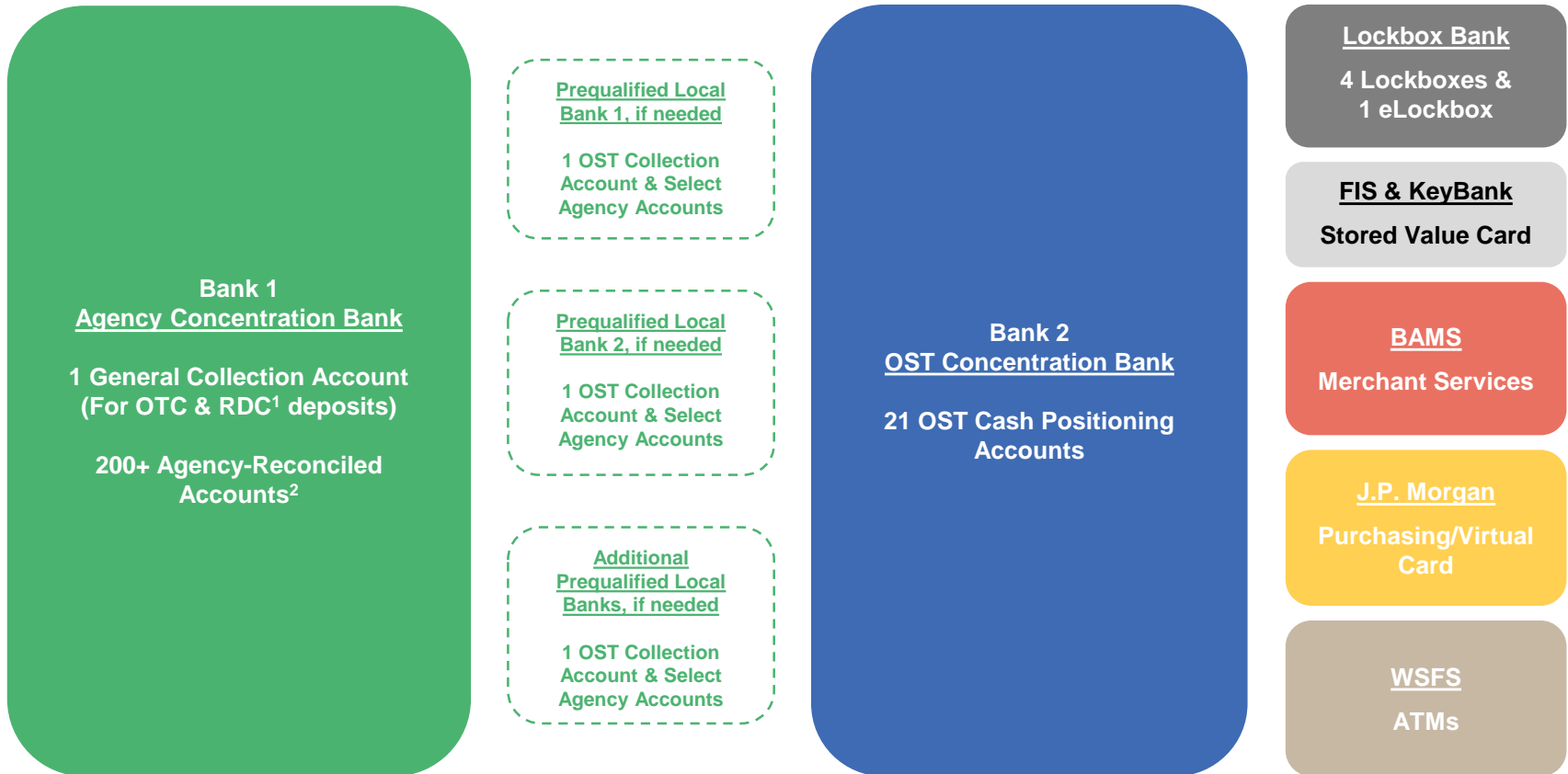
Key

- Current contract term
- Next contract term with all renewals (recommended)
- Subsequent contract term with all renewals (recommended)



Anticipated Structure after 2017/18 RFP

- Based on what will be rebid in the upcoming 2017/18 RFP, PFM anticipates the State's banking structure to be as follows:



¹ OTC = Over-the-Counter Branch Deposits / RDC = Remote Deposit Capture.

² Accounts in Agency Concentration Bank do not include DeIDOT or lockbox accounts.



Section 4: Operational Enhancement Recommendations



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Section 4: Operational Enhancement Recommendations

Introduction

- Section 4 provides an assessment of key cash management practices and highlights operational enhancements that PFM recommends. These include:
 - Physical Deposit Needs (Branch & Vault Deposits)
 - Remote Deposit Capture
 - Armored Car Services / Remote Cash Safes
 - Lockbox
 - Incoming Electronic Receipts
 - International Transactions
 - Disbursements – Centralized Check Disbursements
 - Disbursements – Agency Check Disbursements
 - Fraud Prevention Services
 - Merchant Card Processing
 - Online Gateways and Ability to Collect Funds
 - PCI Compliance
 - ERP / Internal Systems
 - DTI / Data Security
 - File Transfers / Standardization of Files
 - Cash Concentration of Funds
 - Collateralization of Deposits
 - Purchasing Card Program
 - Department of Transportation (DeIDOT)
- These observations and recommendations are predominantly operational in nature and address issues specifically identified by one or more State agencies, represent best practices, factors that need to be considered when rebidding banking services, or enhancements to increase the efficiency of cash management services.
- A summary of the recommendations is presented at the top of each page with a color-coded box that identifies its priority as shown below. Additional background information and rationale are provided below each recommendation.

■ **HIGHEST PRIORITY**

■ **INTERMEDIATE PRIORITY**

■ **LOWEST PRIORITY**



Physical Deposit Needs (Branch & Vault Deposits)

- The State relies on local bank branches for deposit processing. Deposits are processed at PNC Bank, Citizens Bank, and M&T Bank.
- A summary of monthly deposit activity for March 2017 appears at the bottom of this page with supplemental details by State agencies on the next several pages.
- Annually, the State deposits approximately \$25.8 million in currency and coin and 480,000 checks at local branches.
- The proposed Structural Recommendation addresses this need by identifying a bank (Service Group 1) to accept deposits for agency accounts and the central FSF account. It is the expectation that Bank 1 will have an extensive branch network that will meet the needs of the majority of the State's locations, however there may be some remote locations that need or desire a branch in closer proximity. The Structural Recommendation calls for additional banks to be pre-qualified as eligible providers allowing individual locations to have several options available.
- In addition to an extensive branch network, PFM recommends the State consider or expand the use of armored car services, remote deposit capture, and remote cash safes.

PNC Bank ¹	
# of Departments	12
# of Deposits	1,474
\$ of Cash Deposits	\$684,340
Checks Deposited	15,041
Average Cash Deposit	\$464

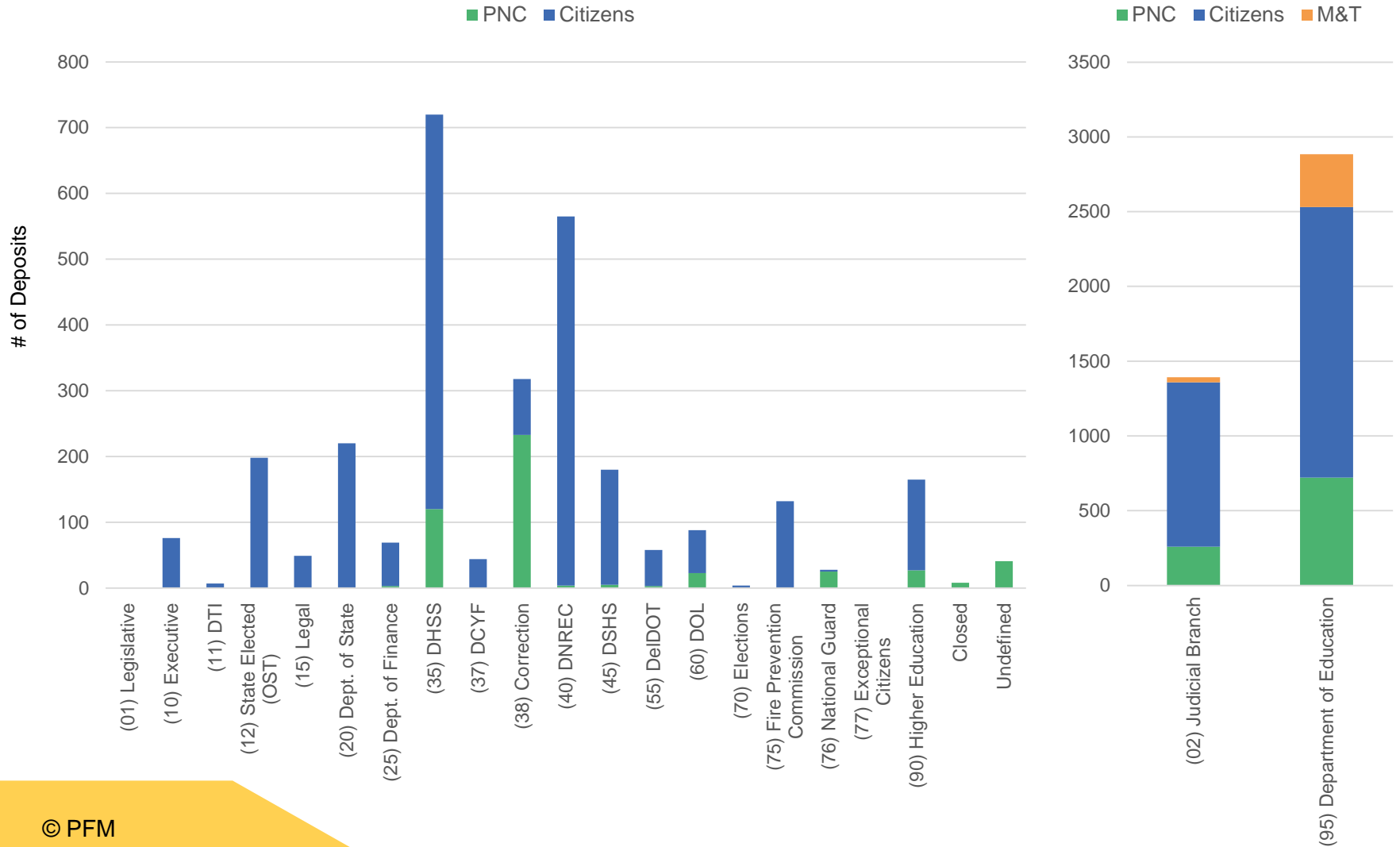
Citizens Bank ¹	
# of Departments	21
# of Deposits	5,387
\$ of Deposits (cash/check)	\$41,048,567
\$ of Cash Deposits	\$1,595,082
Checks Deposited	Unknown
Average Deposit	\$7,620
Average Cash Deposit	\$296

M&T Bank ¹	
# of Departments	2
# of Deposits	388
\$ of Cash Deposits	\$152,351
Checks Deposited	819
Average Cash Deposit	\$393

¹ Data from March 2017 Analysis Statement



Physical Deposit Needs – # of Deposits by Department





Physical Deposit Needs (PNC Bank)

Department	Division	# of Deposits	Currency Deposited	Checks Deposited
(02) Judicial Branch	Justice of The Peace Court	90	\$50,390	39
(02) Judicial Branch	Superior Court	119	\$54,880	624
(02) Judicial Branch	Court of Common Pleas	30	\$63,620	172
(02) Judicial Branch	Family Court	21	\$6,200	24
(10) Executive Branch	Office of Management And Budget	1	\$20	1
(25) Department of Finance	State Lottery Office	3	-	3
(35) Department of Health & Social Services	Child Support Enforcement	64	\$200	79
(35) Department of Health & Social Services	Developmental Disabilities Services	3	-	3
(35) Department of Health & Social Services	State Service Centers	3	-	7
(35) Department of Health & Social Services	Substance Abuse and Mental Health	5	\$690	18
(35) Department of Health & Social Services	Social Services	3	-	3
(35) Department of Health & Social Services	Visually Impaired	42	\$6,840	22
(38) Department of Correction	Department of Corrections (MCCC Inmate Account)	1	\$120	2
(38) Department of Correction	Prisons	177	\$23,260	4,384
(38) Department of Correction	Community Corrections	53	\$6,680	3,135
(38) Department of Correction	Administration	2	\$530	-
(40) Department of Natural Resources	Office of Natural Resources	4	-	20
(45) Department of Safety & Homeland Security	State Police	4	\$163,990	12
(45) Department of Safety & Homeland Security	Division of Alcohol And Tobacco Enforcement	1	\$70	-
(55) Department of Transportation	Office of the Secretary	3	\$680	1
(60) Department of Labor	Unemployment Insurance	22	\$580	254
(60) Department of Labor	Industrial Affairs	1	-	4
(76) National Guard	Delaware National Guard	25	\$4,900	181

Source: March 2017 Analysis Statement



Physical Deposit Needs (PNC Bank)

Department	Division	# of Deposits	Currency Deposited	Checks Deposited
(90) Department of Higher Education	Delaware Technical And Community College	27	\$4,210	30
(95) Department of Education	Milford School District	28	\$17,460	361
(95) Department of Education	Seaford School District	254	\$46,360	244
(95) Department of Education	Smyrna School District	35	\$19,100	784
(95) Department of Education	Appoquinimink School District	137	\$78,110	2,783
(95) Department of Education	Christina School District	62	\$93,380	915
(95) Department of Education	Woodbridge School District	170	\$29,780	657
(95) Department of Education	Campus Community School	35	\$4,510	125
Undefined	Undefined	41	\$7,660	94
Closed Accounts	Closed	8	\$120	60
Total		1,474	\$684,340	15,041

Average cash deposit at PNC Bank: \$464



Physical Deposit Needs (Citizens Bank)

Department	Division	\$ of Deposits	Total Deposits (Cash and Checks)
(01) Legislative	-	\$238	1
(02) Judicial Branch	-	\$1,682,074	1,099
(10) Executive Branch	-	\$1,007,016	75
(11) Department of Technology & Information	-	\$155,902	7
(12) State Elected Officials	-	\$11,917,318	198
(15) Legal	-	\$434,885	49
(20) Department of State	-	\$6,298,360	220
(25) Department of Finance	-	\$3,757,314	66
(35) Department of Health & Social Services	-	\$4,174,095	600
(37) Department of Children, Youth & Families	-	\$172,963	44
(38) Department of Correction	-	\$270,025	85
(40) Department of Natural Resources	-	\$1,078,435	561
(45) Department of Safety & Homeland Security	-	\$1,146,659	175
(55) Department of Transportation	-	\$9,918	47
(55) Department of Transportation	-	\$319,483	8
(60) Department of Labor	-	\$326,575	65
(70) Elections	-	\$1,808	4
(75) Fire Prevention Commission	-	\$347,124	132
(76) National Guard	-	\$680	3
(77) Exceptional Citizens	-	\$25	1
(90) Department of Higher Education	Delaware State University	\$27,617	2
(90) Department of Higher Education	Delaware Technical And Community College	\$4,832,902	136
(95) Department of Education	-	\$157,793	47

Source: March 2017 FSF Data



Physical Deposit Needs (Citizens Bank)

Department	Division	\$ of Deposits	Total Deposits (Cash and Checks)
(95) Department of Education	Pupil Transportation	\$520	8
(95) Department of Education	Academia Antonia Alonso	\$165,093	9
(95) Department of Education	Delaware Advisory Council On Career And Technical Education	\$18,398	6
(95) Department of Education	First State Military Academy	\$28,426	25
(95) Department of Education	Delaware Design-Lab High School	\$8,897	12
(95) Department of Education	Caesar Rodney School District	\$74,184	18
(95) Department of Education	Freire Charter School	\$47,640	2
(95) Department of Education	Capital School District	\$24,839	22
(95) Department of Education	Lake Forest School District	\$128,888	128
(95) Department of Education	Laurel School District	\$11,584	4
(95) Department of Education	Cape Henlopen School District	\$165,932	161
(95) Department of Education	Milford School District	\$28,761	12
(95) Department of Education	Seaford School District	\$13,107	18
(95) Department of Education	Smyrna School District	\$160,122	206
(95) Department of Education	Appoquinimink School District	\$198,380	341
(95) Department of Education	Brandywine School District	\$81,080	30
(95) Department of Education	Red Clay School District	\$44,896	16
(95) Department of Education	Christina School District	\$99,443	13
(95) Department of Education	Colonial School District	\$48,806	8
(95) Department of Education	Woodbridge School District	\$18,160	13
(95) Department of Education	Indian River School District	\$232,340	101
(95) Department of Education	New Castle County VoTech School	\$74,157	118
(95) Department of Education	POLYTECH School District	\$69,090	85

Source: March 2017 FSF Data



Physical Deposit Needs (Citizens Bank)

Department	Division	\$ of Deposits	Total Deposits (Cash and Checks)
(95) Department of Education	Sussex County Technical School District	\$44,815	73
(95) Department of Education	Delaware Academy of Public Safety and Security	\$10,292	5
(95) Department of Education	Las Americas ASPIRA Academy	\$47,678	21
(95) Department of Education	The Charter School of Wilmington	\$107,668	6
(95) Department of Education	Positive Outcomes Charter School	\$20,544	4
(95) Department of Education	East Side Charter School	\$154,681	5
(95) Department of Education	Campus Community School	\$17,871	36
(95) Department of Education	Thomas A. Edison Charter School	\$88,365	27
(95) Department of Education	Sussex Academy of Arts and Sciences	\$8,266	6
(95) Department of Education	Delaware Military Academy	\$60,444	52
(95) Department of Education	Family Foundations	\$253,385	8
(95) Department of Education	Kuumba Academy Charter School	\$13,188	1
(95) Department of Education	Academy of Dover Charter School	\$21,508	1
(95) Department of Education	Odyssey Charter	\$107,720	44
(95) Department of Education	Providence Creek Academy Charter School	\$73,754	39
(95) Department of Education	MOT Charter School	\$50,963	11
(95) Department of Education	Newark Charter School	\$98,731	59
(95) Department of Education	Gateway Lab School	\$6,742	8
Total		\$41,048,567	5,387

Average deposit at Citizens Bank: \$7,620 (includes cash and checks)

Average deposit at Citizens Bank: \$296 (cash only)



Physical Deposit Needs (M&T Bank)

Department	Division	# of Deposits	Currency Deposited	Checks Deposited
(02) Judicial Branch	Justice Of The Peace Court	26	\$20,610	4
(02) Judicial Branch	Court Of Common Pleas	5	\$14,145	21
(02) Judicial Branch	Family Court	2	-	2
(95) Department of Education	Laurel School District	63	\$8,570	38
(95) Department of Education	Cape Henlopen School District	176	\$25,919	241
(95) Department of Education	Colonial School District	43	\$70,650	89
(95) Department of Education	Sussex County Technical School District	73	\$12,457	424
Total		388	\$152,351	819

Average cash deposit at M&T Bank: \$393



Physical Deposit Needs (Branch & Vault Deposits)

- i. Consider the use of services that minimize the current heavy reliance on bank branches.
 - a. Establish state-wide contracts with one or more armored car vendors to minimize the risk of employees transporting cash to banks. ■
 - b. Use remote deposit capture services for locations with high check volume. Consider mobile deposit technology for small volume locations. ■
 - c. Use remote cash safes for locations that process coin and currency. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• In recent years, banks have shifted significant resources from physical branches to online technology. Because of the substantial cost of operating “brick and mortar” locations, banks have been closing branches and encouraging high volume customers to move to online and electronic services. Organizations that continue to rely on bank branches have seen a steady increase in the cost of depositing checks and currency. Further, some banks have adopted policies where they no longer immediately verify deposits for business customers.• Two Divisions within the State use an armored car provider to transport deposits to the bank.<ul style="list-style-type: none">- The Division of Revenue uses Dunbar as their armored car provider and makes deposits at local Citizens Bank branches.- The Division of Motor Vehicles also uses Dunbar as their armored car provider. Deposits are taken to branch and vault facilities of M&T Bank.• We acknowledge that several other agencies have tried and rejected the use of armored car services in the past and we understand that it may not be a viable solution for every depositing location.	<ul style="list-style-type: none">• We encourage the State to consider the use of services that minimize the current heavy reliance on bank branches. These solutions can be implemented on a location-by-location basis. Suggested approaches are:<ul style="list-style-type: none">- Establish a state-wide contract with one or more armored car vendors that agencies can use to take their deposits to a bank vault. Recent pricing suggests a once weekly pick-up would cost \$130 to \$150 per month, per location.- Use remote deposit capture services for locations with high check volume. Consider mobile deposit technology for small volume locations.- Use remote cash safes for locations that process coin and currency.• The combined use of remote deposit capture services (for checks), a cash safe (for coin and currency) and an armored car service (to periodically collect funds from the cash safe) could be a good solution to the challenges depositing funds for some agencies.• Although these solutions may introduce new fees, the incremental costs would be partially, if not entirely, offset by lower fees in other areas (i.e. vault deposit or remote deposit capture). Furthermore, these solutions may reduce the time spent by employees transporting deposits to a branch and waiting for a bank teller.



Remote Deposit Capture

- i. Implement remote deposit capture service at more locations to free employees from the time consuming and potentially risky practice of transporting deposits to the bank. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">Remote deposit capture (RDC) is a cash management service that allows a bank customer to deposit checks electronically from their office. Since the passage of the Check Clearing for the 21st Century Act (Check 21) in 2003, banks have been heavily marketing the use of remote deposit technology. The banks benefit because they need fewer employees at local branches and are able to shift some of the manual work associated with depositing checks to their customers.The RDC technology converts paper checks into Image Replacement Documents (IRDs), which are then cleared through the commercial banking system. This eliminates the need for State employees to transport checks to a local bank branch or have an armored car service pick up check deposits.Image Cash Letter (ICL) is a similar process for high volume operations. With this service, the IRDs are sent to the bank for processing by file transfer.There are a number of benefits including the potential for lower cost, faster processing, better availability of funds and a reduced need for local branch banks.Several disadvantages were identified during by PFM during our meetings with State agencies, including:<ul style="list-style-type: none">It takes more staff time to run checks through a machine rather than having the bank handle the workThere are complications when a department uses an accounting and/or cashing system to process deposits, and the need to integrate remote deposit into that process to enhance efficiency	<ul style="list-style-type: none">The Government Finance Officers Association (GFOA)¹ recommends that governments consider remote deposit capture to improve efficiency and effectiveness of accounts receivable processing.In general, the State relies heavily on employees making deposits to local branches. By leveraging RDC technology, the State may be able to free employees from the time consuming and potentially risky practice of transporting deposits to the bank. However, RDC does not solve the problems related to handling coin and currency and would not be a complete solution for agencies that handle both checks and cash.Effective implementation of RDC will require agencies to provide operator training and strong internal controls. During our meetings, we did not hear from agencies that these requirements would be an impediment.During the discovery phase, multiple agencies were identified as potential candidates for the use of RDC technology and asked for follow-up materials. These agencies included:<ul style="list-style-type: none">Administrative Office of the CourtsAdditional locations at the Department of Natural Resources and Environmental Control (DNREC)Department of AgricultureDHSS – Division of Services for Aging and Adults with Physical Disabilities (DSAAPD)DHSS – Division of State Service Centers (DSSC)DHSS – Division of Management Services and Audit & Recovery Management Services (DMS / ARMS)DHSS – Division of Long Term Care Residents Protection (DLTCRP)Various Schools (i.e. Lake Forest)Department of Motor Vehicles



Remote Deposit Capture (Costs)

Observation

- The State initially used BNY Mellon as its primary RDC provider due to enhanced reporting capabilities. Over time, an RDC relationship with Citizens Bank has also been established.
- The State is currently using RDC or ICL at 18 organizations:
 - Department of Education
 - DelMar School District
 - Milford School District
 - Finance Section
 - Department of Finance
 - Division of Accounting
 - Division of Revenue (ICL)
 - Department of Health & Social Services | Division of Child Support Services (ICL)
 - Department of Insurance
 - Department of Labor | Division of Industrial Affairs
 - Department of Natural Resources & Environmental Control
 - Department of State
 - Office of the Secretary
 - Public Service Commission
 - Division of Professional Regulation
 - Division of Historical & Cultural Affairs
 - Commission of Veterans Affairs
 - Office of the State Bank Commissioner
 - Department of Transportation
 - Executive Branch | Office of Management and Budget
 - Other Elected Officials | Office of the State Treasurer
- The Division of Accounting receives files from the banks with all RDC deposits. A location identification code is used to identify the agency making the deposit. This makes the use of RDC very efficient.

Suggestion / Recommendation

- The fees charged by banks to process checks by RDC are generally lower than the cost to deposit checks at the bank branch. This can make the technology a good solution for agencies that want to minimize the time consuming process of transporting checks to the bank. However, for agencies with low monthly check volume, the fixed monthly maintenance and equipment charges can make RDC an expensive approach.
- Using current pricing, the breakeven between the physical deposits of checks versus depositing with RDC is approximately 3,300 checks per month.
- The State will need to weigh the potentially higher per check cost of RDC for low volume agencies against the potential benefits of time savings and the reduction of risk to employees that are transporting deposits.

Current RDC Costs – BNY Mellon

- Remote Check Deposit Web License: \$450 per year, per relationship
- Remote Check Deposit Maintenance: \$100 per month, per organization
- Check Image Capture Per Check: \$0.07 per item

Current RDC Costs – Citizens Bank

- EZ Deposit by MM Mthly Maint: \$60 per month, per organization
- EZ Deposit per IRD Dep Item: \$0.15 per item
- EZ Deposit Per Deposit: \$0.70 per deposit
- There may be an opportunity to receive bulk discounts on RDC scanners if orders for multiple agencies are processed together.



Armored Car Services / Remote Cash Safes

- i. Provide a centralized contract that State agencies can use to obtain armored car / remote cash safe solutions. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The State deposits cash and currency with 3 primary banking partners. The majority of these deposits are made at branch locations.<ul style="list-style-type: none">- Approximately \$18.7 million is deposited annually at Citizens Bank branches- Approximately \$6.0 million is deposited annually at PNC Bank branches- Approximately \$1.2 million is deposited annually at M&T Bank branches• The State relies heavily on employees for transporting deposits to bank branches in lieu of using an armored car. This approach has several drawbacks:<ul style="list-style-type: none">- Employees are spending time to transport deposits, wait in line to make deposits, and in many cases, waiting to have deposits verified by the teller.- Transporting cash without a security escort puts the employee at risk of physical harm.• The Division of Revenue and Division of Motor Vehicles are currently using Dunbar's armored car service. Other agencies have used armored car services in the past but did not have positive experiences.• Unless the State determines that it will no longer accept payments in cash, cash handling will continue to be a pain point for agencies and OST. Financial institutions have invested in new technology that can minimize the cash challenge; the use of remote cash safes – also called “smart safes” is one approach that could be of value to the State.	<ul style="list-style-type: none">• We recommend that the State establish a master contract for armored car services for those agencies that choose to use the service. This would be a resource available to agencies, but would not be mandated.• In addition to the use of armored car services, State agencies may benefit from the use of remote cash safes or “smart safes”. With this service, an armored car provider would install a safe in the State agency office and the safe communicates deposit totals directly with the bank. The depositor feeds cash into the safe and immediately receives provisional credit at the bank. Periodically, the armored car service collects the cash from the safe and transports it to the bank. Since these safes can hold high volumes of cash, the armored car vendor does not need to pick up cash each day; in many cases, a weekly pickup is sufficient.• Using the remote cash safe and remote deposit capture (to scan checks) could eliminate the need for an employee to go to the bank.• The cost of the remote cash safe solution is approximately \$325 to \$500 per month, per location.



Comprehensive Cash Handling Services

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• OST asked PFM to research WSFS's Cash Connect program. Based on our preliminary review, we believe that this could be a viable solution for some of the State's cash handling needs.• While many banks have been trying to reduce the amount of cash they process, Cash Connect has introduced a unique approach to ATM and cash safe logistics. The Cash Connect service has the following features:<ul style="list-style-type: none">• Contracts with multiple armored carriers, which may lower costs, improve service and reduce the amount of time needed for vendor management.• Supports deposits from multiple departments to multiple banks out of the same cash safe.• Offers an integrated ATM, payment kiosk and remote cash safe.• PFM was not able to obtain pricing information from Cash Connect, so we are unable comment on the cost of the services and if it is a cost-effective solution for the State. Pricing for this type of comprehensive service will have many variables such as safe capacity, number of pickup locations, frequency of pickups, type of equipment needed, etc.• PFM is not aware of other vendors that offer the comprehensive scope of services included in the Cash Connect solution. However, many banks work with armored car companies to service remote cash safes and ATMs, so they would be potential bidders. There are also firms that offer payment kiosks that may be interested in proposing.	<ul style="list-style-type: none">• If the State is interested in evaluating different cash handling services, including WSFS's Cash Connect, PFM recommends issuing a separate RFP for Armored Car & Cash Safe Services after the 2017/18 RFP has been issued, or upon its completion.• It will be necessary to provide the proposers with pickup locations and frequency, and desired equipment functionality. Considerable information from State agencies about potential applications for this service will need to be done before issuing an RFP.



Lockbox

- i. Meet with lockbox specialists at PNC to determine if there is a more efficient or cost effective way to collect information for the Division of Unemployment. There is currently a high cost associated with key-entering data and there may be a more automated solution. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• Lockbox services are designed to expedite the collection of paper-based payments and provide timely payment information to update accounts receivables records. For most governments, lockbox services should increase payment and posting accuracy, improve cash flow by reducing processing time between delivery of mail and depositing of payments, and increase staff productivity by freeing personnel from the labor-intensive process of manually handling mail, making daily deposits, and posting manual payments.• The State has three lockbox providers:<ul style="list-style-type: none">- The Division of Corporations collects Franchise Tax payments at J.P. Morgan- The Division of Unemployment collects Training Tax and Unemployment Insurance payments at PNC Bank- Pension collects insurance payments at BNY Mellon	<ul style="list-style-type: none">• We recommend that OST and the Division of Unemployment meet with lockbox specialists at PNC to determine if there is a more efficient or cost effective way to collect necessary information from remittance information sent to the lockbox. Key areas for consideration are:<ul style="list-style-type: none">- The need for the key-entered data;- If some or all of the data can be collected in an alternative format (i.e. an OCR scan line);- If it is possible to have the payers remit these payments by ACH instead of check;- If there is a way that data can be collected directly from the payer through an online platform.• Because of the substantial cost associated with key-entering data, it is possible that a change in how these payments are processed could offset the costs associated with development and conversion to a more automated process.• PFM provided pricing information for each lockbox in Section 5.



Incoming Electronic Receipts

- i. Consider implementing a portable solution for incoming electronic receipts, such as UPICs. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The State receives over 228,000 ACH transactions annually and needs to identify which State agency should receive the funds. Because there is often limited information sent along with the payment, it can be quite difficult to identify which agency account should be credited.• A simple solution to this challenge would be to open an account for each beneficiary. The payer would then simply send the ACH to that account and the State would know exactly who the payment is for. The very significant downside to this approach is the cost of maintaining and managing all those accounts. The cost is prohibitive.• Banks have come up with a more efficient solution. They have developed a process that uses multiple “alias” account numbers within a single bank account. A unique alias account number is assigned to each beneficiary. Payers send ACH payments to the alias account number and the bank reports to the State the details about incoming transactions by alias account number. This approach allows the State to easily identify the recipient of each ACH.• The State currently uses BNY Mellon to facilitate incoming ACH receipts. BNY Mellon’s product, Electronic Credit Collections (ECC), allows OST to use a single bank account to receive electronic transfers for hundreds of different beneficiaries.	<ul style="list-style-type: none">• ECC or a similar service is typically the most cost effective solution and most efficient means of managing incoming ACH transactions for a large number of recipients.• Unfortunately, BNY Mellon’s ECC product uses banking instructions that are unique to that bank. If the State transitions these services to a different provider, the current alias account numbers can not be moved to the new provider.• The industry has created a portable solution referred to as a Universal Payment Identification Code (UPIC), which serves in a similar fashion as BNY Mellon’s ECC solution.<ul style="list-style-type: none">- UPICs look and act like bank account numbers with a universal routing/transit number- UPICs are portable and would remain with the State if the underlying bank account number or banking relationship changes- UPICs were originally designed as a fraud prevention tool (the true bank account number is masked), but we have seen a growing use of the UPIC technology for managing ACH activity for organizations with a large number of recipients• PFM recommends the State consider implementing UPICs as a more portable solution for incoming electronic receipts.



International Transactions (ACHs and Checks)

- i. Explore ways that International ACH Transactions (IATs) could be of value to State agencies that either receive or send payments internationally by check. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The Division of Child Support Services (DCSS) receives international checks (Canadian dollars, British pounds, and other currencies).<ul style="list-style-type: none">– Foreign checks cannot be deposited with current remote deposit capture systems, so they are transported to a local PNC branch by a bonded courier for processing.– DCSS has experienced a delay in the availability of funds from these deposits.– The Pension Division writes 10 international checks a month to pension recipients.• The Office of Unclaimed Property (Division of Revenue) disburses payments to owners of property that has been escheated to the State. Periodically, the payments are sent to property owners outside the U.S.• Moving funds internationally has become more challenging because of Bank Secrecy Act (BSA) and Foreign Assets Control (OFAC) regulations. At the request of the OFAC, the Electronic Payments Association (NACHA) has created a new code that will be required for all ACH payments entering or leaving the U.S. The new code will require additional data elements to help with OFAC screening and to help financial institutions identify suspicious payments. This new information will also make it easier for the recipient of a payment to identify the source of the funds.	<ul style="list-style-type: none">• OST should talk to PNC Bank about the bank's ability to receive and process International ACH Transactions (IATs) and explore ways that this new service could be of value to State agencies that either receive or send payments internationally.<ul style="list-style-type: none">– IATs may be a more efficient method for DHSS to collect payments than the current practice of receiving paper checks. An IAT transaction may provide for more timely availability and conversion of funds. Because these are incoming payments and the payer would be initiating the IAT, the Division would need to discuss this option with current payers.– IATs could also be used for international payments made by the Office of Unclaimed Property.



Disbursements – Centralized Check Disbursements

- i. Remove Controlled Disbursement from Child Support Account (-2029) if no longer issuing checks from this account. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• For the majority of checks issued by the State, a centralized process is facilitated by the Division of Accounting. According to Chapter 6 of the State's Budget & Accounting Manual, the standard approval process is as follows:<ul style="list-style-type: none">- Individual agencies submit payment vouchers to the Division of Accounting; purchase orders are required for any purchases exceeding \$5,000;- The Division of Accounting must approve all purchase orders over \$5,000; the Budget office (OMB) must also approve POs greater than \$10,000;- Once approved, Treasury disburses payments to recipients.• PNC is the State's primary check disbursement bank. Approximately 900,000 checks are drawn on PNC Bank each year.• Controlled Disbursement is used on 8 accounts representing 76% of the State's March 2017 check disbursement activity at PNC. The use of Controlled Disbursement services allows the State to determine the dollar value of checks clearing the account each day. The data is available early enough in the day that OST can use the information to maximize investments. The accounts currently using Controlled Disbursement are:<ul style="list-style-type: none">- Vendor Payment Account (-5707)- Payroll Account (-5715)- Revenue Tax Account (-1974)- Welfare Account (-1982)- Division of Unemployment (-2002)- Pension Account (-3802)- Child Support (-2029)- Abandoned Property (-0925)	<ul style="list-style-type: none">• The processing and disbursement of checks through FSF appears to be a very efficient approach.• The accounts on which checks are written by the Division of Accounting use positive pay for fraud prevention. As described in the Positive Pay section of this report, these accounts are candidates for payee positive pay service, which is the next level of fraud protection.• We noted that the Child Support Account (-2029) has Controlled Disbursement service. Over the last 12 months, there have been no checks issued from this account. By removing Controlled Disbursement from this account, the State would save \$660 annually.



Disbursements – Agency Check Disbursements

- i. Require a “standard” set of fraud prevention services on agency accounts from which State funds are disbursed. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• Across the State there are over 150 accounts with check issuing capabilities. Checks on most of these accounts are not processed through FSF; they are issued directly by one of the agencies.• The majority of these checks are issued against PNC checking accounts, but some checks are also disbursed on Citizens Bank and M&T Bank.• Some agencies disbursing checks outside of FSF include:<ul style="list-style-type: none">- Unclaimed Property- Revenue Refunds- Unemployment- Foster Care- Correction Institutions• Many of the agency check writing accounts do not have standard fraud control services such as positive pay.• Currently, there is one account at PNC bank that has a significant number of non-account holders cashing checks at local branches. The State is currently being charged \$2 for each check drawn on the Division of Health and Human Services' Welfare account costing \$19,000 annually.	<ul style="list-style-type: none">• Based on our discussions with State agencies, there are operational reasons for disbursing checks outside the FSF system:<ul style="list-style-type: none">- The most common reason is the need to instantly issue a check. For example, the Department of Correction's need to issue a payment upon an inmate's release.- In addition, some processes, like payroll, are more efficient if the checks are issued directly by the agency instead of being processed through FSF.• The latitude for agencies to manage some or all of their check writing process is helping the agencies to efficiently meet their operational requirements and to deliver good customer service to their constituents. However, some of these accounts were not set up with appropriate fraud prevention tools. We recommend that OST require a “standard” set of fraud prevention services be used on accounts from which State funds are disbursed. These include:<ul style="list-style-type: none">- ACH Debit Block- Check Block / Post No Check- Positive pay- Payee positive pay• The Division of Health and Human Services is incurring a significant cost to the State by allowing non-account holders to cash checks at local branches. This requirement needs to be included in the RFP for Banking Services and is also an example of a service that the State may want to consider “allocating” to the State agency (<i>See Section 2: Allocation of Banking Costs to Departments</i>).



Fraud Prevention Services

Introduction

- Article 4¹ of the Uniform Commercial Code (UCC) regulates and defines the responsibilities of counterparties in business and banking transactions. This section of the code states that the liability and loss in a fraudulent transaction is split between the counterparties in a transaction based on each party's due diligence and negligence.
- According to the GFOA², advancement in technology has allowed greater opportunity for the ability to commit fraud. The banking industry has developed several fraud prevention tools, including:
 - **Positive pay** – a service in which the bank compares checks received for payment against the record of checks issued by the payer. If an item does not match to the record of checks (including date, check number and amount), the check is identified as an exception item.
 - **Payee positive pay** – an enhancement to positive pay, validating the payee name on the check in addition to the date, check number and amount.
 - **ACH blocks / filters** – a service that is used to stop an attempt by an outside entity to process an ACH debit and remove funds from an account without permission. ACH blocks prevent all disbursements from an account and ACH Filters (or ACH Positive Pay) prevent disbursements that do not match a list of authorized transactions.
 - **Reconciliation tools** – a service that assists in performing period end reconciliation of bank accounts. Under partial reconciliation services, a government is provided a paid-item file of the checks that cleared an account during the reconciliation period. Under full reconciliation services, a file is provided with all issued checks and is matched against the items that have cleared the account.
 - **Intra-day Access** – service that allows an organization to see bank account transactions that occur at various times during the day.
 - **Universal Payment Identification Codes (UPIC)** – accounts are assigned a UPIC in place of the actual bank account number so that the true account number is not disclosed. This service can also be used as a means of identifying incoming ACH transactions from various sources across a government.

¹ https://www.law.cornell.edu/ucc/4/part_4

² Government Finance Officers Association, <http://www.gfoa.org/bank-account-fraud-prevention>



Positive Pay

- i. Add Positive Pay to any accounts with a high volume of check disbursement activity. ■

Observations	Suggestion / Recommendation																				
<ul style="list-style-type: none"> Check fraud is on the rise. The AFP 2017 Payments Fraud and Control Survey of corporation and government treasuries found that 75% of organizations experienced check fraud in 2016, with 20% reporting an increase from the prior year. Further, check fraud is the primary source of fraud reported by these institutions; over 80% of the fraud attempts reported by survey respondents with annual revenue over \$1 billion related to check fraud¹. <table border="1" style="margin: 10px auto; width: 80%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #2c5e8c; color: white; text-align: center;">Payment Method Subject to Attempted and/or Actual Payment Fraud in 2016 for Organizations with Annual Revenue of At Least \$1 Billion¹</th> </tr> </thead> <tbody> <tr> <td>Checks</td> <td style="text-align: center;">81%</td> </tr> <tr> <td>Wire transfers</td> <td style="text-align: center;">49%</td> </tr> <tr> <td>Commercial Credit Cards</td> <td style="text-align: center;">29%</td> </tr> <tr> <td>ACH Debits</td> <td style="text-align: center;">31%</td> </tr> <tr> <td>ACH Credits</td> <td style="text-align: center;">12%</td> </tr> </tbody> </table> <ul style="list-style-type: none"> Positive pay is a service used to combat fraud and is considered “the single best fraud prevention tool available” by the GFOA². With this service, the State provides the bank with a file of checks issued and the bank matches checks presented for payment against this file. Any check that does not match with the positive pay file is reported to the State. The State can then decide to pay or return the item. If a government’s bank offers positive pay and the government chooses not to accept it, the government will be liable for fraudulent transactions. 	Payment Method Subject to Attempted and/or Actual Payment Fraud in 2016 for Organizations with Annual Revenue of At Least \$1 Billion ¹		Checks	81%	Wire transfers	49%	Commercial Credit Cards	29%	ACH Debits	31%	ACH Credits	12%	<ul style="list-style-type: none"> We recommend that the State review its check disbursement accounts and add appropriate fraud prevention services. Accounts with a high volume of check disbursement activity during March 2017 that do not have positive pay include: <ul style="list-style-type: none"> ○ Financial Aid (-5727) – 3,750 checks paid ○ Inmate Account (-3566) – 1,068 checks paid ○ State Service Centers (-3785) – 757 checks paid ○ DHSS (-0015) – 729 checks paid ○ Second Injury & Contingency Fund (-0664) – 551 checks paid ○ SCI Inmate Account (-5647) – 485 checks paid ○ HRYCI Offender Account (-5833) – 384 checks paid The table below provides the potential cost to add positive pay service at each of the State’s three disbursement banks (PNC, M&T and Citizens): <table border="1" style="margin: 10px auto; width: 80%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="background-color: #2c5e8c; color: white; text-align: center;">Incremental Cost per Check</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">Citizens Bank³</td> <td style="text-align: center;">\$40 per account per month, \$0.04 per check</td> </tr> <tr> <td style="text-align: center;">M&T Bank³</td> <td style="text-align: center;">\$40 per account per month, \$0.01 per check</td> </tr> <tr> <td style="text-align: center;">PNC Bank</td> <td style="text-align: center;">\$70 per account per month, \$0.02 per check</td> </tr> </tbody> </table> The estimated cost of adding positive pay services to the accounts with a high volume of check disbursements (listed above) is approximately \$644 per month (\$7,728 annually) based on March 2017 volumes. 	Incremental Cost per Check		Citizens Bank ³	\$40 per account per month, \$0.04 per check	M&T Bank ³	\$40 per account per month, \$0.01 per check	PNC Bank	\$70 per account per month, \$0.02 per check
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¹ 2017 AFP Payments Fraud and Control Survey, <https://www.afponline.org>

² Government Finance Officers Association, <http://www.gfoa.org/bank-account-fraud-prevention>

³Source data from PFM pricing database



Positive Pay (cont.)

Observations

- Changes in the Uniform Commercial Code have limited a bank's liability for fraudulent items. If the bank recommends a security procedure such as positive pay and the State does not use that service, the State could be assuming full liability for any fraudulent items that would have been caught had the State employed the security procedure.
- There are a total of 149 accounts at PNC Bank on which checks were disbursed in March 2017. Positive pay is currently being used on only six accounts, which cover approximately 75% of the checks disbursed by the State. The accounts currently using positive pay include:
 - Abandoned Property Refunds (-0925)
 - Vendor Payment Account (-5707)
 - Revenue Tax Account (-1974)
 - Welfare Account (-1982)
 - Division of Unemployment Acct (-2002)
 - DECSS Positive Pay Account (-5046)
- There are a small number of checks written on M&T and Citizens Bank. Positive pay is not currently used on any of these accounts.

Suggestion / Recommendation

- We recommend that OST require a "standard" set of fraud prevention services be used on accounts from which State funds are disbursed. These include:
 - Positive pay
 - Payee positive pay
- The use of positive pay service would also help to catch incidences where the same check is "cleared" multiple times. This has occurred on Division of State Service Centers accounts.



Payee Positive Pay

- i. Consider adding payee positive pay to any accounts that have experienced check fraud in the past. ■

Observation

- Payee positive pay is an enhancement to standard positive pay services that matches the payee name on the disbursement check with the check issue file to confirm that it hasn't been altered.
- Payee positive pay was used on one State account in the past (WIC program). Benefits paid under the WIC Program are now made electronically and the account has been closed.
- Payee positive pay is not currently used on any accounts.

Suggestion / Recommendation

- The State should consider adding payee positive pay services to accounts on which checks are drawn, especially if there have been problems with check fraud in the past.
- The table below provides the cost to add payee positive pay service at each of the State's the three disbursement banks (PNC, M&T and Citizens):

Incremental Cost per Check	
Citizens Bank ¹	\$40 per account per month, \$0.06 per check
M&T Bank ¹	\$10 per account per month, \$0.01 per check
PNC Bank	\$15 per account per month, \$0.02 per check

- The estimated cost of adding payee positive pay services to accounts currently using positive pay is approximately \$1,173 per month (\$14,076 annually) based on March 2017 volumes.
- The estimated cost of adding payee positive pay services to the accounts with a high volume of check disbursements (listed above in the Positive Pay section) is approximately \$259 per month (\$3,108 annually) based on March 2017 volumes.



ACH Fraud Control

- i. Add some type of ACH fraud prevention service to every demand deposit account. Review ACH blocks/filters annually. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• ACH positive pay and ACH debit blocks/filters are services that help to protect against unauthorized electronic debits (disbursements).• ACH positive pay is currently being used on the following accounts at PNC Bank:<ul style="list-style-type: none">- OST Account (-0993)- OST Account (-7100)- OST Account (ACH Debit) (-6107)- Training Tax Lockbox (-4778)- Bail/NCC Prothonotary (-9522)• An ACH fraud filter is used on all BNY Mellon accounts, except the General Collections account.	<ul style="list-style-type: none">• It is considered to be a best practice by the GFOA¹ to have ACH positive pay or debit blocks/filters on all accounts. We recommend that the State add some type of ACH fraud prevention service to every demand deposit account.• It is also recommended by the GFOA to develop a formal plan to review ACH blocks / filters. This should be done on an annual basis, at a minimum.



Merchant Card Processing

- Over the last two decades, there has been a remarkable increase in the use of merchant cards. In modern commerce, merchant cards serve as a payment mechanism in lieu of cash or checks for millions of routine purchases as well as for many transactions that would otherwise be inconvenient, or perhaps impossible (for example, making retail purchases by telephone or over the Internet).
- According to a recent Consumer Payment Study conducted by TSYS, when consumers were presented with the question: “When given a choice, what payment form do you prefer?”, 40% selected credit, while 35% selected debit and 11% selected cash.
- In the United States, the total number of cards in circulation is now at more than 405 million or about 2.7 credit cards per consumer.
- Paying by credit card has become increasingly popular for both big purchases and routine bills alike. Offering this service to consumers has evolved from an additional convenience, to an expected means of payment acceptance.
- The tables below reflect the preferred payment type by age and total household income for 2015.

Preferred payment Type by Age

Most Preferred Payment Type	18-24	25-34	35-44	45-54	55-64	65 +
Credit card	22%	57%	52%	31%	34%	42%
Debit Card	47%	26%	30%	45%	35%	29%
Cash	18%	5%	8%	12%	17%	10%

Preferred payment Type by Income (before taxes)

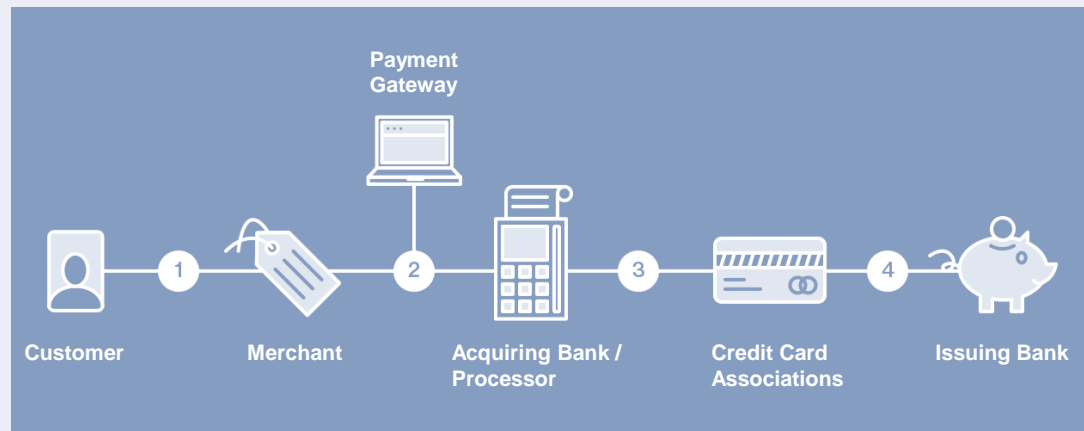
Most Preferred Payment Type	< \$25k	\$25k-\$50k	\$50k - \$75k	\$75k-<\$100k	\$100k - \$150k	>\$150k
Credit card	22%	23%	32%	55%	59%	69%
Debit Card	30%	47%	41%	28%	28%	19%
Cash	23%	18%	13%	6%	1%	1%

¹ TSYS US Consumer Payment Study, http://www.tsys.com/Assets/TSYS/downloads/rs_2016-us-consumer-payment-study.pdf



Merchant Card Processing – Players¹

- **Credit Card Association (Card Brand)** – The company that creates credit cards and sets the rules (i.e. Visa, MasterCard, Discover). The primary responsibilities of the Card Associations are to govern the members of their associations, including interchange fees and qualification guidelines, act as the arbiter between issuing and acquiring banks, maintain and improve the card network and their brand.
- **Issuing Bank** – Financial Institution that issues a credit or debit card to consumers.
- **Merchant** – Any business or governmental entity that maintains a merchant account that enables them to accept credit or debit cards as payment from consumers (cardholders) for goods or services provided. When the State of Delaware accepts merchant card payments, it is the merchant.
- **Acquiring Bank / Processor** – The acquiring bank or processor is a registered member of the card association. Often referred to as a merchant bank, the acquiring bank contracts with merchants to create and maintain merchant accounts. Acquiring banks / processors provide merchants with equipment and software to accept cards and handle customer service and other necessary aspects involved in card acceptance. **Bank of America Merchant Services (BAMS) is now the State's Processor.**
- **Payment Gateway** – An online portal that routes transactions to the acquiring bank, often with the case of an online shopping cart. For the State of Delaware, **Velocity Payment Services is the gateway used for the State's transactions processed through Govolution.**
- **PCI Security Standards Council** – Administers PCI DSS (Payment Card Industry Data Security Standards), a set of guidelines and an actionable framework for businesses that accept merchant cards.



¹ <https://www.cardfellow.com/how-credit-card-processing-works/>



State of Delaware's Merchant Card Processing Activity

Observation

- During the 12 months ending April 30, 2017, the State processed 1.65 million transactions totaling \$248.9 million. The average transaction size was \$150.
- All state agencies that accept merchant cards accept Visa, MasterCard, and Discover. A few agencies, such as Division of Revenue and Division of Corporations, choose to also accept American Express.
- On the following page, we have provided information about the dollar volume and number of transactions processed by each State agency.
- The five State agencies processing the greatest dollar volume of transactions for the 12 months ending April 2017 were:
 - Division of Corporations: \$99.5 million
 - Division of Motor Vehicles: \$58.9 million
 - Division of Courts: \$20.7 million
 - Division of Revenue: \$20.6 million
 - Delaware Tech: \$16.3 million



State Agencies Accepting Merchant Cards

State Agencies	Gross Transactions (\$)¹	% of Total	Gross Transactions (#) ¹	% of Total	Number of MIDS²
Agriculture	\$ 286,949.09	0.1%	1,947	0.12%	2
Corporations	\$ 99,531,107.40	40.0%	434,319	26.3%	2
Courts	\$ 20,678,502.79	8.3%	244,119	14.8%	46
Delaware Learning Center	\$ 69,761.00	0.0%	1,265	0.1%	2
Delaware State University	\$ 6,002,266.27	2.4%	12,046	0.7%	5
Delaware Tech	\$ 16,266,008.81	6.5%	118,231	7.2%	13
Delaware Transit Corp	\$ 237,455.10	0.1%	2,938	0.2%	1
DELDOT - Others	\$ 175,541.61	0.1%	358	0.0%	1
Dept of State - Others	\$ 5,683,939.52	2.3%	32,840	2.0%	8
DNREC - Fish and Wildlife	\$ 3,516,521.77	1.4%	60,525	3.7%	4
DNREC - Others	\$ 402,473.00	0.2%	2,687	0.2%	6
DNREC - Parks & Recreation	\$ 10,875,965.82	4.4%	104,305	6.3%	28
Health and Social Services	\$ 1,172,953.06	0.5%	27,210	1.6%	3
Labor	\$ 263,398.59	0.1%	3,260	0.2%	2
Miscellaneous	\$ 1,211,340.28	0.5%	4,004	0.2%	7
Motor Vehicles	\$ 58,903,498.97	23.7%	484,452	29.3%	9
Public Education	\$ 1,487,996.04	0.6%	16,861	1.0%	12
Public Service Commission	\$ 45,751.00	0.0%	513	0.0%	1
Revenue	\$ 20,550,825.49	8.3%	74,420	4.5%	3
State Bureau of Identification	\$ 1,555,305.25	0.6%	25,492	1.5%	3
State of Delaware	-	0.0%	-	0.0%	1
Total	\$ 248,917,560.86	100%	1,651,792	100%	159

¹ EPX data analyzed from May 2016 – April 2017

² Number of Merchant Identification Numbers as of April 2017



Merchant Cards Processing Costs

Observation

- During the 12 months ending April 30, 2017, the State spent approximately \$4.6 million on merchant card processing fees or approximately 1.84% of the amount processed. Merchant card processing fees can be divided into two primary categories:
 - **Interchange fees and assessments** – These fees are set by the card associations and represent the majority of the costs associated with processing merchant cards. Of the \$4.6 million spent by the State, interchange fees and assessments account for 98% of the cost for processing merchant cards. Interchange fees are fixed and can not be negotiated. However, there are hundreds of interchange categories and a merchant needs to be sure that it is “qualifying” for the lowest possible interchange category for each transaction.
 - **Acquiring Bank / Processor fees** – These fees are paid to the processor selected by the merchant and can be negotiated. The fees can be variable or fixed. Variable fees are a percentage of the payment amount processed. Fixed fees are imposed on each transaction. Under the State’s previous relationship with EPX, approximately \$101,000 was paid in processor fees.

Charge Type	% of Total Spend	% of Total Fees
Interchange	1.80%	97.7%
Processor Fees	0.04%	2.3%
Total	1.84%	100%

- Although there can be significant costs associated with processing merchant card transactions, the GFOA¹ recommends that governments consider the internal costs associated with processing merchant cards relative to other payment types (cash, check or ACH).
 - **Cost savings** – Accepting merchant cards may decrease the internal administrative costs to process transactions. Customers may elect to pay online via a merchant card instead of bringing currency or check to a cashier. There may be other savings opportunities, such as suppressing mailed paper statements.
 - **Convenience fees** – Governments may be able to recover a portion, if not all, of the merchant card processing fees for a transaction by passing the costs on to the cardholder. (Details are provided in the section below titled “Charging Processing Fees to Cardholders.”)
- In addition to the direct merchant card processing fees there are **Administration costs** incurred to manage a merchant card program. These administrative costs include, but are not limited to costs for equipment, the payment gateway, and the personnel needed to administer the merchant card contracts.

¹ Government Finance Officers Association, <http://www.gfoa.org/accepting-payment-cards-and-selection-payment-card-service-providers>



Components of Interchange Fees

- i. Assign personnel to monitor the billings on a regular basis to ensure the State is not being overcharged and that front-line employees are processing transactions in a manner that results in the most favorable interchange rates. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• As mentioned on the previous page, the majority of the cost of accepting payments by merchant card are the interchange fees.• The interchange fee is charged on each payment and can vary based on a number of factors including how the payment is made, where the payment is made, the type of goods/services being purchased, the type of card used and the amount of the payment. There are hundreds of interchange levels.• Interchange is calculated based upon the dollar amount of the transaction. Typically, there is a percentage charge based on the amount of the transaction plus a per transaction fee. A merchant cannot negotiate interchange rates.• Interchange rates are set periodically by the card associations. Visa and MasterCard revise and update rates in April and October.	<ul style="list-style-type: none">• The fees related to accepting merchant card transactions are complex. OST should assign personnel to monitor the billings on a regular basis to ensure that the State is not being overcharged and that front-line employees are processing transactions in a manner that results in the most favorable interchange rates.• As the State is implementing merchant services with BAMS, the State should focus on the following to manage the level of interchange:<ul style="list-style-type: none">– Ensure that all MCC designations are appropriate for the specific line of business. When new merchant accounts are opened, OST should collaborate with the merchant card processor to determine if any alternative MCC designation is available. A review of opened accounts should be done periodically.– Ensure that all equipment used to process merchant card payments is in good condition.– For card-not-present transactions (phone and Internet), ensure that all available fraud prevention techniques are being used, such as address verification and capture of the CVV.– Monitor interchange qualification levels to ensure transactions are not being “downgraded” to a less favorable interchange rate. This usually occurs if operators are not properly trained or recognize the importance of timely batching of transactions.– Evaluate the potential of charging convenience fees at individual locations, where appropriate.



Charging Processing Fees to Cardholders

- i. Consider the use of convenience fees, surcharges and/or government and higher education transaction fees to recover a portion of the cost of collecting payments by merchant card. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The cost of accepting payments by merchant card can be a real challenge for state and local governments. Merchant cards are convenient, but the fees can double or triple an organization's cash management costs.• A growing number of organizations are choosing to pass on a processing fee to cardholders. Several options are available, including convenience fees, surcharges and government and higher education transaction fees.• A convenience fee is a flat fee charged on a non face-to-face transaction. It can only be charged if the payment method is a true convenience for the customer and is not the standard payment method for the merchant.• A surcharge is a small fee (typically a percentage of the transaction amount) that can be added to a credit card transactions. Surcharges can not be added to debit card transactions. The use of surcharges is heavily regulated by the Card Associations and is not permitted in a number of States. Further, not all payment processors support surcharging.• A government and higher education transaction fee is a service fee that government and higher education institutions can pass on to cardholders. Each Card Association has specific rules regarding the use of these fees and generally allow the merchant to charge a flat fee or a percentage of the transaction.• The rules related to these fees are complicated. Merchants must work closely with their payment processor to ensure that Card Association rules are carefully followed.	<ul style="list-style-type: none">• The State currently accepts merchant cards for payment of a wide variety of services and absorbs sizeable processing fees.• We understand that three agencies have already decided to pass on merchant card processing fees to cardholders; DNREC charges a \$4 convenience fee on some transactions, Courts charges a "tech fee" for online merchant card payments and DHSS plans to implement a vendor-managed convenience fee program.• PFM recommends that the State consider the use of convenience fees, surcharges and/or government and higher education transaction fees for other payments processed by merchant card. It should not be necessary to pick a single approach; a different type of processing fee can be selected for each merchant ID.• The first step is to talk to BAMS to determine what options it supports. Then, OST should work with each agency currently accepting merchant card payments to determine if it would be appropriate to impose some type of processing fee.• The use of a processing fee should also be considered when a new merchant ID is set up.



Recent Selection of Merchant Card Processor

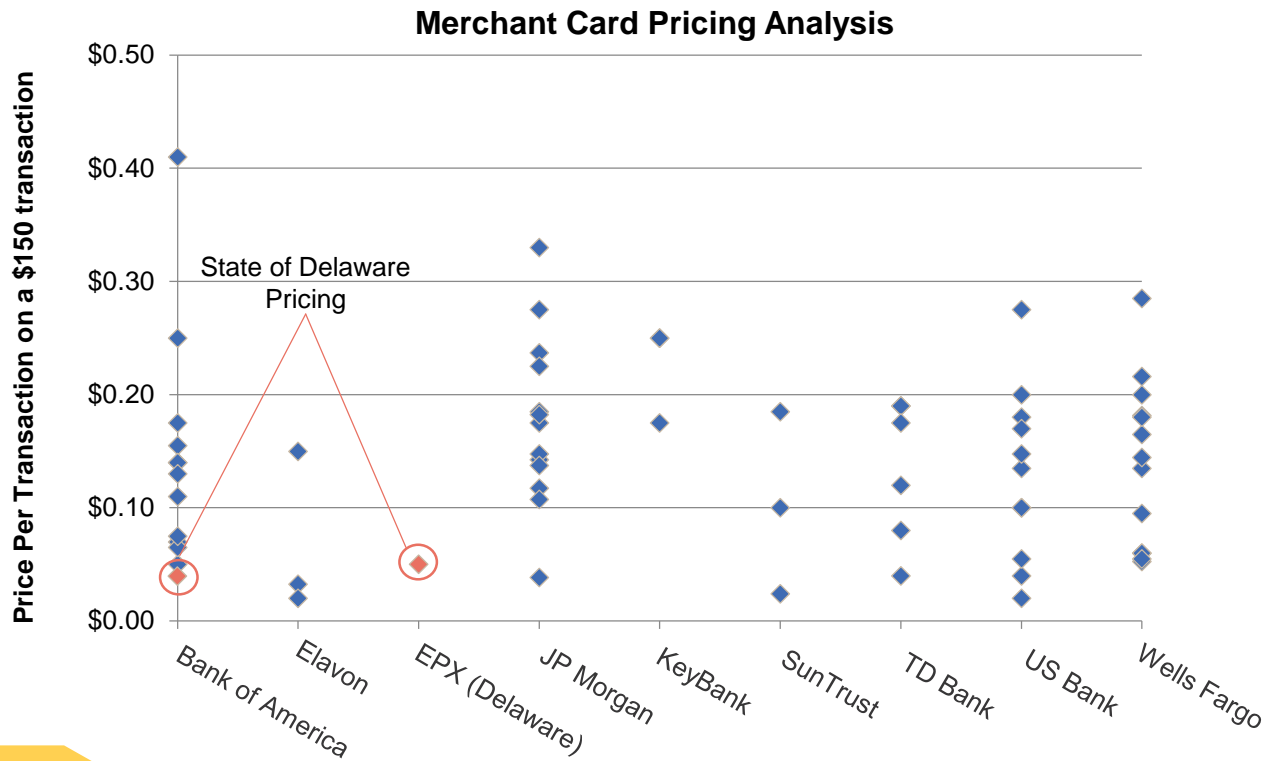
Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• Acquiring Bank / Processor fees and administration fees account for only a small percentage (2.3%) of overall merchant card processing fees. Although this is a small percentage of the total merchant card processing fees, it is still a substantial cost to the State.• The new BAMS contract has lower fees. We estimate that the State will save approximately \$28,500 to \$72,000 per year.	<ul style="list-style-type: none">• PFM was asked to comment on the competitiveness of Bank of America's proposed fees. In our assessment, the BAMS contract fees are competitive and relatively low compared to the fees we have seen BAMS charge to other governments.• The chart on the following page compares the contracted merchant card transaction fees for EPX and BAMS to the proposals received from other banks.• In a few instances, we have observed slightly more favorable pricing. For example, Elavon, a subsidiary of U.S. Bank, charges the Commonwealth of Virginia and local governments in the state \$0.02 per transaction¹. This price is approximately \$28,000 lower than BAMS.• For the State of Delaware, we understand that fees were not the primary evaluation criteria used when evaluating merchant card processor proposals. The requirement that the processor provide customized reporting to accommodate the State's accounting processes was a critical element of the selection criteria. If the State is able (and willing) to configure its internal systems to accept the "standard" file generated by its merchant card processor the State may be able to achieve somewhat better pricing when rebidding this service in the future.

¹ <https://www.trsvirginia.gov/cash/MerchantCard.aspx>



Merchant Card Pricing Analysis

- The chart below plots the per transaction processing costs for the State's EPX and BAMS contracts. It shows the fees (excluding interchange, which are the same for each processor) to process a \$150 transaction. Transaction costs proposed by other banks for other governmental agencies are shown for reference
- The State of Delaware's per transaction cost with BAMS is \$0.0395 per transaction. With EPX, the cost was \$0.05 per transaction.





Operational Suggestions / Recommendations

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• During our meetings with State agencies, PFM received feedback from many State agencies that they would like more assistance and support from OST with merchant card processing issues.	<ul style="list-style-type: none">• Given the desire to accept merchant cards across agencies and the complexity of complying with the rules and regulations of the brand associations, PFM recommends that the State allocate additional centralized resources to support the following areas:<ul style="list-style-type: none">- Training resources related to PCI compliance and assistance with completing the Self-Assessment Questionnaire (SAQs).- Coordination of network scanning across multiple agencies. Instead of each agency scheduling quarterly network scanning and addressing issues independently, it may make sense to perform quarterly network scans for multiple agencies all at one time.- Identifying a specific individual at DTI for agencies to contact for assistance in resolving issues encountered during network scans.- Coordination between agencies and the OST if additional payment gateways are added.- Better dissemination of information with agencies, especially information about the capabilities of the online gateway. For example, one division within DHSS expressed interest in accepting credit card payments and was not sure where to start, meanwhile several other divisions within DHSS were already accepting merchant card payments.



Online Gateways and Ability to Collect Funds

- i. Create a team of OST and DTI employees to work with State agencies that are interested in accepting payment by merchant cards. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• Allowing individuals and businesses to make merchant card and “eCheck” payments online expedites the collection of funds and offers greater convenience for payers.• However, when processing merchant card and eCheck payments online, a customer's personally identifiable information (PII) such as bank account information and merchant card data must be carefully secured. For this reason, gateways must have a high level of security and typically use encryption when moving data through cyberspace.• Given these security requirements, most businesses and governments use a third-party payment gateway to route transactions to the acquiring bank.• There are hundreds of gateway options. The State uses Govolution's Velocity Payment system as its payment gateway for most of the State agencies. This contract is maintained by the DTI.• A few agencies use an alternative gateway, shop.delaware.gov. However, this online gateway is being discontinued and replaced by 3D Cart.	<ul style="list-style-type: none">• PFM recommends that the State:<ul style="list-style-type: none">- Continue to limit the number of gateway providers used throughout the State. This will reduce the scope of PCI compliance.- Seek gateway providers that are flexible enough to accommodate a broad array of business needs for the State agencies.- Create a team of OST and DTI employees to work with State agencies that are interested in accepting payment by merchant cards. The OST team member would be responsible for setting up the new Merchant IDs, configuring the new account to obtain the most advantageous interchange rates and helping the agency access the possibility of charging a processing fee. The DTI team member would handle the technical issues related to integrating the agency's internal systems with the gateway and other system integration issues.• Since managing the gateway requires significant technical knowledge, the involvement and input of DTI will be critical. It may be more operationally efficient if DTI retains responsibility for contracting with gateway providers (i.e. the contract with Govolution).



PCI Compliance

- i. Dedicate additional personnel resources to manage PCI Compliance. ■
- ii. Expand centralized resources to support training and coordination of network scanning across multiple agencies. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• In response to increased cyber-fraud as it relates to credit and debit card transactions, the Payment Card Industry (PCI) has adopted strict rules for all organizations that accept payment by merchant card. Specifically, the rules focus around properly securing the card numbers, expiration dates, and CVV numbers on all transactions, with specific attention paid to ‘card numbers at rest (i.e. stored on computer systems). The standards have placed responsibility for securing the sensitive information squarely on the shoulders of the merchant.• These compliance requirements can be cumbersome for merchants. During PFM’s meetings with state agencies, many agencies described the challenges they face with PCI compliance. These challenges centered around filling out the Self-Assessment Questionnaires (SAQs) and troubleshooting scan failures.• Failure to comply with PCI guidelines puts the State at risk on several levels. First, lost cardholder data may upset constituents and cause a loss of goodwill. Second, loss of a large amount of data could result in unwanted and unfavorable headline risk. It could also expose the State to class action lawsuits related to cardholder losses. Lastly, failure to comply, even without a demonstrated breach of data, could result in the loss of the State’s ability to accept merchant cards as payment. In short, non-compliance is an enormous risk for the State.	<ul style="list-style-type: none">• Due to the challenges faced by various agencies and the growing PCI reporting requirements, PFM strongly recommends that the State dedicate additional personnel resources to manage PCI compliance.• This includes:<ul style="list-style-type: none">- Identifying a centralized “PCI expert” that can provide card data security training and assist with SAQ’s for all State agencies.- A PCI expert that can keep abreast of industry developments and disseminate information to the various State agencies. This approach would be more efficient than having dozens of State employees attempt to understand this constantly changing and complicated issue on their own.- The PCI expert would be a liaison between the merchant card processor (Bank of America Merchant Services), gateway providers (Govolution) and end-users.• Although it is hard to estimate, it is likely that overseeing merchant card acceptance for all State agencies and serving as the PCI expert would be a full time job. A third-party vendor may be an alternative to hiring a State employee.• The PCI expert can help incorporate card data security protocols in internal policies and procedures, including employee training programs. Some examples of policies the State should formally adopt include:<ul style="list-style-type: none">- Written procedures which emphasize the security of cardholder data,- Masking card numbers on receipts, screens and reports, and- Omitting card expiration dates and CVV numbers.



ERP / Internal Systems

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The State's Enterprise Resource Planning (ERP) system is PeopleSoft.<ul style="list-style-type: none">– First State Financials (FSF) is the accounting system. The current version is 9.1 and it is being upgraded to 9.2 in October 2017.– PHRST PeopleSoft HCM application is the payroll / pension system. The current version for payroll is 9.1 and it is being upgraded to 9.2 in October 2017. Pension is already on version 9.2.• For agencies that use FSF, reconciliation is done monthly by the OST. If there are any discrepancies identified upon agency review, the agency contacts OST who then works with the customer service team at the bank to resolve the problem.• There are a number of other accounting systems used by State agencies.<ul style="list-style-type: none">– There is no automated reconciliation between these other accounting systems and FSF.– Agencies that are outside of FSF are reconciling accounts themselves. These agencies contact the bank directly to resolve any issues.	<ul style="list-style-type: none">• During the discovery meetings, State employees seemed satisfied with the current system. We have no recommendations for ERP / Internal Systems at this time.



DTI / Data Security

Observation

- The Department of Technology & Information (DTI) operates as a partner with the OST and the majority of State agencies. DTI works closely with the individual State agencies to establish security and data standards.
- Several agencies have their own autonomous IT groups (i.e. DeIDOT, Courts, and DNREC). DTI supports these groups by providing input on various issues.
- DTI sets the minimum technology standards for the State and makes recommendations for common services.
- When issuing an ACH, DTI scrubs out personally identifiable information (PII). Only the minimum amount of information needed to process the transaction is included in the file sent to the bank. DTI does not have any concerns about existing processes for transmitting PII, however they do have concerns about securing data that is “at rest”.

Suggestion / Recommendation

- DTI will need to be involved in the RFP process when the State rebids its banking services. The department’s input and involvement will be critical for successfully evaluating and implementing any changes to banking services.
- In the RFP for banking services, details regarding file specifications and processes will be included to ensure potential banking partners can meet the needs of DTI and the State.
- DTI has taken on significant administrative responsibility for Govolution. Ideally, these daily administrative functions would be handled by OST; however, there are inadequate resources to transition these services currently.



File Transfers / Standardization of Files

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The Division of Accounting receives files in several different formats from its banking partners.• The Division of Accounting updates FSF using prior day bank information. Prior day information is retrieved at approximately 12 p.m. from the bank. By 1 p.m., agencies are able to view the prior day transaction history in FSF.• In some cases, the data is received in a format that must be manipulated before it can be imported into FSF.<ul style="list-style-type: none">- DTI has created a way to reformat BAI2 files.- A custom process is in place to remove the 11th digit from a field in the Checks Cleared file.- Customizing BAMS' format to work with the State's alias numbers for merchant cards has been problematic.- NACHA files from BNY Mellon must be converted into BAI format.• OST also receives files from banking partners. These files are entered into OST's third-party reconciliation system (Trecs by Chesapeake System Solutions) in order to reconcile the six controlled disbursement accounts and three main receipt accounts.<ul style="list-style-type: none">- Citizens Bank – 1 file in BAI format- BNY Mellon – 1 file in BAI format and 1 in NACHA format with ECC detail. These files are transferred to the Division of Accounting for entry into FSF.- PNC Bank – 3 files in BAI format	<ul style="list-style-type: none">• DTI has embraced a philosophy of accommodating and adapting to the file format provided by the banks versus requiring the bank to customize a file that can be uploaded into FSF or another accounting system without manipulation.• Requiring that the banks send files in formats that can be used without manipulation would provide the Treasurer's Office with considerably greater flexibility in designing its banking structure. The need to customize files places a significant demand on the State's IT resources and limits the State's ability to quickly make changes to its banking arrangements.• If a change of vendor occurs, OST and DTI will need to coordinate a plan to ensure similar files are transmitted by the newly selected bank and can be uploaded in a timely fashion to the the respective accounting system.



Cash Concentration of Funds

- i. Once State balances are more concentrated, use compensating balances with a money market mutual fund sweep, similar to the arrangement currently with BNY Mellon. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">Over the last 12 months ending March 31, 2017, average DDA balances at the State's three primary banks were:<ul style="list-style-type: none">\$45.2 million at PNC\$ 1.9 million at Citizens\$ 5.6 million at BNY MellonOST Managed Balances<ul style="list-style-type: none">OST concentrates funds at BNY Mellon. Excess funds at Citizens Bank are transferred to BNY Mellon by wire. As funds are disbursed from PNC Bank, OST transfers funds from BNY Mellon to cover daily activity.The State has set a target balance of \$5 million at BNY Mellon with balances greater than \$5 million swept into a Federated Government Money Market Fund.OST closely monitors the cash balance in OST's concentration account at PNC Bank and has set a \$5 million target daily ending balance.Citizens Bank's target daily balance is \$200,000, with excess funds being moved to BNY Mellon by wire.Agency Account Balances<ul style="list-style-type: none">The various State agencies maintain approximately \$40 million in balances.	<ul style="list-style-type: none">The Structural & Rebidding Recommendations proposed in Section 3 will simplify the daily cash positioning of OST balances. Balances will be concentrated at the OST Concentration Bank.We recommend using compensating balances in combination with a money market mutual fund sweep, similar to the arrangement currently with BNY Mellon. Using a money market mutual fund sweep has been one of the most effective approaches in generating competitive rates for overnight funds since the Federal Reserve started raising rates in December 2015.By consolidating the majority of OST bank activity with a single financial institution, OST will benefit by limiting the time and effort to compute the daily cash position at multiple banks. With funds already at the cash disbursement account, the risk of overdrafts (daylight or end-of-day) is greatly reduced, if not eliminated.Agency Accounts<ul style="list-style-type: none">In addition to the funds managed by OST, the various State agencies maintain approximately \$40 million in compensating balances at PNC Bank.OST should have ongoing dialogues with the State's banking partners to ensure the State agencies are receiving a competitive earnings credit rate on deposit balances. In today's interest rate environment, some banks are offering ECRs in the 0.75% to 1.00% range. Please see Section 5 for more information on the State's current and historical ECRs.



Collateralization of Deposits - Observations

Observation

- Public funds have special status under federal regulations. Banks are permitted under Section 330.15 of the FDIC's regulations (12 C.F.R. 330.15), to collateralize deposits in excess of the FDIC insurance limit of \$250,000. Collateralization provides extra protection for public deposits in the event the bank fails.
- Collateralization requirements for State funds in Delaware were established by the Cash Management Policy Board and included in the Statement of Objectives and Guidelines for the Investment of State of Delaware Funds, Chapter 8. Current policy requires that:
 - Depository institutions pledge U.S. Treasury and U.S. Government Agency obligations to secure state funds;
 - Collateral securities are held at the Federal Reserve Bank for the benefit of the State;
 - The market value of pledged securities is equivalent to the "highest daily intra-day balances" of funds held or expected to be held at the bank;
 - The bank give notice to OST of any adjustments to collateral (additions or reductions); and
 - The bank provide a detailed report of collateral held by 5:00 pm each business day.
- The GFOA provides a number of best practice recommendations related to the collateralization of public funds, including recommendations that the government:
 - Have a written agreement with its banking partners documenting collateral pledging requirements;
 - Implement procedures to monitor collateral positions;
 - Ensure that security interests in pledged collateral are enforceable against the receiver of a failed financial institution;
 - Hold collateral at an independent third party custodian;
 - Require a collateral margin of at least 102 percent; and
 - Require that collateral substitutions be approved by the government in writing prior to the release of collateral and that collateral is not released until replacement collateral has been received.
- The Uniform Commercial Code (UCC) states that the depositor does not have a perfected interest in a security unless the depositor controls it. Control means that swaps, sales and transfers of collateral cannot occur without the depositor's written approval.
- Federal law imposes certain limits on collateral agreements between depositories and governmental entities. To ensure that the collateral agreement is valid, the agreement must:
 - Be in writing;
 - Be approved by the board of directors of the depository or its loan committee; and
 - Has been, continuously, from the time of its execution, an official record of the depository institution.



Collateralization of Deposits – Assessment of Current Approach

- i. Formalize collateralization policies and make the Security Agreements with the banks consistently with CMPB policies. ■

Observation & Recommendation

This section assesses the State's current approach to collateralizing deposits using applicable federal regulations and GFOA best practice guidelines as the standard.

- **Written Agreements:** The State has collateral agreements with each of the banks holding State funds ("Security Agreements"). The documents are thorough and address the critical elements in Federal law needed to ensure that the State's funds are protected should the bank become insolvent. However, the terms of the collateral agreements are inconsistent with the policies established by the Cash Management Policy Board. The table below highlights the differences:

	Cash Management Policy Board Requirement	Bank Security Agreements
Acceptable Collateral	<ul style="list-style-type: none"> • U.S. Treasury • U.S. Government Agency Obligations 	<ul style="list-style-type: none"> • U.S. Treasury • U.S. Government Agency Obligations • FHLB Letters of Credit • State of Delaware Securities • Securities of a political subdivision of the State of Delaware, rated "A" or better by Moody's
Balance Used to Compute Collateral Sufficiency	Highest daily intra-day balances held or expected to be held	Prior month average ledger balance
Reporting Requirements	Daily by 5:00 pm	Monthly
Substitution of Collateral	Bank must provide State with same day notice of collateral additions or reductions	The State must approve collateral substitutions or releases in advance

Recommendation

- The Security Agreements should be consistent with CMPB policies. The State should either modify the CMPB policies or the Security Agreements.
- PFM recommends that the CMPB consider expanding the list of acceptable collateral. A broader discussion of this topic is provided on the following pages.



Collateralization of Deposits – Assessment of Current Approach (cont.)

- i. Expand the list of permitted collateral to include high quality municipal obligations issued by the State of Delaware and its political subdivisions, and Federal Home Loan Bank Letters of Credit. ■
- ii. Require that the collateral requirement be met each day, instead of only collateralizing the prior month-end balance. ■

Observation & Recommendations

- **Collateral Monitoring Procedures:** OST monitors collateral balances at the banks where deposits are maintained. CMPB policies require that the market value of collateral be “equivalent to the highest *daily intra-day* balances...” However, OST is monitoring average *monthly* balances and uses the *end of day* balances, not the *intra-day* balances as required by CMPB policy. Further, CMPB policies require that the banks provide a daily collateral report to OST by 5:00 pm each business day. It does not appear that OST is receiving daily reports from the depository banks.

Recommendation

- To comply with CMPB policies and to fully protect State funds, OST should require that banks pledge sufficient collateral to secure the State’s daily balances plus accrued instead of merely securing the prior month average balance.
 - OST should monitor daily collateral balances for each of its depository banks to ensure that the market value of collateral is sufficient to secure State funds on deposit. The State’s custodian bank may be able to provide this information. If not, the depository banks should be required to provide daily reports.
 - Update the Security Agreements with the depository banks to reflect the requirement that sufficient collateral is required to cover daily balances.
 - Consider modifying the CMPB policy to permit the use of Federal Home Loan Bank Letters of Credit (FHLB LOC) to secure State deposits. The FHLB has recently introduced Variable Balance LOCs that provide the banks with a flexible, cost-effective way to secure deposits that fluctuate substantially. This product should solve the problem of collateralizing the State’s large intra-day and day-to-day balance fluctuations.
- **Security Interests in Pledged Collateral:** The Security Agreements between the State and each of the banks appears to include appropriate language to ensure that security interests in pledged collateral are enforceable against the FDIC in the event that the bank fails.

Recommendation

- No changes are recommended.



Collateralization of Deposits – Assessment of Current Approach (cont.)

- i. Increase the collateral margin on volatile securities. ■
- ii. Require pre-approval of collateral substitutions or withdrawals. ■

Observation & Recommendations

- **Independent Third Party Custodian:** The Security Agreements require that pledged collateral be held at the Federal Reserve Bank of Boston.

Recommendation

- No changes are recommended.

- **Collateral Margin of at Least 102%:** The Security Agreements require that the financial institutions pledge collateral equal to 102% of the value of State deposits, less amounts covered by FDIC insurance. However, the Security Agreements do not require that the banks collateralize *daily* balances; the Security Agreements require only that the banks collateralize the average *monthly* ledger balance. Because the State's balances fluctuate considerably from day-to-day, there are likely many days when a portion of the State's funds are unsecured.

Recommendation

- Require banks to maintain sufficient collateral to cover the State's balances each day instead of collateralizing only the prior month average balance.
- Consider requiring a margin of more than 102% on longer-term securities that could experience greater market value fluctuations.

- **Collateral Substitutions:** The current Security Agreements with the banks require that any substitution or release of collateral be approved by the State in writing in advance. This is considered to be the best practice and is needed to meet the UCC's standard for "control" of the security. However, CMPB policies do not currently include this requirement; the current policy allows the banks to substitute or release collateral without prior approval of the State.

Recommendation

- Update CMPB policies to require that OST formally approve all collateral substitutions and releases in advance.



Collateralization of Deposits – Acceptable Collateral

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• When collateralizing public funds, there is a natural tension between the depositors' desire to fully secure their deposits and the banks' desire to minimize their costs.<ul style="list-style-type: none">- Collateralizing deposits can be very expensive for the banks. The FDIC estimates that the cost of collateralizing public deposits is typically 15 to 25 basis points¹.- In addition, the new Basel III liquidity coverage ratio requirement, which requires banks to hold High Quality Liquid Assets equal to the amount of net cash outflows (in the next 30 days), has added to the cost of holding public fund deposits.• CMPB policies currently permit banks to pledge U.S. Treasury and U.S. Government Agency obligations as collateral. The policy allows the OST to set the collateral margin, which is currently 102% on balances in excess of the amount covered by FDIC insurance. As noted above, the Security Agreements with the State's banking partners permit a wider range of securities to be pledged to secure deposits.	<ul style="list-style-type: none">• PFM recommends that the CMPB consider expanding the list of securities that may be pledged to secure State deposits to include high quality municipal obligations issued by the State of Delaware and its political subdivisions and FHLB LOCs.<ul style="list-style-type: none">- These security types are currently allowed in the bank Security Agreements, but are not authorized in the CMPB policy.- The table on the following page shows the asset classes that are accepted by the states that responded to the NAST Survey².<ul style="list-style-type: none">• Roughly 80% of states accept G.O. debt of in-state issuers as collateral. 60% of states also accept revenue bonds of in-state issuers.• When the report was issued, 65% of States accepted FHLB LOCs. PFM believes several states have begun to accept FHLB LOCs since the NAST report was issued.• Because the market value of longer-term securities and less-liquid municipal obligations can be more volatile than the market value of other high-quality fixed-income obligations, we recommend that the State consider requiring a higher collateral margin on more volatile securities. This is consistent with the GFOA best practice, depending on the liquidity and volatility of the collateral pledged."³

¹ *Increasing Deposit Insurance Coverage for Municipalities and Other Units of General Government: Results of the 2006 FDIC Study*, fdic.gov/bank/analytical/quarterly/2008_vol2_1/municipaldep.html

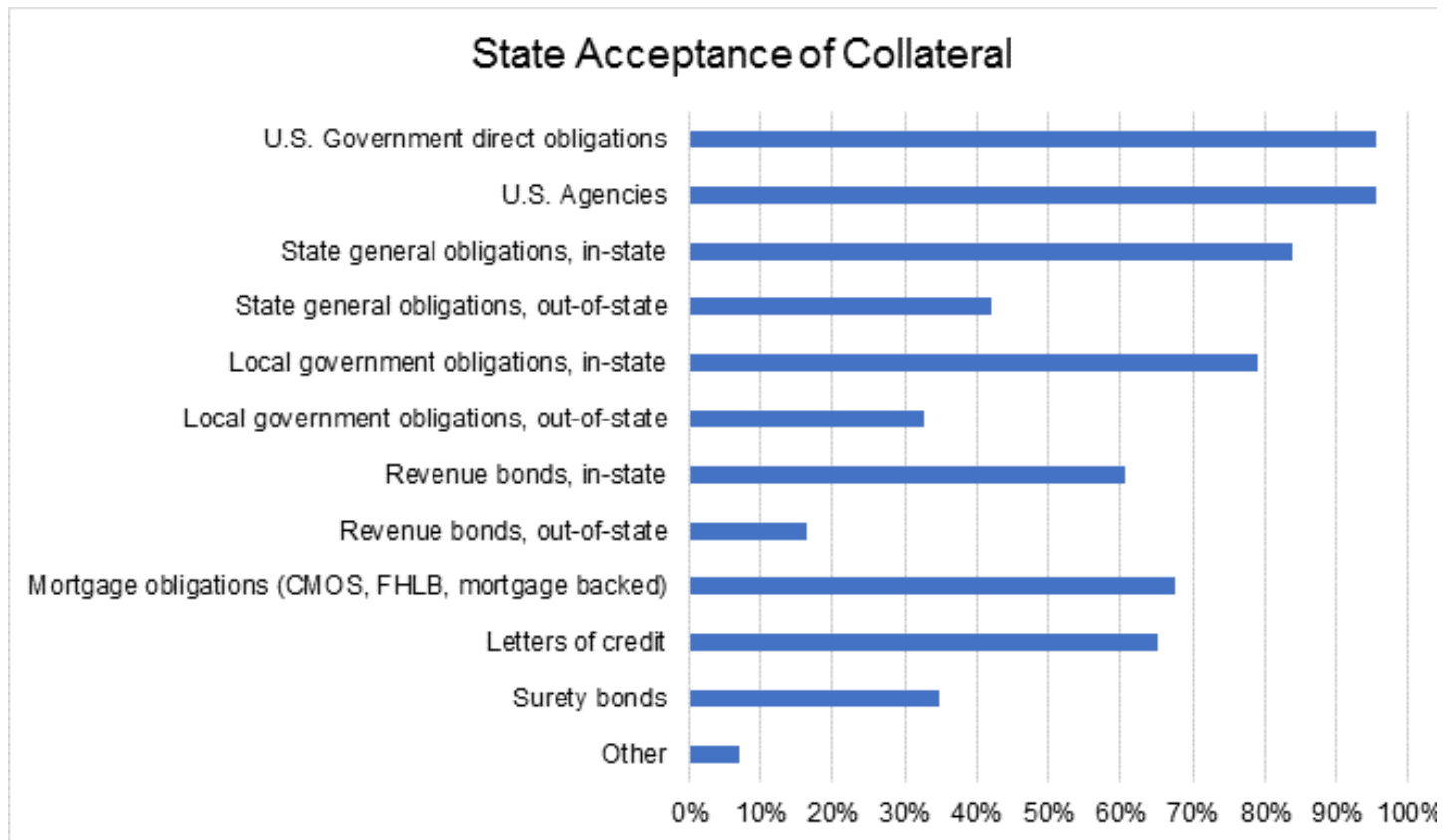
² *National Association of State Treasurers Survey 2012*; <http://knowledgecenter.csg.org/kc/content/national-association-state-treasurers-survey-2012>

³ *Best Practice: Collateralizing Public Deposits*, <http://www.gfoa.org/collateralizing-public-deposits>



Collateralization of Deposits – Acceptable Collateral by States

- The list of securities accepted by states vary considerably across the country. The table below shows the percentage of states responding to the survey that allow each type of collateral.





Purchasing Card Program

- i. Consider passing on some portion of the rebate generated to the agencies using the cards. ■
- ii. Transfer responsibility of Single Use Account Program from Division of Accounting to OST. ■
- iii. Seek to improve the large-ticket rebate schedule; this could generate \$71,000 of additional rebate. ■
- iv. Continue to seek additional opportunities to use the Commercial Card and Single Use Accounts to reduce the number of checks issued and increase the rebate generated. ■

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• A purchasing card or P-Card is a type of commercial card that allows organizations to make electronic payments for a variety of goods and services. In the simplest terms, a P-Card is a charge card, similar to a consumer credit card. However, the balance on a P-Card must be paid in full each month.• P-Cards are not limited to plastic cards. There are several variations:<ul style="list-style-type: none">• A Ghost card is a card issued to a specific supplier.• Single Use Account (SUA) is a unique 16-digit virtual account number assigned to a single payment for a specific payment amount.• According to GFOA Best Practices¹ there are numerous benefits to a purchasing card program. Benefits to the cardholder can include:<ul style="list-style-type: none">- Convenience of purchasing without a purchase order,- Simplified purchasing and payment process,- Lower overall transaction processing costs per purchase,- Increased management information on purchasing histories,- Reduced paperwork,- Decentralized procurement function,- The ability to set and control purchasing dollar limits,- The ability to control purchases to specific merchant categories and vendors, and- Receipt of rebates from the bank based upon dollar volume of total purchases.	<ul style="list-style-type: none">• The GFOA recommends that governments explore the use of purchasing cards to improve the efficiency of their purchasing procedures.• In selecting a purchasing card vendor, consideration should be given to vendors who can provide:<ul style="list-style-type: none">- Automated approval and reconciliation software. This software should provide for the ability to integrate to the entity's accounting records in a timely fashion;- A program that is simple and easy to use;- Comprehensive control restrictions for single transactions: the number and amounts authorized per day and per cycle and restrictions on the types of vendors and merchant category codes with which the card may be used;- A broad selection of reports or ad hoc reporting ability;- Training materials;- Customer support, and- Program rebates.

¹ Government Finance Officers Association, <http://www.gfoa.org/purchasing-card-programs>



Purchasing Card Program (cont.)

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• The State has a significant Purchasing Card and Single Use Account (SUA) Program with J.P. Morgan Chase, which generates revenue for the State. In 2016, the rebate was over \$2.13 million.• Highlights of JPM's Purchasing Card Program:<ul style="list-style-type: none">- Cards are Visa branded with embedded EMV chips- Cards are embossed with either a travel or purchase designation- There are approximately 4,500 cards in circulation with \$3 - \$5 million spent on travel cards and \$80 - \$85 million on purchasing denoted cards each year- Employees use PeopleSoft for expense reporting purposes and submit paper receipts with their expense report• Highlights of JPM's Single Use Account (SUA) Program:<ul style="list-style-type: none">- This is a relatively new program, but has already grown to have \$4 - \$5 million in monthly spend- The bank is contacting vendors every 6 to 12 months to enroll them in the SUA program- Experience has shown that the calling campaign is more effective if someone from the Division of Accounting contacts the vendor- If the vendor is unwilling to accept payment by SUA, the vendor is asked if they would be willing to be paid by ACH• The rebate received from the Purchasing Card and Single Use Account Program is currently used to fund and make improvements to the State's accounting systems.	<ul style="list-style-type: none">• The State's Commercial Card and Single Use Account Program has grown significantly under the oversight of the Division of Accounting.• As mentioned in Section 2: Strategic Organizational Recommendations, OST should seek to have greater oversight of contracts and centralization of services. PFM recommends that OST should have a greater role in the decisions and direction of this program.• The key for a successful virtual card program is to have a "champion" within the organization that recognizes the benefits of the program and actively fosters the program's growth. Given the program's exponential growth, the Division of Accounting appears to have done an excellent job. Any changes in managing this program should be made in a fashion that does not stunt the existing success of the program.• One strategic decision that should be addressed is if any of the rebate generated on the purchasing card program should be returned to the State agencies.<ul style="list-style-type: none">- If department heads were incentivized by receiving some portion of the rebate paid to them, this incentive may accelerate the growth of the purchasing card program given the autonomy State agencies have.- If agencies received some portion of the rebate generated, this could be positioned as a way to offset the banking fees that may be passed-through to them (<i>see Section 2: Allocation of Banking Costs to Departments</i>). This may help alleviate the resistance of banking fees being allocated to their department.



Purchasing Card Program (cont.)

Observation

- J.P. Morgan combines the spend on the Commercial Card and Single Use Program and pays the State a rebate according to the following schedule.

REBATE GRID	
ANNUAL CHARGE VOLUME	REBATE RATE
\$70,000,000	1.82%
\$80,000,000	1.85%
\$95,000,000	1.86%
\$110,000,000	1.87%
\$125,000,000	1.88%
\$150,000,000	1.89%
\$175,000,000	1.90%
\$200,000,000	1.91%
\$225,000,000	1.92%
\$250,000,000	1.93%

- In addition to the 1.87% rebate generated on the State's spending, J.P. Morgan pays an additional 0.01% for every full day the Average File Turn is less than 29 days. Last year, the State had an Average File Turn of 16 days, which increased the rebate by 0.13% to 2.00%.
- J.P. Morgan pays a significantly lower rebate on "large-ticket" purchases. The rebate on these purchases was only 0.20%. Of the State's purchasing card and SUA transactions, approximately 14.6% or \$17.7 million was considered large ticket volume.

Suggestion / Recommendation

- Overall, J.P. Morgan's rebate schedule is quite competitive; however, the State should seek improvement to the "large-ticket" rebate schedule. A competitive rebate on "large-ticket" purchases is 0.50% to 0.70%.
- If the State was successful in obtaining an increase of 0.40% so large-tickets generate a rebate of 0.60%, it would generate \$71,000 of additional annual rebate.
- The State should continue to seek additional opportunities to use the Commercial Card and Single Use Accounts to reduce the number of checks issued and increase the rebate generated.



Purchasing Card – The State Purchase Card Survey

The State Purchase Card: Uses, Policies and Best Practices

The Association of Government Accountants (AGA) conducted a study of state purchase card usage in 2007. (PFM reached out to the AGA for a more recent survey, but unfortunately one has not been performed and they were not familiar with any new reports of this nature from any other associations.) While this report is somewhat dated, we wanted to include some of the highlights of the study.

- Nearly 70% of the states used a bidding process to select purchase card contracts; 28% used bidding to first select a vendor but negotiated the details of the purchase card contract. The length of the contract varies widely by state ranging from annual renewals to 10 year contracts; the majority of states have contracts from three to five years.
- Ghost cards are used by 62% of responding states. Responders report that common uses of the ghost cards are for purchases of office supplies, travel services and utilities.
- More than 95% of the respondents reported some or substantial cost savings in finance-related procedures including billing, payment and ex-post procurement audit activities. Nearly 64% of the respondents reported income enhancement attributable to the purchase card resulting from differing (compared to purchase orders) cash management practices such as petty cash requirements and float opportunities.
- 52% of respondents use direct or indirect appropriations from the General Fund to cover the program costs, while 28% use agency funds. About 21% of the reporting states “self-finance” the program through revenues generated through the purchase card program such as card rebate revenues or service fees charged to state agencies. Note that these financing options are not mutually exclusive and a few states use more than one of these financing options to cover the card administration costs.
- When asked about restrictions placed upon users, respondents indicated that 75% use merchant category blocks, 85% use maximum dollar value per transaction, 80% use monthly acquisition limits, 69% use type of purchase limits and 4% perform credit checks on users.
- Responding states use three primary tactics to promote appropriate card use: 1) Ensure training is done before a card is issued and reinforce the training periodically; 2) Institute a policy that deals with consequences if the card is used inappropriately; 3) Use available data and software tools to monitor credit card purchases. Some states provide training through a statewide program, other states delegate the training to each agency, often with centralized oversight.
- One state expressed concern that the “de-centralized” use of the purchase cards in the field opens the opportunities for misuse, but continued to say that misuse can be mitigated with sufficient oversight.



Purchasing Card – The State Purchase Card Survey Charts

Survey Respondents and Fiscal Year of Purchase Card Implementation

State	Fiscal Year of Implementation	State	Fiscal Year of Implementation
Arizona	2003	New Jersey	1999
Arkansas	2002	New Mexico	2000
Delaware	N/A	New York	1998
Florida	1997-1998	Ohio	1995
Hawaii	2002	Oklahoma	2001
Idaho	2002	Oregon	1996
Iowa	2000	Pennsylvania	1995
Indiana	No card program	South Dakota	N/A
Kentucky	1995	South Carolina	1998
Louisiana	2000	Tennessee	2001-2002
Minnesota	1997	Texas	1995
Mississippi	1997	Virginia	1995
Missouri	1998	Washington	About 1996
Nebraska	1999-2000	West Virginia	1995
Nevada	1998	Wisconsin	1998

Number of Transactions and Dollar Value for State Purchase Card Purchases in Fiscal Year 2005

State	Transactions	Dollar Value of Purchases	Average Dollar Value per Transaction
Arizona	N/A	\$9,835,855	N/A
Arkansas	63,808	\$10,084,666	\$158
Iowa	35,567	\$11,763,742	\$331
Louisiana	293,000	N/A	N/A
Minnesota	89,000	\$10,600,000	\$119
Mississippi	N/A	N/A	\$115
Missouri	111,039	\$13,876,531	\$125
Nebraska	N/A	\$5,641,107	N/A
Nevada	116,061	\$21,578,290	\$186
New Mexico	N/A	N/A	N/A
New York	318,000	\$77,000,000	\$242
Oregon	N/A	\$18,421,593	N/A
South Carolina	788,212	\$164,810,633	\$209
Wisconsin	530,528	\$114,086,633	\$215
TOTAL	2,345,215	\$457,699,021	\$198

N/A = Not Available



Purchasing Card – The State Purchase Card Survey Charts

- The AGA survey identified differences in how purchase card programs have been implemented. The table below highlights the frequency by which different departments and employees are authorized to use purchasing cards.

Employee Groups Authorized to use Purchase Cards

	Always	Frequently	Occasionally	Never
Senior Agency Staff	20%	24%	56%	0%
Administrative/clerical staff	20%	48%	32%	0%
Contracting officers	21%	46%	21%	13%
Procurement staff	38%	46%	15%	0%
Financial Office staff	20%	48%	32%	0%
Staff designated by Agency Director (or designee)	42%	29%	29%	0%
Contractors performing services for state agencies	0%	0%	16%	84%
Non-government employees	0%	0%	16%	84%
All Agency staff	8%	8%	20%	64%



Purchasing Card – The State Purchase Card Survey

State Purchase Card Policy and Use Recommendations

Respondents provided a series of recommendations that they felt would enhance the benefits that their state realized from the purchase card program or that they would recommend their state counterparts to consider. These recommendations include:

- Enhance state purchase card financial savings and benefits by encouraging use of the purchase card for larger-dollar procurements.
- Enhance state purchase card financial benefits by ensuring rebates and rebate policies are part of purchase card contract renegotiations.
- Enhance state purchase card financial savings and benefits by expanding the number of agencies using the purchase card program in the various states.
- Enhance state purchase card financial savings and benefits by conducting periodic analysis, including cost-benefit assessments of which state procurement activities benefit from purchase card procurement procedures.
- Ensure purchase card programs are being efficiently operated by providing adequate training on technical aspects of the program (acceptable use, restricted vendors, etc.).
- Ensure purchase card programs are being effectively carried out by educating employees on their responsibilities regarding card use (including authorizing expenditures, reviewing purchases and ensuring the program is conducted properly).
- Ensure purchase card programs are being operated efficiently and effectively by restricting card authorizations to needs of authorized personnel and their agencies (such as Travel-Only, Commodity-Only or an Integrated Card).
- Ensure purchase card programs are being operated appropriately by negotiating card contracts with protection against fraudulent transactions (including the mining of transactions based upon patterns of use and authorized purchases).
- Ensure purchase card program administration efficiency by requiring vendors to report level 3 data to enable state agencies to provide more meaningful audits of purchase card transactions (data that indicates actual goods purchased, not just the vendor and amount).
- State purchase card respondents provided specific recommendations that could enhance oversight and streamline the purchase card processes:
 - Segregate duties between the card custodian and the approving or card authorizing manager.
 - Establish online monitoring and approval processes for card transactions.
 - Motivate agencies to pay their bill faster to obtain the incentives, including rebates.
 - Map merchant category codes to the state's financials.
 - Establish a state website development for agency and cardholder usage.



Delaware Department of Transportation (DeIDOT)

Observation	Suggestion / Recommendation
<ul style="list-style-type: none">• Delaware state code specifies that the Transportation Trust Fund (the “Trust Fund”) is a special fund that must be held separately. Statute gives the Delaware Transportation Authority responsibility for the management and disposition of the receipts of the Transportation Trust Fund.• DeIDOT has established a banking relationship with M&T Bank to provide cash management services for the Trust Fund. This is a substantial banking relationship with annual fees of approximately \$286,000.	<ul style="list-style-type: none">• Although the structural recommendations within this report promote the goal of centralizing banking services, we are not recommending that the Trust Fund be consolidated with OST’s other banking relationships.• PFM has performed a pricing analysis on DeIDOT’s M&T Bank relationship. This can be found in Section 5 of the report. Based on our analysis, PFM estimates the Department of Transportation could potentially save \$45,101 to \$88,224 (34.4% to 67.4%) annually if it were to rebid these services.• If DeIDOT decides to rebid its banking services, It may be advantageous to include these services as a separate service group in the upcoming RFP to be issued by OST. By including the business as a separate service category, DeIDOT officials would have the ability to independently evaluate and award services to the bank of their choice.



Section 5: Analysis of Current Fees



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Section 5: Analysis of Current Fees

Introduction

- As part of PFM's review, we performed a comprehensive analysis of the earnings credit rates and fees paid by the State.
- With the target federal funds rate at $\frac{3}{4}\%$ to 1% in March 2017, the State incurred a significant opportunity cost by holding significant bank balances at "below market" rates. We estimate this opportunity cost to be over \$570,000 per year (details on the computation is provided within this Section).
- In addition to generating greater earnings on balances, there appears to be a significant potential to reduce fees. Over the last decade, investments in technology have helped to lower the cost of many services. As detailed on the following pages, PFM conservatively estimates that the State (including DelDOT) could achieve annual savings ranging from \$105,213 to \$628,110 or 8.7% to 52.0% of total analyzed banking costs. The fee savings derived can help offset the cost of new services and additional personnel expense.
- A summary of the recommendations is presented at the top of each page with a color-coded box that identifies its priority as shown below. Additional background information and rationale are provided below each recommendation.

■ HIGHEST PRIORITY

■ INTERMEDIATE PRIORITY

■ LOWEST PRIORITY



Earnings Credit Rates

Observation

- Interest on bank deposits can be paid in two forms: (i) hard-dollars or (ii) earnings credits called “soft dollars”. The interest rate can vary considerably based on which method is used.
- When a depositor receives “soft dollars”, the bank does not credit the account with interest income. Instead, it provides an “earnings credit” that can be used to pay for banking services. In this situation, the deposit is called a “compensating balance” and the rate used to determine how many “soft dollars” are available to pay for bank fees is called an earnings credit rate (“ECR”). The ECR is set by the bank and can be negotiated.
- Often, the quoted ECR overstates the actual economic value for 3 reasons (described below). In PFM’s analysis, we have calculated the “effective” ECR for each of OST’s and DeIDOT’s banks, adjusted for these factors.
 - 10% Fed Reserve Requirement. Banks are required to hold 10% of deposit balances in demand deposit accounts at the Federal Reserve. Historically, the Fed did not pay banks any interest on these reserve balances; as a result, most banks paid interest to their institutional depositors on only 90% of balances. During the height of the financial crisis, the Federal Reserve started paying banks interest on reserve balances. Most banks now pay interest or give earnings credit on the full 100% of deposit balances. Citizens Bank, M&T Bank and BNY Mellon are three of OST’s current service providers still imposing the 10% reserve requirement when computing the earnings credit.
 - All Federal Deposit Insurance Corporation (FDIC) insured banks pay assessments to the FDIC. Most banks pass some or all of the assessment on to depositors. OST and DeIDOT pay FDIC fees on deposit balances ranging from a low of 0.06% at the DeIDOT’s M&T Bank relationship to a high of 0.18% at OST’s M&T Bank relationship.
 - The ECR is applied to the Available Balance (Ledger Balance less float and the 10% reserve requirement, if applicable) while FDIC fees are generally charged to the Ledger Balance.
- PFM has computed the effective ECR on OST and DeIDOT banking relationships. Although quoted ECRs range from 0.22% to 0.75%, the effective rates ranged from 0.02% to 0.61%. A table of rates per bank is provided on the following page.



Earnings Credit Rates

- i. Negotiate higher earnings credit rates with existing providers. ■

Observation

- The effective ECR at each of OST and DeIDOT banks is shown in the table below. As stated on the previous page, although the bank is quoting an ECR of 0.22% to 0.75%, when adjusted for FDIC fees and reserve requirements, the State is actually only earning 0.02% to 0.61% on the balances held at these accounts.

	Quoted ECR	Effective ECR
BNY Mellon	0.72%*	0.38%
Citizens Bank	0.31%	0.03%
JP Morgan	0.75%	0.61%
M&T Bank (DeIDOT)	0.50%	0.39%
M&T Bank (OST)	0.22%	0.02%
PNC Bank	0.35%	0.18%

- The effective ECR is the rate that the State should use for comparison when considering the benefit of alternative short-term investment/deposit opportunities.
- PFM recommends the State negotiate higher earnings credit rates with existing providers. If the banks are unwilling to increase the ECRs to a market rate, the State could consider sweeping the funds each night into some type of liquid investment.

Source: M&T DeIDOT information is from 4/30/17 bank analysis statement.
All other information is from 3/31/17 bank analysis statements.

* Quoted ECR on BNY Mellon Statement is 0.72%, however ECR calculates to 0.73% on ECR Credit Rate Summary page.



Opportunity Cost

- i. Minimize deposits in accounts where the Earnings Credit Rates/Sweep Rates are below market rates. ■

Observation

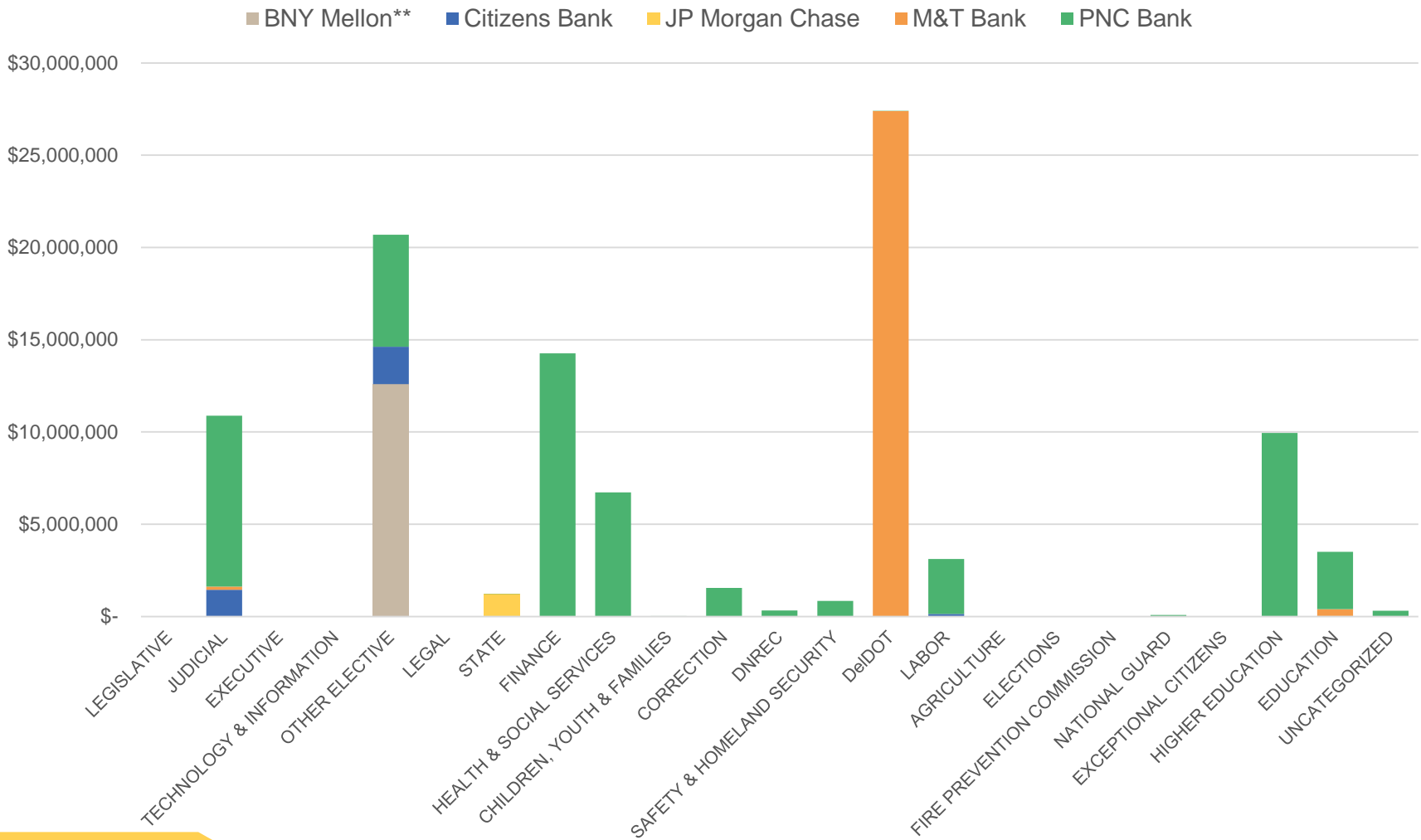
- An important factor to consider when evaluating where to hold State funds is opportunity cost. Opportunity cost is the difference in return between a chosen investment and one that is necessarily passed up¹.
- The fed funds target rate is a good proxy for “market rates” on short-term investments because it typically acts as an anchor for short-term rates. Comparing the effective ECR and sweep rates to the fed funds target rate is a good way to determine if the State is receiving a competitive rate on funds held in bank accounts.
- With the target federal funds rate at 0.875% during the time period analyzed, the opportunity cost of holding balances at these below market rates is over \$570,000 per year.
- The State should continue to focus on minimizing deposits in accounts where the ECR or rate on sweep accounts are below market rates.

	Effective ECR	Benchmark	Collected Balance	Annual Opportunity Cost
BNY Mellon	0.38%	0.875%	\$6,135,988	\$30,557
Citizens Bank	0.03%	0.875%	\$2,049,044	\$17,355
JP Morgan	0.61%	0.875%	\$1,024,071	\$2,745
M&T Bank (DelDOT)	0.39%	0.875%	\$26,177,794	\$127,486
M&T Bank (OST)	0.02%	0.875%	\$643,377	\$5,507
PNC Bank	0.18%	0.875%	\$55,884,355	\$387,279
TOTAL			\$91,914,628	\$570,929

¹ As defined by Investopedia



Account Balances by Bank by Department (March 2017)





Approach to Evaluating Banking Fees

Methodology of Assessing the Reasonableness of Banking Fees

- Analyzing the pricing of cash management services at various banks is challenging because of the way banks price their services. Some banks charge for every little thing (the “nickel and dimers” and others bundle multiple services together at a fixed price (the “bundlers”). This difference in pricing methodology makes the evaluation of bank fees part art, part science. Some services, such as account maintenance fees or the cost to send an ACH, can be easily compared from one bank to another. Other service charges – like online reporting and cash deposits at a branch – can be much harder to assess.
- The process of comparing fees is also complicated by the fact that banks don’t all use the same name to describe services; instead, they have created proprietary or branded names for services. Industry groups have grappled with this issue for decades. The Association of Finance Professionals (AFP), a group of bank practitioners and users of cash management services, finally solved the problem by creating a system wherein each bank service is identified with a unique number, referred to as an AFP Code.
- Databases of pricing paid by other institutional users of cash management services are also helpful in assessing the competitiveness of an organization’s bank pricing.
- PFM uses AFP Codes to match bank services from a client’s analysis statement to database pricing. We use two databases; the Phoenix-Hecht Blue Book (the “Blue Book”) and a compilation of pricing information we have obtained from clients during competitive procurements.



Approach to Evaluating Banking Fees

Approach 1 – Phoenix-Hecht Blue Book of Bank Prices

- For the pricing analysis, we used the Phoenix-Hecht Blue Book of Bank Pricing. Data in this publication was gathered in a survey of the actual prices paid by more than 720 institutions for cash management services. The size of organizations surveyed and the volume of cash management services used vary considerably in this database.
- In our experience, large institutions with high usage of cash management services can expect to see pricing in the 10th to 25th percentiles of Blue Book pricing.
- Although the Blue Book is one of the most comprehensive surveys of bank prices available, it does not provide fee information on every service offered by every bank. Therefore, comparative data for some of the services used by OST and DeIDOT was not available.
 - In total, we were able to obtain detailed information on fees representing 66.9% of OST's and DeIDOT's banking costs or \$1,207,255.
 - The percentage of services analyzed varied by bank, ranging from 45.8% for the DeIDOT M&T Bank relationship to 95.6% for the OST M&T Bank relationship. In both cases, we believe that the percentage of services analyzed is large enough to draw conclusions about the competitiveness of pricing across OST's and DeIDOT's entire relationship.

Approach 2 – Results from PFM's Database of Bank Prices

- PFM has helped a number of institutions rebid their banking services. We have compiled the pricing from these competitive procurements into a database of bank pricing. We use this data to help clients assess the competitiveness of their current fee schedule and to estimate the potential fee savings from a competitive procurement.
- Like the Phoenix-Hecht database, we generally expect that a large organization will be able to achieve pricing in the 10th – 25th percentiles. The PFM database can also be sorted by the size of the banking relationship. Banks generally charge higher fees for small relationships and offer the greatest discounts to their largest customers.
- We considered OST's and DeIDOT's unit pricing on a line-by-line basis and compared it to PFM's database.
 - In total, we were able to obtain detailed information on fees representing 59.3% of OST's and DeIDOT's banking costs or \$1,070,261.
 - The percentage of services analyzed varied by bank, ranging from 44.8% for BNY Mellon to 94.7% for the OST M&T Bank relationship. In both cases, we believe that the percentage of services analyzed is large enough to draw conclusions about the competitiveness of pricing across OST's and DeIDOT's entire relationship.



Summary of Analyzed Services

- OST (including DeIDOT) pays roughly \$1,800,000 per year for cash management services
- The table below summarizes the expected savings on analyzed services (those items that matched database pricing) at the 10th and 25th percentiles for each database.
- Based on analyzed services, PFM estimates that OST (including DeIDOT) could achieve annual savings ranging from \$105,213 to \$628,110 or 8.7% to 52.0% of total analyzed banking costs.
- Because this analysis is based on just the expenses that can be matched to the exact service in the databases, it is a very conservative estimate of possible savings.

Bank	Current Annual Cost	Estimate of Total Annual Savings	
		Phoenix-Hecht Pricing Database	PFM Pricing Database
BNY Mellon	\$241,080	\$28,333 - \$87,627	\$21,110 - \$45,819
Citizens Bank	\$140,638	\$27,341 - \$71,326	\$52,443 - \$67,759
JP Morgan	\$79,197	\$0 - \$6,861	\$0 - \$7,149
M&T Bank (DeIDOT)	\$286,062	\$45,101 - \$88,224	\$45,121 - \$78,271
M&T Bank (OST)	\$9,897	\$907 - \$5,262	\$5,172 - \$6,843
PNC Bank	\$1,046,771	\$3,531 - \$368,810	\$0 - \$279,176
Total Savings on Analyzed Services	\$1,803,643	\$105,213 - 628,110	\$123,846 - \$485,017



Summary of Total Relationship

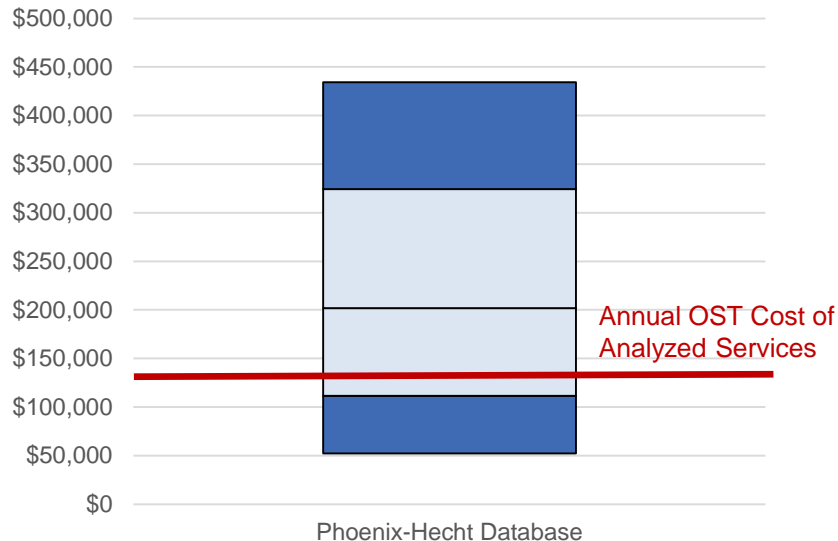
- PFM has found that banks often discount fees by a similar percentage across the full customer relationship. The table below shows the estimated savings assuming that the percentage savings calculated on analyzed services is applied to the entire relationship.
- Based on the complete package of services used, PFM estimates that OST (including DeIDOT) could achieve annual savings ranging from \$190,400 to \$966,989 or 10.6% to 53.6% of total banking costs.

Bank	Current Annual Cost	Estimate of Total Annual Savings	
		Phoenix-Hecht Pricing Database	PFM Pricing Database
BNY Mellon	\$241,080	\$48,885 - \$151,186	\$47,104 - \$102,237
Citizens Bank	\$140,638	\$37,130 - \$96,861	\$71,475 - \$92,351
JP Morgan	\$79,197	\$0 - \$7,642	\$0 - \$8,095
M&T Bank (DeIDOT)	\$286,062	\$98,525 - \$192,728	\$100,502 - \$174,339
M&T Bank (OST)	\$9,897	\$949 - \$5,506	\$5,459 - \$7,223
PNC Bank	\$1,046,771	\$4,913 - \$513,066	\$0 - \$448,703
Total Savings Applied to Total Relationship	\$1,803,643	\$190,400 - \$966,989	\$224,541 - \$832,948



BNY Mellon – Phoenix-Hecht Database Comparison

- Total annual fees paid to BNY Mellon: \$241,080 (excluding FDIC assessments).
- PFM was able to compare 58% of charges (worth \$139,730) to similar service items in the Phoenix-Hecht database. OST fees are reasonably competitive compared to average database pricing, but there is room for improvement. PFM estimates potential annual fee savings of \$28,333 to \$87,627 (20.3% to 62.7%).
- If a similar savings percentage is achieved across the entire BNY Mellon relationship, OST could expect annual savings of \$48,885 to \$151,186.

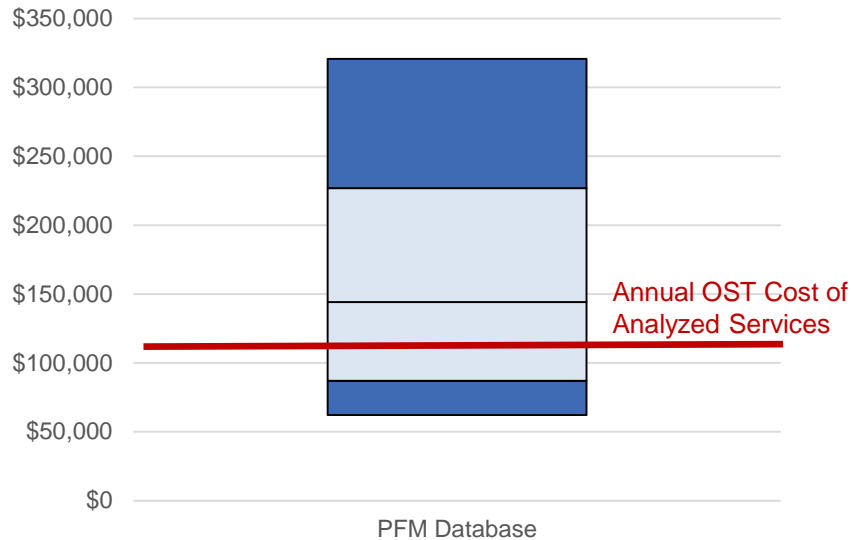


Analyzed Charges	\$139,730
90th Percentile	\$434,215
75th Percentile	\$324,153
Median	\$201,832
25th Percentile	\$111,396
10th Percentile	\$52,102



BNY Mellon – PFM Database Comparison

- Total annual fees paid to BNY Mellon: \$241,080 (excluding FDIC assessments).
- PFM was able to compare 44.8% of charges (worth \$108,043) to similar service items in the PFM database. OST fees are relatively low compared to average database pricing, but there is room for improvement. PFM estimates potential annual fee savings of \$21,110 to \$45,819 (19.5% to 42.4%).
- If a similar savings percentage is achieved across the entire BNY Mellon relationship, OST could expect annual savings of \$47,104 to \$102,237.



Analyzed Charges	\$108,043
90th Percentile	\$320,672
75th Percentile	\$226,862
Median	\$144,260
25th Percentile	\$86,933
10th Percentile	\$62,224



BNY Mellon Relationship Summary

	Phoenix-Hecht Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 104,895	\$ 39,621	37.8%	\$ 17,749	\$ 30,408
Lockbox Services	\$ 4,937	\$ 3,676	74.5%	\$ 2,729	\$ 3,633
Reconciliation Services	\$ 120	\$ -	0.0%	\$ -	\$ -
ACH & Wire Transaction Services	\$ 126,064	\$ 96,432	76.5%	\$ 31,625	\$ 77,356
Online Reporting	\$ 5,065	\$ -	0.0%	\$ -	\$ -
Total Costs	\$ 241,080	\$ 139,730	58.0%	\$ 52,102	\$ 111,396
Savings as % of Total Analyzed Cost				62.7%	20.3%
Savings on Analyzed Services				\$ 87,627	\$ 28,333
Savings Applied to Total Relationship				\$ 151,186	\$ 48,885

	PFM Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 104,895	\$ 18,216	17.4%	\$ 24,469	\$ 31,985
Lockbox Services	\$ 4,937	\$ 2,274	46.1%	\$ 854	\$ 1,335
Reconciliation Services	\$ 120	\$ -	0.0%	\$ -	\$ -
ACH & Wire Transaction Services	\$ 126,064	\$ 87,554	69.5%	\$ 36,901	\$ 53,613
Online Reporting	\$ 5,065	\$ -	0.0%	\$ -	\$ -
Total Costs	\$ 241,080	\$ 108,043	44.8%	\$ 62,224	\$ 86,933
Savings as % of Total Analyzed Cost				42.4%	19.5%
Savings on Analyzed Services				\$ 45,819	\$ 21,110
Savings Applied to Total Relationship				\$ 102,237	\$ 47,104



BNY Mellon – Lockbox Pricing

Pricing Details

- The lockbox at BNY Mellon is used by Pension to collect insurance payments. This is the smallest of the three lockboxes used by the State incurring only \$5,000 annually.
- In total, approximately 2,172 payments are collected through this lockbox annually. When all of the lockbox fees are considered, the cost to process an item through BNY Mellon’s lockbox is approximately \$2.30 per item.

BNY Mellon Lockbox Services	Current Price	Database Price Range	
		PFM	Phoenix-Hecht
Wholesale Lockbox (Monthly Maintenance)	\$80.00	\$50.00 - \$175.00	\$86.66 - \$178.36
Wholesale Lockbox (Per Item)	\$0.38	\$0.09 - \$0.39	\$0.25 - \$0.40
Lockbox Check Image Processing	\$0.03	\$0.03 - \$0.35	\$0.02 - \$0.04
Lockbox Deposit	\$1.50	\$0.04 - \$1.33	\$0.70 - \$2.65



BNY Mellon – Earnings Credit Rate Summary

"Net" Earnings Credit on Compensating Balance		
Ledger Balance		\$12,587,336
Less Float		\$6,451,348
Total Collected Balance		\$6,135,988
Less Reserve Requirement	10%	\$613,599
Available Balance		\$5,522,389
Earnings Credit	0.73% \$5,522,389 * 0.73% * 31/365	\$3,410
Less FDIC Assessment	0.14% \$1,448 / (\$12,587,336 * (31/365))	\$1,448
Net Earnings Credit	0.184% on Ledger Balance 0.376% on Collected Balance	\$1,962



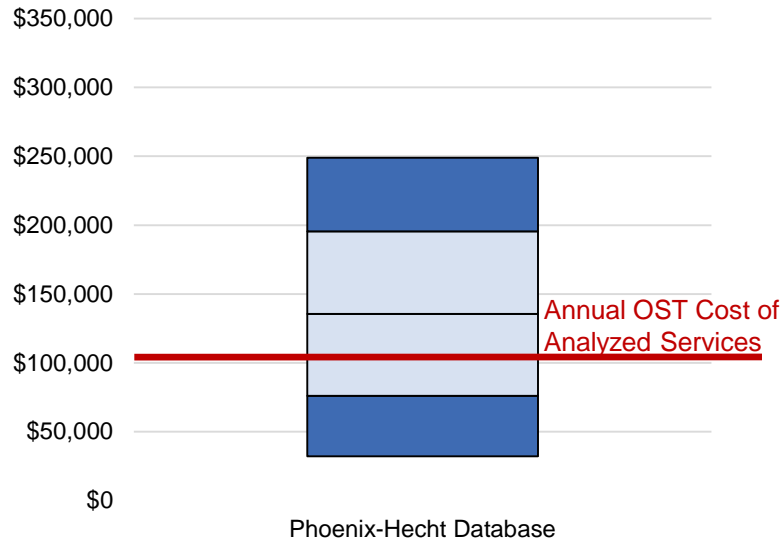
BNY Mellon Historical Balances & Earnings Credits

Month	Average Ledger Balance	Quoted ECR
Apr-16	\$11,773,490	0.23%
May-16	\$8,316,170	0.27%
Jun-16	\$13,244,155	0.27%
Jul-16	\$7,186,561	0.29%
Aug-16	\$7,566,302	0.30%
Sep-16	\$8,572,532	0.32%
Oct-16	\$7,447,003	0.33%
Nov-16	\$6,992,939	0.44%
Dec-16	\$7,786,089	0.50%
Jan-17	\$8,848,101	0.50%
Feb-17	\$9,003,474	0.51%
Mar-17	\$12,587,336	0.72%
Average	\$5,632,278	0.39%



Citizens Bank – Phoenix-Hecht Database Comparison

- Total annual fees paid to Citizens Bank: \$140,638 (excluding FDIC assessments).
- PFM was able to compare 73.6% of charges (worth \$103,562) to similar service items in the Phoenix-Hecht database. OST fees are slightly below average compared to database pricing, but there is room for improvement. PFM estimates potential annual fee savings of \$27,341 to \$71,326 (26.4% to 68.9%).
- If a similar savings percentage is achieved across the entire Citizens Bank relationship, OST could expect annual savings of \$37,130 to \$96,861.

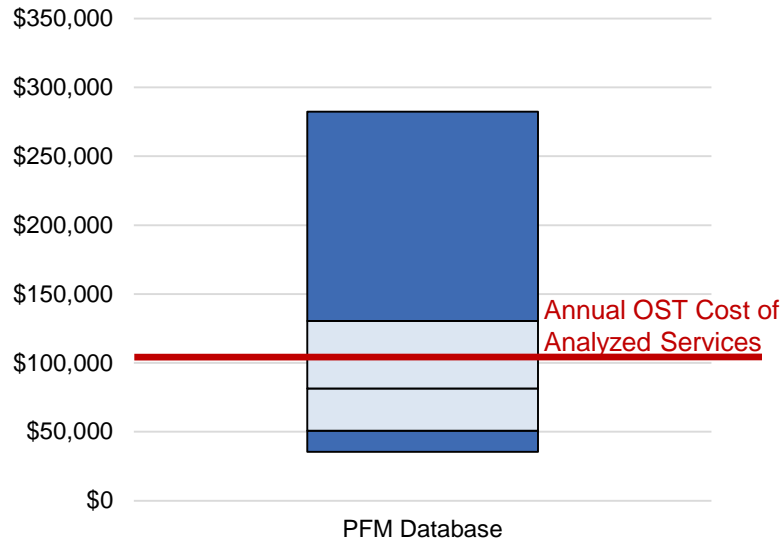


Analyzed Charges	\$103,562
90th Percentile	\$248,822
75th Percentile	\$195,544
Median	\$135,659
25th Percentile	\$76,221
10th Percentile	\$32,236



Citizens Bank – PFM Database Comparison

- Total annual fees paid to Citizens Bank: \$140,638 (excluding FDIC assessments).
- PFM was able to compare 73.4% of charges (worth \$103,189) to similar service items in the PFM database. OST fees are moderately high compared to average database pricing. PFM estimates potential annual fee savings of \$52,443 to \$67,759 (50.8% to 65.7%).
- If a similar savings percentage is achieved across the entire Citizens Bank relationship, OST could expect annual savings of \$71,475 to \$92,351.



Analyzed Charges	\$103,189
90th Percentile	\$282,289
75th Percentile	\$130,393
Median	\$81,519
25th Percentile	\$50,746
10th Percentile	\$35,429



Citizens Bank Relationship Summary

	Phoenix-Hecht Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 112,508	\$ 89,272	79.3%	\$ 27,067	\$ 65,877
Lockbox Services	\$ -	\$ -	0.0%	\$ -	\$ -
Reconciliation Services	\$ 10,884	\$ 2,600	23.9%	\$ 2,004	\$ 3,867
ACH & Wire Transaction Services	\$ 6,591	\$ 5,270	80.0%	\$ 801	\$ 1,864
Online Reporting	\$ 10,655	\$ 6,420	60.3%	\$ 2,364	\$ 4,612
Total Costs	\$ 140,638	\$ 103,562	73.6%	\$ 32,236	\$ 76,221
Savings as % of Total Analyzed Cost				68.9%	26.4%
Savings on Analyzed Services				\$ 71,326	\$ 27,341
Savings Applied to Total Relationship				\$ 96,861	\$ 37,130

	PFM Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 112,508	\$ 88,240	78.4%	\$ 31,653	\$ 45,890
Lockbox Services	\$ -	\$ -	0.0%	\$ -	\$ -
Reconciliation Services	\$ 10,884	\$ 3,320	30.5%	\$ 2,084	\$ 2,405
ACH & Wire Transaction Services	\$ 6,591	\$ 5,208	79.0%	\$ 972	\$ 1,223
Online Reporting	\$ 10,655	\$ 6,420	60.3%	\$ 720	\$ 1,228
Total Costs	\$ 140,638	\$ 103,189	73.4%	\$ 35,429	\$ 50,746
Savings as % of Total Analyzed Cost				65.7%	50.8%
Savings on Analyzed Services				\$ 67,759	\$ 52,443
Savings Applied to Total Relationship				\$ 92,351	\$ 71,475



Citizens Bank – Earnings Credit Rate Summary

"Net" Earnings Credit on Compensating Balance		
Ledger Balance		\$3,631,907
Less Float		\$1,582,863
Total Collected Balance		\$2,049,044
Less Reserve Requirement	10%	\$204,904
Available Balance		\$1,844,140
Earnings Credit	0.31% \$1,844,140 * 0.31% * 31/365	\$486
Less FDIC Assessment	0.14% \$438 / (\$3,631,907 * (31/365))	\$438
Net Earnings Credit	0.016% on Ledger Balance 0.028% on Collected Balance	\$49



Citizens Bank Historical Balances and Earnings Credits

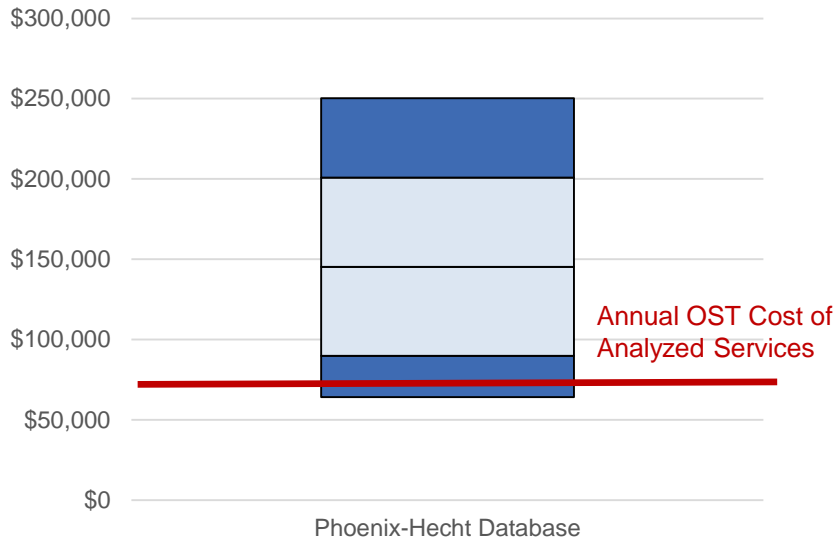
- Citizens Bank has begun to increase the earnings credit rate on the State's account, but it remains below market.

Month	Average Ledger Balance	Quoted ECR
Apr-16	\$5,546,051	0.23%
May-16	\$4,082,680	0.22%
Jun-16	\$3,502,174	0.22%
Jul-16	\$3,080,303	0.22%
Aug-16	\$3,370,410	0.22%
Sep-16	\$3,621,039	0.22%
Oct-16	\$3,798,185	0.22%
Nov-16	\$4,079,587	0.23%
Dec-16	\$3,407,727	0.23%
Jan-17	\$3,568,186	0.27%
Feb-17	\$3,638,137	0.27%
Mar-17	\$3,631,907	0.31%
Average	\$3,777,199	0.24%



JP Morgan – Phoenix-Hecht Database Comparison

- Total annual fees paid to JP Morgan: \$79,197 (excluding FDIC assessments).
- PFM was able to compare 89.8% of charges (worth \$71,100) to similar service items in the Phoenix-Hecht database. OST fees are relatively low compared to average database pricing. PFM estimates potential annual fee savings up to \$6,861 (to 9.6%).
- If a similar savings percentage is achieved across the entire JP Morgan relationship, OST could expect annual savings up to \$7,642.

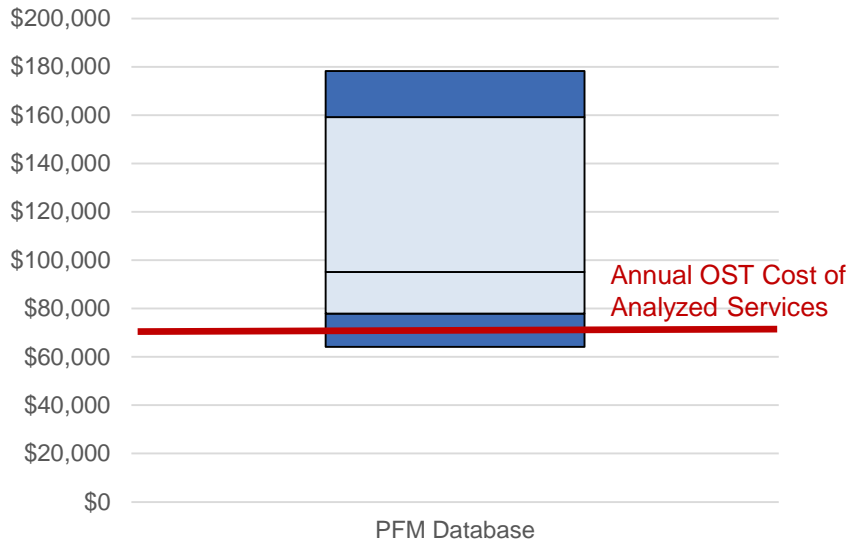


Analyzed Charges	\$71,100
90th Percentile	\$250,215
75th Percentile	\$200,931
Median	\$145,222
25th Percentile	\$89,935
10th Percentile	\$64,239



JP Morgan – PFM Database Comparison

- Total annual fees paid to JP Morgan: \$79,197 (excluding FDIC assessments).
- PFM was able to compare 88.3% of charges (worth \$69,940) to similar service items in the PFM database. OST fees are relatively low compared to average database pricing. PFM estimates potential annual fee savings of up to \$7,149 (10.2%).
- If a similar savings percentage is achieved across the entire JP Morgan relationship, OST could expect annual savings of up to \$8,095.



Analyzed Charges	\$69,940
90th Percentile	\$178,501
75th Percentile	\$158,424
Median	\$93,905
25th Percentile	\$76,565
10th Percentile	\$62,791



JP Morgan Relationship Summary

	Phoenix-Hecht Pricing Database					
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile	
Account Services	\$ 4,078	\$ 1,680	41.2%	\$ 7,859	\$ 11,286	
Lockbox Services	\$ 68,293	\$ 67,134	98.3%	\$ 54,444	\$ 74,767	
Reconciliation Services	\$ -	\$ -	0.0%	\$ -	\$ -	
ACH & Wire Transaction Services	\$ 1,572	\$ 1,566	99.6%	\$ 1,336	\$ 2,666	
Online Reporting	\$ 5,253	\$ 720	13.7%	\$ 600	\$ 1,215	
Total Costs	\$ 79,197	\$ 71,100	89.8%	\$ 64,239	\$ 89,935	
Savings as % of Total Analyzed Cost				9.6%	-26.5%	
Savings on Analyzed Services				\$ 6,861	\$ (18,835)	
Savings Applied to Total Relationship				\$ 7,642	\$ (20,980)	

	PFM Pricing Database					
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile	
Account Services	\$ 4,078	\$ 1,680	41.2%	\$ 574	\$ 1,074	
Lockbox Services	\$ 68,293	\$ 67,134	98.3%	\$ 61,508	\$ 74,413	
Reconciliation Services	\$ -	\$ -	0.0%	\$ -	\$ -	
ACH & Wire Transaction Services	\$ 1,572	\$ 1,126	71.6%	\$ 709	\$ 1,079	
Online Reporting	\$ 5,253	\$ -	0.0%	\$ -	\$ -	
Total Costs	\$ 79,196	\$ 69,940	88.3%	\$ 62,791	\$ 76,565	
Savings as % of Total Analyzed Cost				10.2%	-9.5%	
Savings on Analyzed Services				\$ 7,149	\$ (6,625)	
Savings Applied to Total Relationship				\$ 8,095	\$ (7,501)	



JP Morgan – Lockbox Pricing

Pricing Details

- The lockbox at JP Morgan is used by the Division of Corporations to collect franchise tax payments. This lockbox sees the highest volume in April and May. JP Morgan's lockbox fees are over \$64,000 per year.
- In total, approximately 207,000 payments are collected through this lockbox annually. When all of the lockbox fees are considered, the cost to process a check through JP Morgan's lockbox is approximately \$0.31 per item.
- Overall, PFM believes that the State is receiving very competitive pricing from JP Morgan for their lockbox services.

JP Morgan Lockbox Services	Current Price	Database Price Range (10 th – 90 th Percentile)	
		PFM	Phoenix-Hecht
Wholesale Lockbox (Monthly Main)	\$75.00	\$60.00 - \$168.75	\$86.66 - \$178.36
Wholesale Lockbox (Per Item)	\$0.40	\$0.08 - \$0.40	\$0.25 - \$0.40
Lockbox Data Capture	\$0.00	\$0.01 – \$0.02	\$0.01 - \$0.11
Retail Lockbox (Per Item)	\$0.13 - \$0.14	\$0.13 – \$0.24	\$0.09 - \$0.24
Lockbox Data Transmission Item	\$0.01	\$0.01 - \$0.11	\$0.01 - \$0.11



JP Morgan – Earnings Credit Rate Summary

"Net" Earnings Credit on Compensating Balance		
Ledger Balance		\$1,218,833
Less Float		\$194,762
Total Collected Balance		\$1,024,071
Less Reserve Requirement	0%	\$0
Available Balance		\$1,024,071
Earnings Credit	0.75% \$1,024,071 * 0.75% * 31/365	\$652
Less FDIC Assessment	0.12% \$125 / (\$1,218,833 * (31/365))	\$125
Net Earnings Credit	0.510% on Ledger Balance 0.607% on Collected Balance	\$528



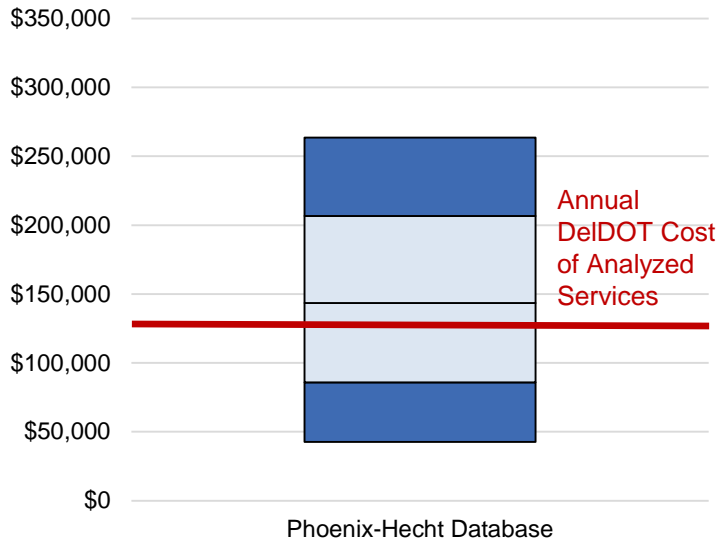
JP Morgan Historical Balances & Earnings Credits

Month	Average Ledger Balance	Quoted ECR
Apr-16	\$2,256,291	0.20%
May-16	\$15,732,719	0.25%
Jun-16	\$5,720,969	0.25%
Jul-16	\$1,472,269	0.30%
Aug-16	\$7,469,393	0.30%
Sep-16	\$2,264,375	0.30%
Oct-16	\$3,424,982	0.30%
Nov-16	\$7,159,265	0.45%
Dec-16	\$2,527,312	0.50%
Jan-17	\$467,584	0.50%
Feb-17	\$1,102,108	0.50%
Mar-17	\$1,218,833	0.75%
Average	\$2,796,321	0.38%



M&T Bank (DeIDOT) – Phoenix-Hecht Database Comparison

- Total annual fees paid to M&T Bank: \$286,062 (excluding FDIC assessments).
- PFM was able to compare 45.8% of charges (worth \$130,949) to similar service items in the Phoenix-Hecht database. DeIDOT fees are moderately high compared to average database pricing. PFM estimates potential annual fee savings of \$45,101 to \$88,224 (34.4% to 67.4%).
- If a similar savings percentage is achieved across the entire M&T Bank relationship, DeIDOT could expect annual savings of \$98,525 to \$192,728.

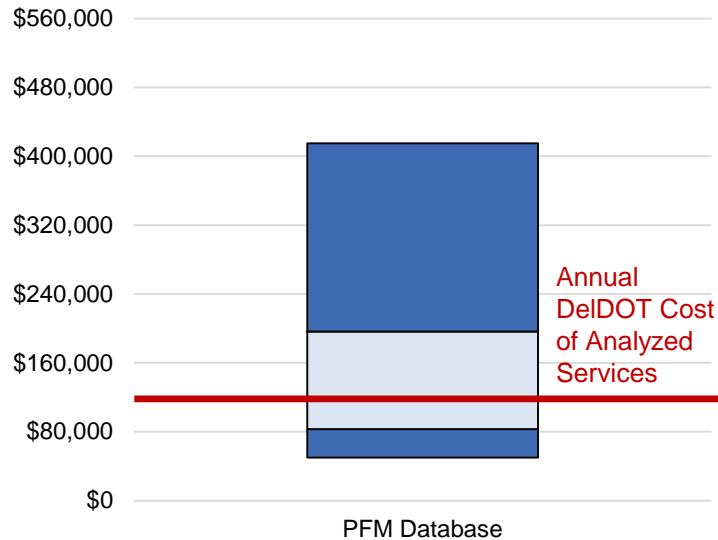


Analyzed Charges	\$130,949
90th Percentile	\$263,456
75th Percentile	\$206,681
Median	\$143,484
25th Percentile	\$85,848
10th Percentile	\$42,725



M&T Bank (DeIDOT) – PFM Database Comparison

- Total annual fees paid to M&T Bank: \$286,062 (excluding FDIC assessments).
- PFM was able to compare 44.9% of charges (worth \$128,430) to similar service items in the PFM database. DeIDOT fees are average compared to database pricing, so there is room for improvement. PFM estimates potential annual fee savings of \$45,121 to \$78,271 (35.1% to 60.9%).
- If a similar savings percentage is achieved across the entire M&T Bank relationship, DeIDOT could expect annual savings of \$100,502 to \$174,339.



Analyzed Charges	\$128,430
90th Percentile	\$414,850
75th Percentile	\$196,357
Median	\$119,343
25th Percentile	\$83,308
10th Percentile	\$50,181



M&T Bank (DeIDOT) Relationship Summary

	Phoenix-Hecht Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 253,208	\$ 107,569	42.5%	\$ 33,827	\$ 64,231
Lockbox Services	\$ -	\$ -	0.0%	\$ -	\$ -
Reconciliation Services	\$ 2,957	\$ 677	22.9%	\$ 433	\$ 812
ACH & Wire Transaction Services	\$ 24,617	\$ 19,703	80.0%	\$ 4,888	\$ 10,297
Online Reporting	\$ 5,280	\$ 3,000	56.8%	\$ 3,577	\$ 10,507
Total Costs	\$ 286,062	\$ 130,949	45.8%	\$ 42,725	\$ 85,848
Savings as % of Total Analyzed Cost				67.4%	34.4%
Savings on Analyzed Services				\$ 88,224	\$ 45,101
Savings Applied to Total Relationship				\$ 192,728	\$ 98,525

	PFM Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 253,208	\$ 107,390	42.4%	\$ 40,020	\$ 68,652
Lockbox Services	\$ -	\$ -	0.0%	\$ -	\$ -
Reconciliation Services	\$ 2,957	\$ 1,877	63.5%	\$ 624	\$ 826
ACH & Wire Transaction Services	\$ 24,617	\$ 19,163	77.8%	\$ 7,108	\$ 9,916
Online Reporting	\$ 5,280	\$ -	0.0%	\$ 2,407	\$ 3,914
Total Costs	\$ 286,062	\$ 128,430	44.9%	\$ 50,159	\$ 83,308
Savings as % of Total Analyzed Cost				60.9%	35.1%
Savings on Analyzed Services				\$ 78,271	\$ 45,121
Savings Applied to Total Relationship				\$ 174,339	\$ 100,502



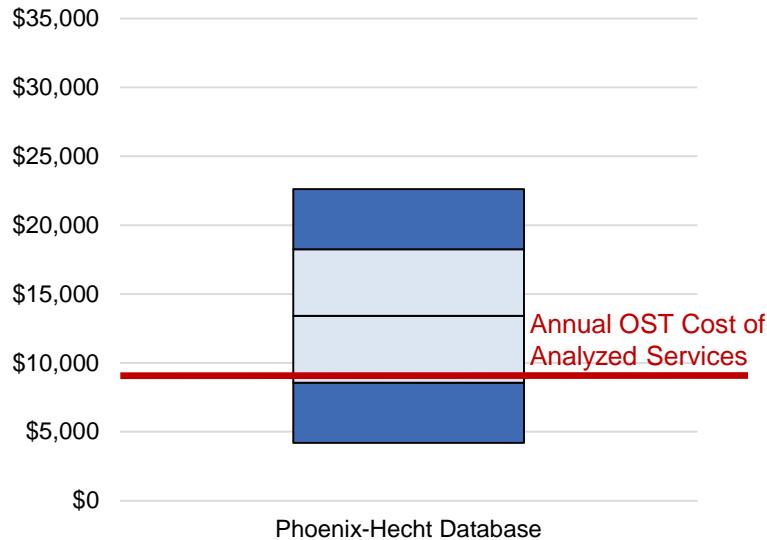
M&T Bank (DeIDOT) – Earnings Credit Rate Summary

"Net" Earnings Credit on Compensating Balance		
Ledger Balance		\$26,622,340
Less Float		\$444,546
Total Collected Balance		\$26,177,794
Less Reserve Requirement	10%	\$2,617,779
Available Balance		\$23,560,014
Earnings Credit	0.50% \$23,560,014 * 0.50% * 30/365	\$9,682
Less FDIC Assessment	0.06% \$1,331 / (\$26,622,340 * (30/365))	\$1,331
Net Earnings Credit	0.382% on Ledger Balance 0.388% on Collected Balance	\$8,351



M&T Bank (OST) – Phoenix-Hecht Database Comparison

- Total annual fees paid to M&T Bank: \$9,897 (excluding FDIC assessments).
- PFM was able to compare 95.6% of charges (worth \$9,459) to similar service items in the Phoenix-Hecht database. OST fees are slightly below average compared to database pricing, but there is room for improvement. PFM estimates potential annual fee savings of \$907 to \$5,262 (9.6% to 55.6%).
- If a similar savings percentage is achieved across the entire M&T Bank relationship, OST could expect annual savings of \$949 to \$5,506.

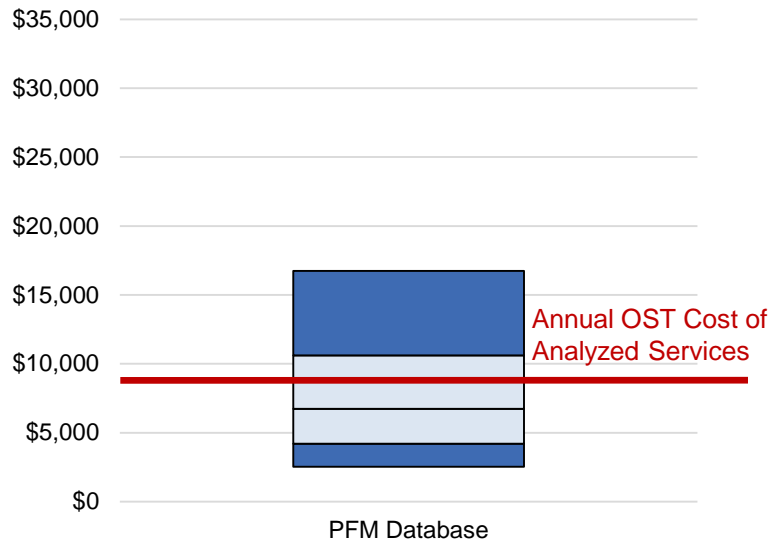


Analyzed Charges	\$9,459
90th Percentile	\$22,610
75th Percentile	\$18,255
Median	\$13,406
25th Percentile	\$8,552
10th Percentile	\$4,197



M&T Bank (OST) – PFM Database Comparison

- Total annual fees paid to M&T Bank: \$9,897 (excluding FDIC assessments).
- Because of OST's relatively small banking relationship with M&T Bank, we used a subset of PFM's database for this analysis. We limited the analysis to relationship with total annual banking fees of less than \$100,000. We were able to compare 94.7% of charges (worth \$9,376) to similar service items in PFM's database. OST fees are moderately high compared to average database pricing. PFM estimates potential annual fee savings of \$5,172 to \$6,843 (55.2% to 73.0%).
- If a similar savings percentage is achieved across the entire M&T Bank relationship, OST could expect annual savings of \$5,459 to \$7,223.



Analyzed Charges	\$9,376
90th Percentile	\$16,746
75th Percentile	\$10,610
Median	\$6,739
25th Percentile	\$4,204
10th Percentile	\$2,533



M&T Bank (OST) Relationship Summary

	Phoenix-Hecht Pricing Database					
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile	
Account Services	\$ 9,877	\$ 9,439	95.6%	\$ 4,177	\$ 8,507	
Lockbox Services	\$ -	\$ -	0.0%	\$ -	\$ -	
Reconciliation Services	\$ -	\$ -	0.0%	\$ -	\$ -	
ACH & Wire Transaction Services	\$ 20	\$ 20	100.0%	\$ 19	\$ 45	
Online Reporting	\$ -	\$ -	0.0%	\$ -	\$ -	
Total Costs	\$ 9,897	\$ 9,459	95.6%	\$ 4,197	\$ 8,552	
Savings as % of Total Analyzed Cost				55.6%	9.6%	
Savings on Analyzed Services				\$ 5,262	\$ 907	
Savings Applied to Total Relationship				\$ 5,506	\$ 949	

	PFM Pricing Database					
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile	
Account Services	\$ 9,877	\$ 9,376	94.9%	\$ 2,533	\$ 4,204	
Lockbox Services	\$ -	\$ -	0.0%	\$ -	\$ -	
Reconciliation Services	\$ -	\$ -	0.0%	\$ -	\$ -	
ACH & Wire Transaction Services	\$ 20	\$ -	0.0%	\$ -	\$ -	
Online Reporting	\$ -	\$ -	0.0%	\$ -	\$ -	
Total Costs	\$ 9,897	\$ 9,376	94.7%	\$ 2,533	\$ 4,204	
Savings as % of Total Analyzed Cost				73.0%	55.2%	
Savings on Analyzed Services				\$ 6,843	\$ 5,172	
Savings Applied to Total Relationship				\$ 7,223	\$ 5,459	



M&T Bank (OST) – Earnings Credit Rate Summary

"Net" Earnings Credit on Compensating Balance		
Ledger Balance		\$648,798
Less Float		\$5,421
Total Collected Balance		\$643,377
Less Reserve Requirement	10%	\$64,338
Available Balance		\$579,039
Earnings Credit	0.22% \$579,039 * 0.22% * 31/365	\$108
Less FDIC Assessment	0.18% \$98 / (\$648,798 * (31/365))	\$98
Net Earnings Credit	0.019% on Ledger Balance 0.019% on Collected Balance	\$10



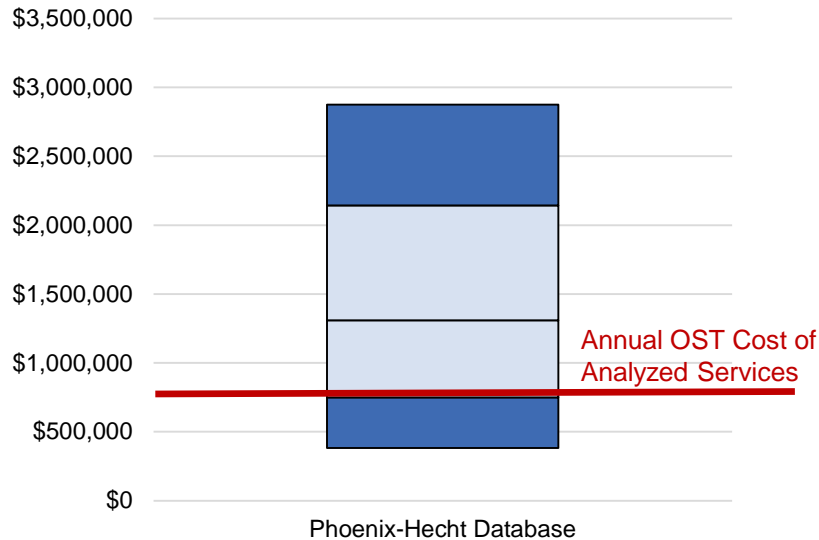
M&T Bank (OST) – Historical Balances and Earnings Credits

Month	Average Ledger Balance	Quoted ECR
Apr-16	\$1,497,379	0.22%
May-16	\$1,418,861	0.22%
Jun-16	\$1,415,335	0.22%
Jul-16	\$1,208,893	0.22%
Aug-16	\$1,183,488	0.22%
Sep-16	\$1,373,115	0.22%
Oct-16	\$1,344,963	0.22%
Nov-16	\$1,137,129	0.22%
Dec-16	\$627,975	0.22%
Jan-17	\$598,149	0.22%
Feb-17	\$588,705	0.22%
Mar-17	\$648,798	0.22%
Average	\$1,086,899	0.22%



PNC Bank – Phoenix-Hecht Database Comparison

- Total annual fees paid to PNC Bank: \$1,046,771 (excluding FDIC assessments).
- PFM was able to compare 71.9% of charges (worth \$752,456) to similar service items in the Phoenix-Hecht database. OST fees are relatively low compared to average database pricing, but there is room for improvement. PFM estimates potential annual fee savings of \$3,531 to \$368,810 (0.5% to 49.0%).
- If a similar savings percentage is achieved across the entire PNC Bank relationship, OST could expect annual savings of \$4,913 to \$513,100.

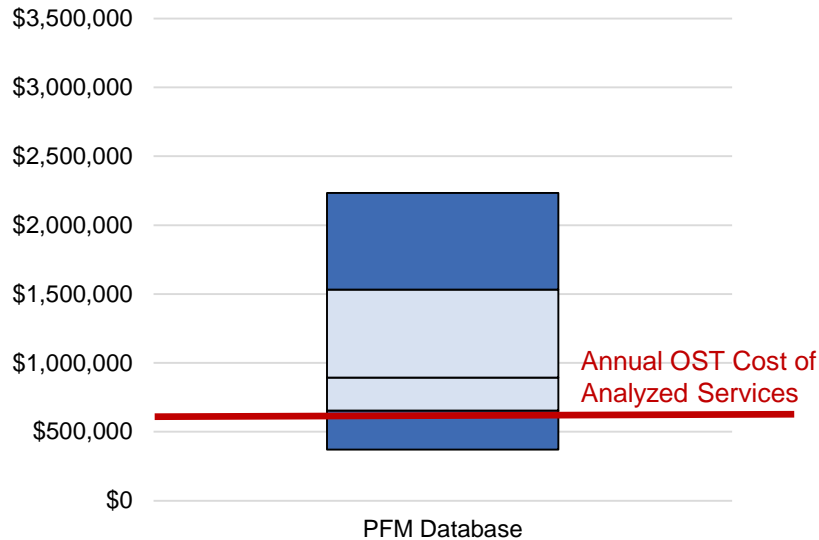


Analyzed Charges	\$752,456
90th Percentile	\$2,873,189
75th Percentile	\$2,143,204
Median	\$1,308,643
25th Percentile	\$748,924
10th Percentile	\$383,645



PNC Bank – PFM Database Comparison

- Total annual fees paid to PNC Bank: \$1,046,771 (excluding FDIC assessments).
- PFM was able to compare 62.2% of charges (worth \$651,285) to similar service items in the PFM database. OST fees are relatively low compared to average database pricing, but there is room for improvement. PFM estimates potential annual fee savings of up to \$279,176 (42.9%).
- If a similar savings percentage is achieved across the entire PNC Bank relationship, OST could expect annual savings of up to \$448,703.



Analyzed Charges	\$651,285
90th Percentile	\$2,234,264
75th Percentile	\$1,530,983
Median	\$892,454
25th Percentile	\$654,417
10th Percentile	\$372,108



PNC Bank Relationship Summary

	Phoenix-Hecht Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 175,161	\$ 119,978	68.5%	\$ 88,794	\$ 176,656
Lockbox Services	\$ 322,418	\$ 223,806	69.4%	\$ 234,143	\$ 301,964
Reconciliation Services	\$ 110,956	\$ 51,732	46.6%	\$ 30,672	\$ 57,093
ACH & Wire Transaction Services	\$ 264,289	\$ 241,690	91.4%	\$ 25,724	\$ 114,344
Online Reporting	\$ 173,947	\$ 115,250	66.3%	\$ 4,312	\$ 98,867
Total Costs	\$ 1,046,771	\$ 752,456	71.9%	\$ 383,645	\$ 748,924
Savings as % of Total Analyzed Cost				49.0%	0.5%
Savings on Analyzed Services				\$ 368,810	\$ 3,531
Savings Applied to Total Relationship				\$ 513,066	\$ 4,913

	PFM Pricing Database				
	Total Cost	Total Analyzed Costs (\$)	Total Analyzed Costs (%)	10th Percentile	25th Percentile
Account Services	\$ 175,161	\$ 105,758	60.4%	\$ 75,796	\$ 109,685
Lockbox Services	\$ 322,418	\$ 204,895	63.5%	\$ 160,672	\$ 318,522
Reconciliation Services	\$ 110,956	\$ 50,097	45.2%	\$ 27,415	\$ 39,139
ACH & Wire Transaction Services	\$ 264,289	\$ 175,285	66.3%	\$ 60,978	\$ 99,082
Online Reporting	\$ 173,947	\$ 115,250	66.3%	\$ 47,247	\$ 87,990
Total Costs	\$ 1,046,771	\$ 651,285	62.2%	\$ 372,108	\$ 654,417
Savings as % of Total Analyzed Cost				42.9%	-0.5%
Savings on Analyzed Services				\$ 279,176	\$ (3,133)
Savings Applied to Total Relationship				\$ 448,703	\$ (5,035)



PNC Bank – Lockbox Pricing

Pricing Details

- The lockbox at PNC is used by the Division of Unemployment to collect Training Tax and Unemployment Insurance payments. Lockbox volume peaks quarterly in February, May, August, and November. The State pays over \$320,000 per year to PNC for lockbox services.
- In total, approximately 115,400 payments are collected through this lockbox annually. When all of the lockbox fees are considered, the cost to process an item through PNC Bank’s lockbox is approximately \$2.79 per item.
- While it is beyond the scope of this review to determine the processing requirements for each lockbox, we did note that PNC is manually capturing a significant amount of data from source documents received at the Division of Unemployment lockbox. The bank captures approximately 27.6 million keystrokes per year, which costs the State roughly \$138,000. The manual keying of this much data suggests that the lockbox may not be set up to take advantage of data capture technology or other collection methods that could automate the process to reduce costs.

PNC Lockbox Services	Current Price	Database Price Range	
		PFM	Phoenix-Hecht
Retail Lockbox (Monthly Maintenance)	\$250.00	\$100.00 - \$250.00	\$48.23 - \$291.44
Retail Lockbox (Per Item)	\$0.30 - \$0.40	\$0.14 - \$0.32	\$0.11 - \$0.24
Wholesale Lockbox (Monthly Maintenance)	\$140.00	\$67.80 - \$162.20	\$86.66 - \$178.36
Wholesale Lockbox (Per Item)	\$0.35 - \$0.45	\$0.11 - \$0.48	\$0.24 - \$0.39
Lockbox Data Capture	\$0.07	\$0.01 - \$0.13	\$0.01 - \$0.10
Lockbox Keying ²	\$0.0049	\$0.005 - \$0.03	\$0.007 - \$0.02
Lockbox Check Image Processing	\$0.05	\$0.02 - \$0.36	\$0.02 - \$0.04
Lockbox Deposit	\$1.25	\$0.07 - \$1.43	\$0.67 - \$2.62

¹Additional information on these databases and our approach to evaluating bank fees can be found in the Pricing Section.

²This line item is titled Data Capture on the PNC statement but matches the description of Phoenix-Hecht’s Lockbox Keying.



PNC Bank – Earnings Credit Rate Summary

"Net" Earnings Credit on Compensating Balance		
Ledger Balance		\$56,098,150
Less Float		\$213,795
Total Collected Balance		\$55,884,355
Less Reserve Requirement	0%	\$0
Available Balance		\$55,884,355
Earnings Credit	0.35% \$55,884,355 * 0.35% * 31/365	\$16,596
Less FDIC Assessment	0.17% \$7,965 / (\$56,098,150 * (31/365))	\$7,965
Net Earnings Credit	0.181% on Ledger Balance 0.182% on Collected Balance	\$8,631



PNC Bank Historical Balances and Earnings Credits

Month	Average Ledger Balance	Quoted ECR
Apr-16	\$49,558,049	0.35%
May-16	\$45,771,321	0.35%
Jun-16	\$50,029,397	0.35%
Jul-16	\$41,209,891	0.35%
Aug-16	\$42,492,451	0.35%
Sep-16	\$38,650,990	0.35%
Oct-16	\$40,784,090	0.35%
Nov-16	\$49,182,186	0.35%
Dec-16	\$40,151,650	0.35%
Jan-17	\$50,047,354	0.35%
Feb-17	\$43,946,051	0.35%
Mar-17	\$56,098,150	0.35%
Average	\$45,660,132	0.35%



Section 6: Review of State Agencies



Section 6: Review of State Agencies

Introduction

- As part of PFM's discovery meetings, we met with individuals from multiple State agencies to understand how the State's existing banking structure is working for them, to identify any issues or challenges, and to discuss possible service enhancements.
- During 5 days of on-site meetings and additional teleconferences, we obtained an appreciation of each agency's:
 - Mission and goals
 - Type of funds received and the process used to deposit the money at the bank
 - Various methods of disbursing funds
 - Challenges or problems encountered with the existing banking structure or partners
- The majority of end-users had positive comments about how the existing banking structure meets their operational needs and a favorable opinion of the State's banking partners.
- PFM used the information we learned through these discovery meetings to identify common themes and to make specific recommendations related to the State's current banking structure.
- Details about the agency's banking arrangements are documented in this section of this report. The report summarizes our findings for each department. The scope of this engagement did not cover a comprehensive assessment of each group's cash management processes, but we were able to get a good understanding of the banking arrangements and discuss challenges and areas where additional services could allow the agency to better fulfill their mission.



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Department of Agriculture

Existing Service Providers	Citizens – Over-the-counter branch deposits
Account Structure	No separate bank accounts associated with Department of Agriculture
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Cash & Check <ul style="list-style-type: none"> - Deposited by employees to a local Citizens bank branch (Racetracks, State Forests, Administration) - Administration makes deposits 3 times per week • Merchant cards <ul style="list-style-type: none"> - Merchant cards accepted at racetracks
Disbursements	<ul style="list-style-type: none"> • All disbursements initiated through FSF
Merchant Card	<ul style="list-style-type: none"> • Department of Agriculture is transitioning to Govolution. Virtual terminals are now being used at several locations and employees are hand-entering card information online. Once the implementation to BAMS is complete, EMV compatible merchant card terminals will be purchased. • PCI Compliance <ul style="list-style-type: none"> - The department is aware of its PCI responsibilities. The department would like to move away from the current process where employees handle merchant cards; this issue should be resolved when new merchant card terminals are purchased.
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none"> • QuickBooks • Administration uses FSF for all reconciliation
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none"> • The Administration Building would be a good candidate for remote deposit capture • Reduce handling and receipt of merchant card information
Recommendations	<ul style="list-style-type: none"> • Implement RDC • Provide new EMV terminals once BAMS is implemented • Complete implementation to Govolution • Provide PCI training



Department of Children, Youth & Families

Existing Service Providers	<ul style="list-style-type: none">• PNC Bank<ul style="list-style-type: none">– Petty cash demand deposit checking– Emergency needs accounts– Over-the-counter (branch) collections• KeyBank<ul style="list-style-type: none">– Stored value card
Account Structure	PNC – 8 accounts
Collections / Incoming Receipts	<ul style="list-style-type: none">• Direct deposits into imprest account for adoptions• Two locations making deposits to the bank, all deposits are physically brought to a PNC branch• Collection of cash from juveniles who are taken into custody<ul style="list-style-type: none">– Potential to return funds held for juveniles by a stored value card
Disbursements	<ul style="list-style-type: none">• Majority of payments are processed through FSF• There is a separate check writing process out of an imprest account for adoptions• Direct deposit is mandatory. Unbanked recipients receive their payments on a stored-value card.<ul style="list-style-type: none">– First month payment to foster payees is made by check; in subsequent months, payment is made by direct deposit (or card)– Currently, there are 70 to 75 active stored value cards in use• When there is an issue with a direct deposit into a foster payee’s account and the payment is returned, pink checks are used for payment• Checks for emergency child accounts are written on site by staff• Funds for social security payments are directly deposited into imprest checking accounts for the benefit of specific children<ul style="list-style-type: none">– These funds are transferred to the State’s Trust fund– Checks for imprest accounts are printed at Department of Children, Youth, and Families– The checks are taken to OST by courier to be signed and returned to Department of Children, Youth, and Families. The checks are then deposited into the State’s Trust fund
Merchant Card	None - The Department of Children, Youth, and Families is currently not charging fees for day care licensing or criminal background checks. The department is interested in assessing these fees and would need to have an established merchant account for this function.



Department of Children, Youth & Families

Lockbox	None
Armored Car Services	None
Satisfaction with Banking Services	Not indicated
Desired Services by Department	<ul style="list-style-type: none">• Would like to accept merchant card payments for fees associated with day care licensing and criminal background checks• The Department of Children, Youth, and Families faces challenges with the State's split p-card functionality. There are caseworkers who need to travel but can only use the purchasing functionality on their individual cards.• The Department would like online access to review cleared disbursement checks that are posted to DCYF's PNC accounts• Reduce the need to take deposits to the bank branch by implementing remote deposit capture
Recommendations	<ul style="list-style-type: none">• Set up a merchant ID for processing fees related to criminal background checks and daycare licenses• Use intra-bank transfers in place of a check drawn on the imprest fund to move money to the State's trust fund. Alternatively, OST could consider allowing the department to sign the checks they issue.



Department of Corrections (DOC)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none">– Over the counter collections– Check disbursements
Account Structure	<p>PNC – 20 accounts <i>Currently in process of closing several accounts. Will be reduced to 12 accounts.</i></p>
Collections / Incoming Receipts	<ul style="list-style-type: none">• Cash & Money Orders<ul style="list-style-type: none">– At intake, correction facilities hold cash for inmates– Intake policy is to accept no more than \$600 in cash to be deposited in DOC inmate account– If an inmate has cash in excess of \$600, the DOC assists in setting up a personal bank account for these individuals. The DOC has had difficulty finding a bank to set up an account for these individuals. Ally Bank has been willing to set up accounts, but DOC has occasionally been forced to hold additional funds for inmates in DOC account.– DOC believes there may be a safety risk for an inmate with too much money in their commissary account.– Cash and money orders are also accepted for the benefit of inmates.– Employees take deposits to bank daily. Only employees at the Gander Hill facility are escorted by an officer.• Merchant cards<ul style="list-style-type: none">– Accepts deposits to inmates accounts at kiosks• Electronic Receipts<ul style="list-style-type: none">– Receive payments from U.S. Marshalls or other state agencies to cover the cost of Delaware Department of Correction officers– Receive per diem payments from U.S. Marshalls for housing offenders that commit federal crimes
Disbursements	<ul style="list-style-type: none">• Cash & Checks<ul style="list-style-type: none">– Cash is paid out to inmates upon release. The amount paid in cash is limited depending on correction facility. The remaining balance in the inmate account is paid by check.– Positive pay is not currently used when checks are issued to released inmates.
Merchant Card	<ul style="list-style-type: none">• Accept merchant card payments through TouchPay GTL kiosks. The contract for the TouchPay GTL kiosks is held by DTI.• TouchPay GTL is funding DOC daily for payments received



Department of Correction (DOC)

Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• 12 -15 employees have access to PNC PINACLE• Electronic receipts, such as Federal Government payments, can be difficult to reconcile. The Federal Government will sometimes pay a lump sum to cover invoices for several different agencies and the DOC has to do research to determine how to distribute the payments.• Occasionally, the check numbers reported by PNC are incorrect, causing reconciliation challenges
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none">• Interested in considering the use of positive pay• Discussed issuing prepaid cards to inmates being released; DOC is concerned about the fees and whether recipients would incur fees to use the card at retail locations. If fees are reasonable for DOC and recipients, DOC would be interested in exploring prepaid cards to avoid handling cash and issuing checks.
Recommendations	<ul style="list-style-type: none">• It was noted during the discovery meeting that information about new or useful bank services (such as positive pay) are not always known about at the department level. If time permits, the State's bank relationship managers should attempt to consistently educate department heads about available bank services that can prevent fraud or improve efficiency.• Consider the use of prepaid debit cards for returning funds to released inmates.• Use positive pay on checks written to inmates when they are released.



Department of Education

Divisions Interviewed	Lake Forest School District Appoquinimink School District Red Clay Consolidated School District
Existing Service Providers	<ul style="list-style-type: none">• BNY Mellon<ul style="list-style-type: none">- Collections by remote deposit capture• Citizens Bank<ul style="list-style-type: none">- Over-the-counter deposits at branch• PNC Bank<ul style="list-style-type: none">- Disbursements by ACH- Checking account for Petty cash• M&T Bank<ul style="list-style-type: none">- Over-the-counter deposits branch banking needs (TD Bank, Shore United Bank, etc.)
Account Structure	<ul style="list-style-type: none">• 62 accounts with PNC• 1 account with Citizens Bank• 5 accounts with M&T Bank



Department of Education

Collections / Incoming Receipts

- Main source of funding from the State – money is budgeted through FSF
 - Grant balances from Federal and State money are loaded onto FSF to be spent by the schools
 - Local dollars come in as tax revenues from the counties to the State to be used by the schools
 - Local dollars from the lower school districts (Kent and Sussex), come directly from the counties
- Funding is provided to schools by ACH
 - Funds are budgeted to schools through FSF
- Local funds
 - Deposits taken to local branches (Citizens Bank)
 - Some checks deposited by RDC (BNY Mellon)
- Appoquinimink
 - School cafeteria managers take money to Citizens Bank to be deposited into State account
 - Alternative solutions were tried (couriers, armored car, consolidated point of collection) but the Department found that having each manager deposit the cash was the best solution
 - Bundled cash and checks – some require immediate verification of the deposit at branch
 - Largest volume of cash: \$40,000 in a single day
 - Every school has a safe, however safes are not usually bolted down
- Red Clay
 - Courier takes deposits to bank – collection at 26 locations
 - Cash and checks are bundled and a separate deposit ticket is prepared for each school
 - Immediate verification at branch is not necessary
 - Money is brought to TD Bank because the local Citizens Bank branch could not handle the volume of deposits
 - Approximately \$6,000 to \$7,000 daily receipts for nutrition
 - TD Bank writes check to be processed through FSF
 - Challenges with teachers collecting cash for field trips and other events – they are supposed to take money to office, however some teachers may be holding cash back so they can make refunds; these deposits would not be hitting the books
- Lake Forest
 - 6 schools and 1 quasi school making deposits, each with own deposit ticket – some require immediate verification at the branch
 - Citizens Bank is too far away, so cash deposits at Shore United Bank (local branch); a check is then written on this account to move money to the State account.
 - Large volumes of cash is received during sporting events



Department of Education

Disbursements	<ul style="list-style-type: none">• Appoquinimink and Red Clay – use of petty cash accounts for check writing, no cash on hand• Student internal accounts<ul style="list-style-type: none">– Prepaid lunches – refunds of money for students that leave during the year– Appoquinimink writes refunds out of petty cash account• Employee reimbursements (mileage)<ul style="list-style-type: none">– ACH through FSF
Merchant Card	<ul style="list-style-type: none">• PayPAMS – Point of sale / management system<ul style="list-style-type: none">– Payment interface for nutrition money (merchant cards and online checks)– Parents pay a service fee (\$2.95)– Transfer of funds through PayPAMS into FSF– Each school district contracted separately and not all schools use– Schools pay no fees for use of PayPAMS– Used by Appoquinimink and Red Clay, Lake Forest uses MySchoolBucks• PCS Revenue Control Systems<ul style="list-style-type: none">– POS System– Tracks student balances– Pin pads for students to pay for lunch• Red Clay<ul style="list-style-type: none">– Card acceptances for adult programs and summer program through Govolution• Appoquinimink<ul style="list-style-type: none">– Use of Educational Networks instead of Govolution– Pays for Educational Network by means of convenience fee– Requires guidance from the OST on using the Square to accept payments
Lockbox	None
Armored Car Services	None



Department of Education

Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• PCS - reconciliation report is used to verify how much money came in by check or cash
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none">• A more efficient way to handle cash and make refunds• Schools need quick way to set up a web interface for people to make payments<ul style="list-style-type: none">– Donations websites– Ticket sales programs– Building rental payments
Recommendations	<ul style="list-style-type: none">• Cash safes / cash boxes• Evaluate additional locations that could use remote deposit capture



Department of Finance | Division of Revenue

Existing Service Providers	<ul style="list-style-type: none">• PNC Bank<ul style="list-style-type: none">– Disbursements by ACH– Disbursements by check (controlled disbursement)• Citizens Bank<ul style="list-style-type: none">– Over-the-counter deposits at branch• BNY Mellon<ul style="list-style-type: none">– Wire transfers– Incoming ACH credits (with use of Electronic Collection Code “ECC”)– Remote deposit capture• Bank of America Merchant Services• Dunbar
Account Structure	<ul style="list-style-type: none">• PNC Bank – 3 accounts• BNY Mellon – 2 accounts• 3 Merchant IDs
Collections / Incoming Receipts	<p>Checks Deposits</p> <ul style="list-style-type: none">• Collection of mail through 30 P.O. boxes<ul style="list-style-type: none">– Brooks courier brings mail in daily, certified mail collected and brought in internally• All items are processed internally (team of 60 people)<ul style="list-style-type: none">– Items are consolidated into a single deposit (using ICL)– Secure file, uploaded at 11:30 a.m.• International checks are deposited at Citizens Bank <p>Electronic Collection</p> <ul style="list-style-type: none">• Main collection account for the OST<ul style="list-style-type: none">– Incoming ACH, identified through ECC– Allows for automated reconciling (all deposits from various agencies combined)



Department of Finance | Division of Revenue

Collections / Incoming Receipts, (cont.)

- Revenue Delinquent Taxes
 - Program sets up ACH initiated debits against tax payers' bank accounts on a monthly installment plan
- Revenue Internet Filing (individual tax payers)
 - Tax payers are filing online and authorizing DOR to initiate an ACH debit against their bank account
 - File sent during the middle of the day
- Online EDI Processing
 - Business customers
 - Telephone processing

Cash Deposits

- Only one collection site for cash (Carvel State Office Building)
- Occasionally cash is sent in the mail

Other Electronic Collections

- Merchant cards and ACH accepted for payment of cigarette taxes (through Govolution)

Disbursements

- Tax refunds
 - Checks are printed through FSF
 - Two check print files – Revenue and Escheatment Office
 - ACH files are processed through PNC
- Positive pay exceptions
 - Reviewed and decisioned by OST

Merchant Card

- All merchant card transactions processed online through Govolution
 - One of the few agencies that accepts American Express
 - Department of Revenue responsible for paying AmEx invoices
- PCI Compliance (Level III)
 - PCI compliance is a challenge
 - Self-Assessment Questionnaire is burdensome
 - A challenge to troubleshoot problems if there is a failure with a scan (has taken up to a month to resolve issues)
 - Would be helpful to have a State PCI expert to assist



Department of Finance | Division of Revenue

Lockbox	<ul style="list-style-type: none">• BNY Mellon electronic lockbox (eLockbox)<ul style="list-style-type: none">– Division of Revenue transmits file containing taxpayer account information to BNY Mellon daily– BNY Mellon initiates ACH debits to pull funds into the account
Armored Car Services	<ul style="list-style-type: none">• Switched from Garda to Dunbar (as of March 1, 2017)• Daily deposits are picked up from the Carvel State Office Building in Wilmington and transported to a Citizens Bank branch 6 miles away in New Castle
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• Revenue Delinquent Taxes and Revenue Internet Filing accounts are separate to allow for easier reconciling and coding<ul style="list-style-type: none">– A unique identifier is assigned for different payment types (i.e. internet)• Access to PINACLE (PNC)<ul style="list-style-type: none">– 4 employees• Access to Treasury Edge (BONY)<ul style="list-style-type: none">– 9 employees
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none">• Electronic process for research / trace requests in the case of fraud (currently have to fax requests to PNC and call to see who pulled the request)• State PCI expert
Recommendations	<ul style="list-style-type: none">• Given the size of the relationship between the Division of Revenue and BNY Mellon, the OST should coordinate semi-annual reviews with BNY Mellon• Establish a PCI Compliance Officer for the State to coordinate PCI compliance efforts and to serve as a resource for State agencies



Department of Health & Social Services | Division of Child Support Services (DCSS)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none">– Petty cash demand deposit checking– DCSS check disbursements– Disbursements by automated ACH transfer– DCSS check deposits and electronic collection via ACH <p>Citizens Bank</p> <ul style="list-style-type: none">– Over-the-counter deposits at branch <p>FIS</p> <ul style="list-style-type: none">– Stored value card
Account Structure	<p>PNC – 8 accounts</p>
Collections / Incoming Receipts	<ul style="list-style-type: none">• DCSS accepts payments by check (mail, drop box, and courier), credit / debit cards, payment kiosks (TouchPay), and ACH<ul style="list-style-type: none">– Majority of payments are by ACH, approximately 56%• Deposits received by mail are processed in-house using image cash letter (ICL)<ul style="list-style-type: none">– Payment processor is very robust and a majority of checks are processed without operator intervention• TouchPay<ul style="list-style-type: none">– Setup under a memorandum of understanding with the Courts– The payment through Informatix (ACH Debit)– Clients enter bank account and information on website and Informatix creates a NACHA file that is sent to PNC• International checks are transported by a bonded courier to a local branch (approximately 2 to 3 checks per month)<ul style="list-style-type: none">– Canadian dollars, pounds, and others– IT takes time for the checks to be converted
Disbursements	<ul style="list-style-type: none">• Disbursements by check, ACH, and payments to stored value card<ul style="list-style-type: none">– Child support payments and refunds• Check disbursements are higher than they would like<ul style="list-style-type: none">– Beneficiaries are not automatically set up with a stored value card if direct deposit information is not provided



Department of Health & Social Services | Division of Child Support Services (DCSS)

Merchant Card	<ul style="list-style-type: none"> • Credit and debit card payments are accepted through TouchPay kiosks • May start accepting merchant cards online and assess a convenience fee
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none"> • Account is reconciled through an internal program called DECSS (Delaware Child Support System) • Active users in PNC PINACLE enter stop payments and decision positive pay exceptions <ul style="list-style-type: none"> – Currently, items cashed after 90 days from issue date are identified as positive pay exceptions. DCSS has a policy allowing for items to be valid for 100 days. These additional items being identified as exceptions is cumbersome to the Division.
Satisfaction with Banking Services	<ul style="list-style-type: none"> • Dissatisfied with current service offered by FIS for stored value card.
Desired Services by Department	<ul style="list-style-type: none"> • Banking partner to accept and send international ACH • Switch to OST contract with KeyBank for stored value card as FIS has on several occasions not met the needs of DCSS <ul style="list-style-type: none"> – FIS has had several issues with card stock and on several occasions have not been prepared with card stock when cards expired
Recommendations	<ul style="list-style-type: none"> • DCSS should use the State's contact with KeyBank for stored value card • Consider international ACH for incoming and outgoing transactions • DCSS should work with PNC to alter their positive pay exception rules to only flag stale dated items over 100 days as exceptions



Department of Health & Social Services | Division of Long Term Care Residents Protection (DLTCRP)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none"> – Petty cash demand deposit checking <p>Citizens Bank</p> <ul style="list-style-type: none"> – Over-the-counter deposits at branch
Account Structure	PNC – 1 account
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Collects funds associated with facility and professional licenses expenses of Certified Nursing Assistants (CNAs) <ul style="list-style-type: none"> – Group Homes – Assisted Living Facilities – Nursing Homes – Adult Foster Care – Acute Care – Hospitals – CNA relicensing (every 2 years) – Transferring license fees – Civil Money Penalties (CMPs) • Payments made by checks and money order payments • Three locations for collection – Two in New Castle and one in Sussex County
Disbursements	<ul style="list-style-type: none"> • CMPs <ul style="list-style-type: none"> – Facility fines by LTRCP if there is abuse, fraud or mistreatment of residents – CMP funds are deposited into a trust fund on behalf of the care – Require permission prior to authorizing a payment from the account
Merchant Card	None
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	None



Department of Health & Social Services | Division of Long Term Care Residents Protection (DLTCRP)

Satisfaction with Banking Services	Not indicated
Desired Services by Department	<ul style="list-style-type: none">• Reduce daily bank runs through the use of remote deposit capture and having an online payment platform and a merchant ID to collect CNA licensing fees.<ul style="list-style-type: none">– Remote deposit capture for collections at locations in New Castle (2 locations) and Sussex County
Recommendations	<ul style="list-style-type: none">• Consider setting set up remote deposit capture and a merchant ID for collection of licensing fees online



Department of Health & Social Services | Division of Management Services (DMS)

Existing Service Providers	PNC Bank <ul style="list-style-type: none">– Over-the-counter deposits at branch
Account Structure	No separate bank accounts associated with Division of Management and Audit & Recovery Management Services (ARMS)
Collections / Incoming Receipts	<ul style="list-style-type: none">• Receive \$3 million a year to pay claims• All payments are received at the administration office<ul style="list-style-type: none">– Accept merchant cards, checks, and money orders– Check and money orders are deposited daily to PNC• State tax refund intercept program• Treasury direct program (taxes for food benefits)<ul style="list-style-type: none">– Incoming wires from U.S. Treasury
Disbursements	None
Merchant Card	<ul style="list-style-type: none">• Accepts merchant cards over the phone<ul style="list-style-type: none">– Having online payments would be ideal to lower call volume– Four employees receive calls to process daily merchant volume over the phone
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	None
Satisfaction with Banking Services	Not indicated
Desired Services by Department	<ul style="list-style-type: none">• Remote deposit capture to eliminate the need for employees to have to do daily bank runs for check deposits• Online platform for merchant services in place of accepting merchant transactions over the phone
Recommendations	<ul style="list-style-type: none">• Review potential for remote deposit capture• Since DMS is receiving a number of payments initiated by phone, an Interactive Voice Response (IVR) payment platform may be a solution to reduce State resources needed to process these payments



Department of Health & Social Services | Division of Medicaid and Medical Assistance (DMMA)

Existing Service Providers	PNC – Petty cash demand deposit checking M&T Bank DXC (fiscal agent) provider
Account Structure	PNC – 1 account
Collections / Incoming Receipts	None
Disbursements	<ul style="list-style-type: none">• Medicaid claim payments are the primary type of disbursements• Claims processed by DMMA using DEMS (Delaware Medicaid System) and DXC (fiscal agent) makes payment to all claimants / providers (weekly payments)• Wire is sent from BNY Mellon to M&T Bank to reimburse DXC
Merchant Card	None
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• DMMA has access to M&T Bank to pull reports and view bank statements
Satisfaction with Banking Services	Satisfied
Desired Services by Department	None
Recommendations	None



Department of Health & Social Services | Division of Public Health (DPH)

Existing Service Providers	<ul style="list-style-type: none">• BNY Mellon<ul style="list-style-type: none">– Collections by ACH• Citizens Bank<ul style="list-style-type: none">– Over-the-counter deposits at branch• PNC Bank<ul style="list-style-type: none">– Disbursements by ACH
Account Structure	PNC – 1 account
Collections / Incoming Receipts	<ul style="list-style-type: none">• Cash & Checks<ul style="list-style-type: none">– Vital Records collects cash and check in-person at DHSS locations– Food Permits collect cash and checks in-person at DHSS locations; checks are also received by mail– Payments from Managed Care Organizations (MCOs; e.g. Medicare) are received by check by mail– WIC reimbursements (e.g. Nestle Gerber) are received occasionally by check– DPH employees take deposits directly to local branches; they are also taking deposits for other departments to the bank. Other departments fax their deposit tickets to DPH and DPH will include several deposit tickets in deposit bag.• Electronic Receipts<ul style="list-style-type: none">– Public Health receives approximately \$80 million from 90 different grants into the BNY Mellon account– Payments from MCOs are received electronically; occasionally these payments are lumped and mixed with other agency's deposits (e.g. Veterans Affairs)– Court system accepts fees for Office of Animal Welfare and transfers funds to DPH• Merchant cards<ul style="list-style-type: none">– Vital Records accepts merchant cards in-person at DHSS locations using terminals, as well as online through a third-party website, VitalCheck– Food permit payments are collected by merchant card in-person or over the phone



Department of Health & Social Services | Division of Public Health (DPH)

Disbursements	<ul style="list-style-type: none"> • WIC Benefits <ul style="list-style-type: none"> – DPH is disbursing WIC benefits by eWIC cards, administered by FIS and Custom Data Processing (CDP). CDP and FIS determine how much is spent on cards each day and debits PNC account for that amount. As PNC account gets depleted, a payment voucher is issued to transfer funds from the concentration account to the WIC account. – Some benefit cards are pre-funded for fresh fruits and vegetables. – There are approximately 17,000 beneficiaries of the program; however, since several beneficiaries can receive benefits through one card (e.g. mother and children receive benefits on one card), there are not that many cards in use. • Other Disbursements <ul style="list-style-type: none"> – All other disbursements initiated through FSF
Merchant Card	<ul style="list-style-type: none"> • 2 Merchant Accounts – Vital Records and Food Permits • Currently unable to accept merchant cards online
Lockbox	<p>None</p>
Armored Car Services	<p>None</p>
Online Reporting Access / Reconciliation	<ul style="list-style-type: none"> • 4 – 5 employees have PNC PINACLE access only to view balances
Satisfaction with Banking Services	<p>Satisfied</p>
Desired Services by Department	<ul style="list-style-type: none"> • Ability to process restaurant licenses and accept electronic payments, including ACH and merchant card, online.
Recommendations	<ul style="list-style-type: none"> • OST and DTI should reach out to DPH to provide specific guidance on how to establish an online gateway with Govolution.



Department of Health & Social Services | Division of Services for Aging and Adults with Physical Disabilities (DSAAPD)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none"> – Petty cash demand deposit checking <p>Citizens Bank</p> <ul style="list-style-type: none"> – Over-the-counter deposits at branch
Account Structure	PNC – 5 accounts
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Division receives funds from two groups: Long-term Care and Community • Payments made by residents for food and drink from the canteen <ul style="list-style-type: none"> – Payments made by check and cash • Social Security checks <ul style="list-style-type: none"> – Daily deposits at Citizens Bank branch • Funds to provide care through Medicaid and pension disability <ul style="list-style-type: none"> – Most of these payments received by ACH
Disbursements	<ul style="list-style-type: none"> • Challenges with disbursements <ul style="list-style-type: none"> – Many vendors do not understand the advice statement sent from the OST and believe that they were not paid – Vendors have refused to accept ACH and requested that physical checks to be sent
Merchant Card	None
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none"> • Currently, there are challenges when check copies are returned. They are often sent to the wrong person for reconciliation within the Division.
Satisfaction with Banking Services	Not indicated



Department of Health & Social Services | Division of Services for Aging and Adults with Physical Disabilities (DSAAPD)

Desired Services by Department

- Set up electronic payment system for canteens to cut down on cash handling (merchant card acceptance)
- Reduce the need to take checks for deposit to the bank (remote deposit capture) to eliminate potential risk to employees

Recommendations

- Consider setting up remote deposit capture and a merchant card processing so collections can be processed more efficiently
- Consider obtaining online access to check images for reconciliation purposes



Department of Health & Social Services | Division of Social Services (DSS)

Existing Service Providers	PNC Bank <ul style="list-style-type: none"> – Petty cash demand deposit checking Citizens Bank <ul style="list-style-type: none"> – Over-the-counter deposits at branch BNY Mellon <ul style="list-style-type: none"> – Electronic receipts
Account Structure	PNC – 4 accounts
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Minimal check deposits <ul style="list-style-type: none"> – Indigent burial - if a death certificate is requested for an individual receiving an indigent burial, the requestor is charged \$1,500 to reimburse the State – Returned checks from Grant Diversion • Receive electronic deposits (ACH & wires) via BNY Mellon <ul style="list-style-type: none"> – Federal money
Disbursements	<ul style="list-style-type: none"> • Benefit providers are paid through an electronic payments system • Checks for General Assistance <ul style="list-style-type: none"> – Clients without bank accounts that receive benefits by check often go to commercial check cashing operations – These clients may face high fees to cash their benefit checks – Checks are currently cashed at PNC under a contract between DSS and the bank. – In some cases, PNC has required that the benefit recipient show a State Issued Welfare Card and State ID before they will cash the benefit check • \$5.2 to \$6.0 million in checks handled per month <ul style="list-style-type: none"> – 16,500 children serviced by DSS in Delaware • Grant Diversion – TANF Program <ul style="list-style-type: none"> – Families to receive up to \$1,500 to assist with the acquiring or maintaining of employment – All checks issued to the vendors, not the recipients • Limited number of checks printed in-house at the Lewis Building for Grant Division, most are generated through FSF <ul style="list-style-type: none"> – There have been problems reconciling the checks printed in DSS system against FSF
Merchant Card	None



Department of Health & Social Services | Division of Social Services (DSS)

Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	None
Satisfaction with Banking Services	<ul style="list-style-type: none">• DSS indicated that the relationship with PNC could be improved<ul style="list-style-type: none">– PNC has refused to cash state-issued checks drawn on PNC that are presented by beneficiaries unless they present two forms of identification: a Issued Welfare Card and State ID– PNC has returned all the checks drawn on an account when there was an issue with a wire and the account was not funded in a timely manner, instead of contacting DSS first (DSS incurred significant costs by reimbursing beneficiaries for returned check fees)
Desired Services by Department	<ul style="list-style-type: none">• Banking advocate<ul style="list-style-type: none">– DSS has a contract with PNC for check cashing– PNC has often changed the rules for check cashing with little to no notice• PNC is not proactive if there is a file issue• Notice regarding status of payments that are processed through ACH (i.e. if they are received, processed, reconciled)<ul style="list-style-type: none">– DSS typically finds there was an issue and an ACH was not processed when the vendor contacts DSS stating that they have not received payment.
Recommendations	<ul style="list-style-type: none">• Consider the potential to use stored value card in place of benefit checks for unbanked recipients• Regular meeting between OST and bank relationship manager



Department of Health & Social Services | Division of State Service Centers (DSSC)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none"> – Petty cash demand deposit checking <p>Citizens Bank</p> <ul style="list-style-type: none"> – Over-the-counter deposits at branch
Account Structure	PNC – 10 accounts
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Checks received for donations <ul style="list-style-type: none"> – Checks brought to the fiscal office and held in a safe – Receive donations 3 times a week and deposited at Citizens Bank branch
Disbursements	<ul style="list-style-type: none"> • DSSC prints own checks on demand <ul style="list-style-type: none"> – Checks printed for emergency assistance services (TANF) – Two employees print and mail the checks • Issues with PNC Bank <ul style="list-style-type: none"> – DSSC writes a check to K-Mart and K-Mart processes electronically and also brings check to PNC Bank who pays it twice • Will be using State purchasing card program going forward in place of checks
Merchant Card	None
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none"> • Access to PINACLE <ul style="list-style-type: none"> – Used for stop payments and to determine if checks have cleared
Satisfaction with Banking Services	Not indicated
Desired Services by Department	None
Recommendations	<ul style="list-style-type: none"> • Positive pay should be implemented on check disbursement accounts to prevent the same check from being “cleared” multiple times • Consider use of remote deposit capture to process donation checks



Department of Health & Social Services | Division of Substance Abuse and Mental Health (DSAMH)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none"> – Petty cash demand deposit checking <p>Citizens Bank</p> <ul style="list-style-type: none"> – Over-the-counter deposits at branch
Account Structure	PNC – 7 accounts
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Payments received electronically by ACH" <ul style="list-style-type: none"> – Concerns of employees having to go to the bank to deposit any payments received by mail
Disbursements	<ul style="list-style-type: none"> • Distributes funds for the Delaware Psychiatric Center (DPC) and several managed care facilities <ul style="list-style-type: none"> – Most funds are provided by Federal grants and aid, with some state funding • Payments by check and ACH (through FSF) <ul style="list-style-type: none"> – Vendor payments for contracts and operational payments
Merchant Card	None
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	None
Satisfaction with Banking Services	Not indicated
Desired Services by Department	<ul style="list-style-type: none"> • Less wait time at Citizens Bank branch when making deposits
Recommendations	<ul style="list-style-type: none"> • DSAMH may want to consider allowing the branch to post-verify deposits, which will reduce the wait time at branches



Department of Health & Social Services | Division for the Visually Impaired (DVI)

Existing Service Providers	<p>PNC Bank</p> <ul style="list-style-type: none">– Petty cash demand deposit checking– Over-the-counter deposits at branch <p>Citizens Bank</p> <ul style="list-style-type: none">– Over-the-counter deposits at branch
Account Structure	<p>PNC – 5 accounts</p>
Collections / Incoming Receipts	<ul style="list-style-type: none">• Incoming payments by mail<ul style="list-style-type: none">– Checks deposited at both PNC and Citizens Bank branches– PNC Bank: Delaware Industries for the Blind (DIB) payments– Citizens Bank: Payroll reimbursements (Business Enterprise Program)• Merchant card payments over the phone• Receives few cash payments
Disbursements	<ul style="list-style-type: none">• ACH payments<ul style="list-style-type: none">– DIB payroll – data entry into PNC, no NACHA file• Check Payments<ul style="list-style-type: none">– DVI petty cash – hand written checks– Business Enterprise Program Accounts Payables – 5 accounts to hand write checks– DIB Accounts Payables - uses department accounting system to write checks, which is separate from FSF
Merchant Card	<ul style="list-style-type: none">• Acceptance of merchant cards over the phone
Lockbox	<p>None</p>
Armored Car Services	<p>None</p>
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• Access to PINACLE<ul style="list-style-type: none">– 7 employees with access for account reconciliation and ACH payroll approval
Satisfaction with Banking Services	<p>Satisfied</p>
Desired Services by Department	<p>None</p>
Recommendations	<p>None</p>



Department of Insurance

Existing Service Providers	Citizens – Collections by over-the-counter branch deposits Currently implementing remote deposit capture at BNY Mellon
Account Structure	No agency accounts.
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Cash, Checks & Money Orders <ul style="list-style-type: none"> - Cash is received occasionally, only about 3 times per year in small amounts - Checks are received by mail, approximately 1,300 per month. Multiple deposits are created daily for these checks to avoid one issue holding up an entire batch. - These checks are currently deposited at Citizens Bank. In the process of implementing RDC with BNY Mellon. • Electronic Receipts <ul style="list-style-type: none"> - NAIC receives ACH payments for the Insurance Commissioner.
Disbursements	<ul style="list-style-type: none"> • All disbursements are initiated through FSF.
Merchant Card	<ul style="list-style-type: none"> • Not currently accepting merchant cards.
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none"> • 4 employees currently have access to Citizens Bank’s online platform
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none"> • Would like to consider accepting merchant cards for payments from insurance companies. Commissioner’s IT department is interested in setting up a payment platform so insurance companies can view their invoices and pay online.
Recommendations	<ul style="list-style-type: none"> • Because of the high cost of receiving payments by merchant card, the State should consider passing on service on convenience fees if it decides to allow insurance companies to make payment by card. ACH transactions are a much less expensive approach. • Electronic payments can be accepted through Govolution once BAMS implementation is complete.



Department of Labor (DOL)

Divisions Interviewed	Division of Unemployment Insurance
Existing Service Providers	<ul style="list-style-type: none"> • PNC Bank <ul style="list-style-type: none"> - Disbursements by ACH - Collections by lockbox • Citizens Bank <ul style="list-style-type: none"> - Over-the-counter deposits at branch - Collections by remote deposit capture (EZ Deposit) • BNY Mellon <ul style="list-style-type: none"> - Disbursements by outgoing wire transfers • KeyBank <ul style="list-style-type: none"> - Disbursements by stored value card
Account Structure	<p>PNC Bank – 16 accounts Citizens Bank – 1 accounts</p>
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Cash & Check Deposits <ul style="list-style-type: none"> - Cash, Check and Money Orders are received from individuals that were overpaid unemployment benefits. Only the Wilmington location accepts in-person payments (the three other DOL locations do not accept any payments). - Remote deposit capture (EZ Deposit) through Citizens is being used for checks received in Wilmington. - Cash and items unable to be processed through EZ Deposit are deposited by a DOL employee to a local Citizens branch. - Division of Industrial Affairs is also using remote deposit capture through BNY Mellon. • Lockbox Receipts <ul style="list-style-type: none"> - Checks are received at 2 PNC lockboxes for Employer Taxes and Training Tax. • Electronic Receipts <ul style="list-style-type: none"> - ACH payments for Employer Taxes are received online by Govolution. These payments are deposited into Citizens. • Merchant cards <ul style="list-style-type: none"> - Merchant card payments are received online for individuals who have to repay DOL for overpayments.



Department of Labor (DOL)

Disbursements	<ul style="list-style-type: none">• Unemployment Claims<ul style="list-style-type: none">- Benefits are disbursed every day by direct deposit and prepaid debit cards issued by KeyBank.- DOL generates an ACH file that is sent to PNC daily.- DOL receives a daily refresh file from KeyBank with accounts that have been closed. DOL sends daily refresh file to KeyBank with address and name updates.• Child Support<ul style="list-style-type: none">- DOL sends a weekly check to Child Support. This is a lump sum of benefits held from unemployment payments. Details are sent with the check, and Child Support disburses individual payments to beneficiaries.• Overpayments<ul style="list-style-type: none">- DOL occasionally issues OPR (Overpayment) checks and wire transfers to employers who have overpaid their taxes. DOL sends a positive pay file to PNC.
Merchant Card	<ul style="list-style-type: none">• Govolution is the gateway for merchant cards. Merchant cards are accepted online for overpayments of unemployment benefits.
Lockbox	<ul style="list-style-type: none">• 2 Lockboxes: Employer Tax (Unemployment Insurance) and Training Tax<ul style="list-style-type: none">- Both have imaging and archiving.- Employer Tax lockbox uses online decisioning.- No items are physically sent back to DOL.- Items are mailed to a P.O. Box in Moorestown, NJ• Previously had a 3rd lockbox with Bank of America; this lockbox was closed in October 2016.
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• Microsoft Dynamics – used as general ledger and for issuing checks• PNC PINACLE - Less than 6 users• PNC sends DOL an ACH reconciliation file, received in the afternoon.• DOL sends PNC bank reconciliation file with issued checks and cancelled checks.• Bank contacts DOL with exceptions; DOL logs in and fixes exceptions.• Monthly reconciliation file is received from PNC.



Department of Labor (DOL)

Satisfaction with Banking Services	PNC Bank – Very Satisfied Citizens Bank – Very Satisfied
Desired Services by Department	None
Recommendations	None



Department of Natural Resources & Environmental Conservation (DNREC)

Divisions Interviewed	<p>Division of Fish and Wildlife Division of Parks and Recreation Division of Water Division of Air Quality Division of Waste and Hazardous Substances Division of Watershed Stewardship Environmental Finance</p>
Existing Service Providers	<ul style="list-style-type: none">• PNC Bank<ul style="list-style-type: none">– Disbursements by ACH• Citizens Bank<ul style="list-style-type: none">– Over-the-counter deposits at branch– Purchase of coin and currency supplies• BNY Mellon<ul style="list-style-type: none">– Wire transfers– ACH (with use of Electronic Collection Code “ECC”)– Remote deposit capture• Bank of American Merchant Services
Account Structure	<ul style="list-style-type: none">• 5 separate accounts with PNC• 38 merchant IDs<ul style="list-style-type: none">– Division of Fish and Wildlife (4)– Division of Parks and Recreation (28)– DNREC Other (6)
Collections / Incoming Receipts	<p>Checks Deposits</p> <ul style="list-style-type: none">• Environmental Finance<ul style="list-style-type: none">– Check deposits by RDC• Division of Waste<ul style="list-style-type: none">– Employee carrying checks to bank branch• DNREC<ul style="list-style-type: none">– Title V payments– Picked up at Richardson & Robbins (R&R) Building and driven to Citizens Bank branch by DNREC employee



Department of Natural Resources & Environmental Conservation (DNREC)

Collections / Incoming Receipts

Cash Deposits

- Division of Parks and Recreation
 - Cash collected at parks
 - Each park does its own deposits to a local bank branch (approximately 17-18 locations)
 - Issues with theft (theft of onsite safes and cash from self-registration kiosks)
- Division of Fish & Wildlife
 - Cash collected for fishing / hunting licenses
- DNREC
 - Cash deposits at R&R building
 - Cash pickup at 2:00 pm
 - Maximum amount at any time - \$3,000 a day

Cash Needs

- Each division is responsible for making change
- Large amounts of cash are needed at the beginning of the season for the Division of Parks and Recreation (i.e. Killens Pond - \$1,800)
 - There are no petty cash account for parks
 - Currently, an ACH is issued to an employee who then withdraws cash from their bank account.

Electronic Collection

- Division of Fish & Wildlife
 - ACH payments from agencies (i.e. Walmart for fishing or hunting licenses)
 - Incoming grant money (through BNY Mellon)
- Environmental Finance Loans
 - Accept payments on loans for Drinking water (DHSS) and Clean Water (DNREC)
 - Currently don't have the ability to set up repetitive payments
 - Utilize Enable system to manage principal and interest payments
- Division of Air Quality
 - Title V program
 - Yearly billings through DEN (internal billing system)



Department of Natural Resources & Environmental Conservation (DNREC)

Disbursements	<ul style="list-style-type: none">• All payments are made through FSF• Season startup – Division of Parks and Recreation<ul style="list-style-type: none">– Cannot issue a check through FSF without a W-9.– Because of the W-9 challenge, ACH payments are issued to employees who then withdraw cash from their accounts to supply cash to parks. Checks aren't used because PNC charges a check cashing fee.
Merchant Card	<ul style="list-style-type: none">• Division of Parks and Recreation<ul style="list-style-type: none">– Active Reservation System (Point of Sale system)– Division of Parks and Recreation pays for Active based on number of transactions– Merchant card acceptance at most park locations– Currently don't accept Discover Card (issues with EPX)• Division of Fish & Wildlife<ul style="list-style-type: none">– Govolution– 3 locations accepting merchant cards (2 locations using swipe terminals, 1 location using EMV reader)• Division of Water<ul style="list-style-type: none">– Online payments through Govolution (beach permits, classes)• DNREC<ul style="list-style-type: none">– Billing through Govolution– DNREC Billing (Internal point of sale)– Chargebacks are a challenge
Lockbox	None
Armored Car Services	None



Department of Natural Resources & Environmental Conservation (DNREC)

Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• Division of Parks and Recreation<ul style="list-style-type: none">– Use online banking system (PNC PINACLE)– Access to 3 accounts– Reconcile between Active and PNC– Initiated wire transfer from PNC to Citizens Bank (once a week, before 10 a.m.)
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none">• DNREC<ul style="list-style-type: none">– Eliminate the need for employees to take cash and checks to the branch (safety issue)– Better means of managing inflows of cash and save staff time• Division of Parks and Recreation<ul style="list-style-type: none">– Eliminate the need for employees to take cash to the branch (safety issue)– Receive copies of canceled checks (currently if multiple payments are made to the same vendor through check or ACH, these payments are rolled up together in FSF)
Recommendations	<ul style="list-style-type: none">• Use remote deposit capture with desktop scanners or mobile devices to deposit checks• Consider the use of remote cash safes to eliminate the need to take cash to the bank.• Investigate the use of electronic kiosks in lieu of self registration boxes at some parks.



Department of Safety & Homeland Security

Divisions Interviewed	Office of the Secretary (OSEC)
Existing Service Providers	<ul style="list-style-type: none"> • Citizens <ul style="list-style-type: none"> - Over-the-counter deposits at branch • PNC <ul style="list-style-type: none"> - Deposits and disbursements through checking accounts • BNY Mellon <ul style="list-style-type: none"> - Collections by ACH
Account Structure	PNC – 6 accounts
Collections / Incoming Receipts	<ul style="list-style-type: none"> • Cash, Checks & Money Orders <ul style="list-style-type: none"> - State Police receives cash, checks and money orders at various locations. These deposits are taken to Citizens Bank branch. - Office of Alcoholic Beverage Control Commissioner (OABCC) receives payments in person at the Carvel Building. These deposits are taken daily to the Department of Revenue for deposit. During the last week of the fiscal year, OABCC will take deposits directly to the bank. - Restitution checks are received by mail. - Division of Communications receives cash and checks for equipment installations on first responder vehicles. - Some Divisions of DSHS bring deposits to the Office of the Secretary (OSEC). Some are preparing their own deposits, other locations have the OSEC prepare deposits. When OSEC prepares deposit batch, a separate deposit ticket is created for each division. All deposit tickets are coded OSEC but an internal reconciliation is used to apply deposits to correct division. - OSEC employee will take deposits to bank as needed, typically over lunch. Deposits are not made daily. • Electronic Receipts <ul style="list-style-type: none"> - ACHs are received for various reasons throughout department and deposited into BNY Mellon. • merchant cards <ul style="list-style-type: none"> - State Bureau of Identification (SBI) accepts merchant cards in-person at 3 locations for background checks, registering sex offenders, fingerprints, etc. - OABCC accepts merchant cards in-person at 1 location for licensing fees and fines.



Department of Safety & Homeland Security (cont.)

Disbursements	<ul style="list-style-type: none">• PNC Disbursement Accounts<ul style="list-style-type: none">- Delaware Emergency Management Agency (DEMA) has petty cash account to pay vendors in emergency situations.- Division of Alcohol & Tobacco Enforcement (DATE) has pre-adjudicated account to hold evidence, rather than holding cash in a safe. Once case is adjudicated, funds are disbursed based on the court's decision. Funds are always disbursed as a check.- DATE also has small checking account used to disburse cash or checks for undercover buys.- State Police has Crime Reduction Fund (CRF) used to disburse cash or checks for undercover drug buys.- Police Academy has a checking account for petty cash.• All other disbursements are initiated through FSF
Merchant Card	<ul style="list-style-type: none">• 4 Terminals: 3 at SBI, 1 at OABCC
Lockbox	None
Armored Car Services	None
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• DSHS is receiving all statements by mail. No online access is used by department. DSHS calls OST if there are any reconciliation issues or discrepancies.
Satisfaction with Banking Services	Satisfied
Desired Services by Department	None
Recommendations	<ul style="list-style-type: none">• The State Bureau of Identification (SBI) should consider the use of cash safes. They receive the majority of the cash processed by the department.



Department of State | Division of Corporations

Existing Service Providers	<ul style="list-style-type: none">• Citizens Bank<ul style="list-style-type: none">– Over-the-counter deposits at branch• JP Morgan<ul style="list-style-type: none">– Lockbox• Bank of America Merchant Services
Account Structure	<ul style="list-style-type: none">• 1 account with JP Morgan (lockbox)• 2 merchant IDs
Collections / Incoming Receipts	<ul style="list-style-type: none">• Funds are collected by check, cash, merchant card, ACH debit, and lockbox (check and ACH credit)• 1 location for in-person payments<ul style="list-style-type: none">– Deposits (majority are checks) are delivered daily to a Citizens Bank branch located 2 blocks away from the Division of Corporations' office– One deposit ticket for cash and checks in a single bag– Immediate deposit verification at the bank• Checks are dropped off at the Division of Corporations, images of checks are scanned and data is entered into the system• Foreign checks received in the lockbox are forwarded to the Division of Corporations and then deposited with Citizens Bank• Incoming wires from the Federal Government (FBI and IRS)<ul style="list-style-type: none">– Payments to Division of Corporations for work with investigations (5 or so a month)– Money wired into BNY Mellon
Disbursements	<ul style="list-style-type: none">• All disbursements initiated through FSF<ul style="list-style-type: none">– Vendor payments– Refunds• Division of Corporation moves money from JP Morgan to OST using one day ACH



Department of State | Division of Corporations

Merchant Card

- Govolution is the gateway for processing merchant card transactions
- Acceptance of MasterCard, Visa, Discover, and American Express (one of the few agencies that accept American Express)
- Merchant card fees come out of Division of Corporations budget
 - Monthly invoices
 - Would be an issue if fees were taken out on a daily basis
- Acceptance of merchant cards online (E-corp) for balances less than \$15,000
 - Anything over \$15,000 must be paid by e-check (ACH debit)
 - Divisions of Corporations is not assessing a convenience fee on transactions



Department of State | Division of Corporations

Lockbox

- Currently use two lockboxes (Foreign annual reports and domestic annual reports)
- JPMorgan lockbox is in Binghamton, NY
 - Several complaints from citizens and legislators
 - Would like to have a local lockbox, if possible
- Lockbox is used to collect checks and electronic payments (ACH credits, a small percentage of total, 5% or so); merchant card payments are not processed through the lockbox.
- Online decisioning available
 - ACH addenda includes company name and number
 - If there is a problem tracking incoming ACH, addenda data is enriched using the bank's online decisioning system.
 - Division of Corporations will reach out to companies that are in the wrong format
- Occasionally a company will send formation documents to the lockbox
 - Sent back to Divisions of Corporations, daily UPS delivery
 - Occasionally checks are sent back if they include legal filings (5 occurrences a week)
- Remittance documents do not contain scan lines, the bank uses intelligent character recognition (ICR) to "read" the data.
- Next day availability on lockbox deposits at JP Morgan
 - Deposit availability was negotiated as part of the contract.
 - The bank offered to reduce lockbox fees if the State leaves the money on deposit for an extra day
 - 5:00 p.m. cutoff for daily work. The data file is transmitted by 7 pm.
- Foreign annual reports
 - Front and back of reports are imaged
 - Images are archived at Division of Corporations
- Domestic annual reports
 - Images are available online

Armored Car Services

None



Department of State | Division of Corporations

Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• Lockbox files are archived on JP Morgan Access for 10 years (internal requirements)• The Division uses JP Morgan Access to do research on tax payments, when needed.• Division of Corporation is the administrator, 3 people have access to move money, 13 have access to enrich data<ul style="list-style-type: none">– OST has view only access• Division of Corporations reconciles all deposits from the previous day<ul style="list-style-type: none">– Nightly file download, deposits are broken down into different funds– Division of Corporations matches those totals to the totals from their reports.• Direct contact at JP Morgan for the Division of Corporations if there are problems
Satisfaction with Banking Services	Satisfied
Desired Services by Department	<ul style="list-style-type: none">• A local lockbox. When the service was last bid out no Delaware bank proposed.
Recommendations	<ul style="list-style-type: none">• There may not be active monitoring of authorized signers on Division accounts. If not, the State should implement a process for verifying authorized users at least once each year.



Department of Transportation (DeIDOT)

Divisions Interviewed	Delaware Transportation Authority Division of Motor Vehicles
Existing Service Providers	<ul style="list-style-type: none">• Citizens Bank<ul style="list-style-type: none">- Branch operations, cash deposits• BNY Mellon<ul style="list-style-type: none">- Collections by remote deposit capture• M&T Bank<ul style="list-style-type: none">- Cash management bank for revenue collections and check disbursements• Wilmington Trust<ul style="list-style-type: none">- Trust Fund checks- Investment manager for general fund
Account Structure	<p>PNC – 2 accounts M&T Bank – 8 accounts</p> <ul style="list-style-type: none">• On the 15th of the month, money in the revenue accounts is swept into Trust accounts<ul style="list-style-type: none">- Fund debt service accounts, operating accounts (1/12th the budget), DTC (Delaware Transit) accounts (1/12th the budget), and leftover money into the State capital account• All invoices for DeIDOT are paid out of the General Fund<ul style="list-style-type: none">- Reimbursement to the General Fund weekly• Federal expenditures<ul style="list-style-type: none">- DeIDOT is reimbursed for some expenditures by the Federal government, DeIDOT then reimburses the General Fund• State expenditures<ul style="list-style-type: none">- Once a week, General fund reimbursed- Operating account, DTC account, and whatever is leftover from State capital account- At the end of the year, required by law to make the General Fund whole



Department of Transportation (DeIDOT)

Collections / Incoming Receipts

Sources of Revenues

Transportation Services - Motor Fuel Tax Administration (collection by checks and ACH, no cash collection)

- Central mail processing service, mail picked up daily
- Checks are placed in security bag with pre-encoded deposit tickets for M&T Bank
- Deposits brought to main DeIDOT office to be picked up by Dunbar
- Filing data entered into tax system – Fuel Tracer
- Fuel Tracer is an old system and employees have to manually enter information into the system
- Payers have complained about not being able to file information electronically

Vehicle Service Motor Carrier

- IFTA and IRP audits
- Explore financial system
- Online tax returns, some manually keyed entries
- Same process for preparing deposits as motor fuel tax collection

DMV locations (Wilmington, New Castle, Dover, and Georgetown)

- Acceptance of checks, cash, and merchant cards
- Separate deposit tickets for cash and checks
- Use of Motor Vehicle and License System (MVALS) system
- Incoming ACH from Direct Access (payments for purchase of bulk records) and Temp Tag (payments from dealers who print temporary tags online)

Toll Revenues

- TransCore vendor handles revenues (EZ pass collection)

Hauling Permits

- Acceptance of merchant cards and ACH



Department of Transportation (DeIDOT)

Collections / Incoming Receipts – Cont.	<p>Red light program which collects fines for failing to stop at red lights</p> <ul style="list-style-type: none">- Program administered through Xerox- DeIDOT collects a small portion of the assessed fine <p><u>Deposit Methodology</u></p> <ul style="list-style-type: none">• Armored Car vault deposits at M&T Bank• Occasionally, DeIDOT makes deposits to bank branch.<ul style="list-style-type: none">- Wilmington Trust for trust fund checks- Citizens Bank for over-the-counter deposits (very rarely bring cash deposits to the bank)• BNY Mellon used for remote deposit capture of checks
Disbursements	<ul style="list-style-type: none">• OST’s General Fund disburses all funds from its primary disbursement account, including payroll<ul style="list-style-type: none">- Some funds disbursed through M&T accounts for refund checks and occasionally a check is written out of the Trust Account (Capital Account)• Department of Transportation provides instructions to OST to make all payments through FSF• OST reconciles all transaction activity with the bank• DeIDOT reimburses the OST’s General Fund weekly by wire• Purchasing Card Program<ul style="list-style-type: none">- 200 to 300 cards issued- \$40 million in annual spend
Merchant Card	<ul style="list-style-type: none">• Uses State contract• Accept merchant cards at DMV locations<ul style="list-style-type: none">- In-person “swipe” terminals are not EMV enabled.- Accepts merchant cards for payment over the phone• Challenges with PCI compliance<ul style="list-style-type: none">- Questionnaire is difficult and time consuming
Lockbox	None



Department of Transportation (DeIDOT)

Armored Car Services	<ul style="list-style-type: none">• Dunbar – picks up deposits at main DeIDOT location, individual DMV locations, and three toll plazas and deposits at M&T Bank vault.<ul style="list-style-type: none">- Deposits for various locations are kept separate
Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• OST reconciles payments• DeIDOT uses FSF to generate reports• Getting electronic statements for M&T, Trust fund statements are paper• 25 users on accounts
Satisfaction with Banking Services	Very Satisfied (M&T Bank)
Desired Services by Department	<ul style="list-style-type: none">• Upgrade to fuel tax system (Fuel Tracer)<ul style="list-style-type: none">- Automate processes that have to be done manually• Offer more robust online capabilities for customers• Interested in using remote deposit capture or lockbox for processing of check deposits• Training for PCI compliance<ul style="list-style-type: none">- Challenges with the control questions in the PCI compliance questionnaire
Recommendations	<ul style="list-style-type: none">• Evaluate potential for lockbox / additional use of remote deposit for DMV locations• Hire a statewide PCI compliance specialist



Executive Branch: Pension & PHRST

Existing Service Providers	<ul style="list-style-type: none">• PNC Bank<ul style="list-style-type: none">- Disbursements by direct deposit• Citizens Bank<ul style="list-style-type: none">- Over-the-counter deposits at branch• BNY Mellon<ul style="list-style-type: none">- Collections by lockbox
Account Structure	<p>PNC Bank – 6 accounts BNY Mellon – 2 accounts</p>
Collections / Incoming Receipts	<ul style="list-style-type: none">• Cash & Check Deposits<ul style="list-style-type: none">- PHRST receives a small amount of cash, which is deposited into Citizens Bank- Checks are received and processed at the BNY Mellon lockbox



Executive Branch: Pension & PHRST

Disbursements	<ul style="list-style-type: none">• PHRST<ul style="list-style-type: none">- State has approximately 40,000 employees paid by direct deposit; approximately 450 are still paid by check- Direct deposit is approximately \$50 million per pay period; employees are paid on Fridays on a bi-weekly basis- An ACH file is generated and sent to PNC with direct deposit information; system transmits file no later than 4 p.m. Tuesday- Control totals are communicated to PNC on Wednesday- Payroll administers STRIP program used to garnish wages from paychecks; these STRIPs occur and are communicated to the bank on Wednesday. These transactions total \$120,000 to \$150,000 each pay cycle.- One credit union (Del-One Federal Credit Union) makes funds to state employees a day early on Thursday- PHRST issues 60-70 on-demand payroll checks. These are printed by OST and clear against the main concentration account.• Pension<ul style="list-style-type: none">- Pension distributes 28,000 payments per month totaling \$54 million- The number and amount of payments is increasing- Pension benefits are paid on the last business day of the month- It is now mandatory to receive pension benefits by direct deposit, there are 600 recipients that still receive benefits by check- Some checks go to inmates- Approximately 10 people are receiving international checks• Vendor Payments<ul style="list-style-type: none">- All Pension & PHRST disbursements are initiated through OST and FSF- PHRST generates approximately 250 vendor payments through FSF
Merchant Card	Not applicable
Lockbox	<ul style="list-style-type: none">• Pension collects approximately \$1 million per month in healthcare premiums through PNC lockbox• Payments are received by check only
Armored Car Services	Not applicable



Executive Branch: Pension & PHRST

Online Reporting Access / Reconciliation	<ul style="list-style-type: none">• Pension – 2 users on PINACLE (PNC)• Pension – 6 to 8 users on Treasury Edge (BNY Mellon)• PHRST – 4 users on PINACLE (PNC)
Satisfaction with Banking Services	PNC Bank – Very Satisfied BNY Mellon – Very Satisfied
Desired Services by Department	<ul style="list-style-type: none">• Pension<ul style="list-style-type: none">- Assistance with reconciling collection activity• PHRST<ul style="list-style-type: none">- Notification or alert from the bank when payroll files are received and released- Ability to silo information better. PHRST can see DHSS information, including PII, in PINACLE. Would like ability to set up sub-administrators to better manage user access and permissions.
Recommendations	<ul style="list-style-type: none">• Work with PNC to set up administrator rights• Determine if it is possible to conduct the STRIPs process prior to releasing the initial file to PNC Bank (it is generally best practice to minimize / eliminate changes to NACHA formatted files. Further, many banks don't allow customers to modify files.)



Judicial Branch

Divisions Interviewed	Court of Chancery, Court of Common Pleas, Family Court, Justice of the Peace, Administrative Office of the Courts
Existing Service Providers	<ul style="list-style-type: none">• Bank of America Merchant Services<ul style="list-style-type: none">- Collections by merchant card• BNY Mellon<ul style="list-style-type: none">- Collections using ECC “alias account” program (ACH transfers)• Citizens Bank<ul style="list-style-type: none">- Over-the-counter deposits at branch- Purchase of coin & currency supplies (including deposit tickets)• PNC Bank<ul style="list-style-type: none">- Criminal bail accounts - disbursements by checks (controlled disbursement)- Disbursements by ACH- Over-the-counter deposits at branch- Bail, Petty Cash & Escrow accounts• M&T Bank<ul style="list-style-type: none">- Over-the-counter deposits at branch- Bail, Petty Cash & Escrow accounts• WSFS<ul style="list-style-type: none">- ATM operations
Account Structure	<ul style="list-style-type: none">• Citizens Bank – 3 accounts• PNC Bank – 23 accounts• M&T Bank – 5 accounts• 46 Merchant IDs<ul style="list-style-type: none">- Court of Common Pleas – 7- Family Court – 5- Justice of the Peace (JP) – 26- Office of State Court Collections Enforcement (OSCCE) – 8



Judicial Branch

Collections / Incoming Receipts

- **Cash & Check Deposits**
 - Courts prepare deposits each morning and either deliver to the Administrative Office of the Courts (AOC) or take deposits directly to bank branch.
 - Deposits are mixed with cash and check combined with one deposit ticket per bag. (If deposits were separated into separate bags for cash and checks, the Courts would have to use 2 deposit IDs in FSF.) Deposit tickets have identifier by court.
 - All deposits are taken by employee, with police escort, to Citizens Bank. Employee and officer wait until all deposits are counted and return to the AOC or Court (for courts making their own deposits) with deposit tickets.
 - The process is duplicated in each county.
- **Electronic Deposits**
 - Most Courts accept payment by merchant card. Chancery is the exception; only a few of the Chancery Courts accept payment by card.
 - Justice of the Peace is currently absorbing cost of merchant card payments for bail. However, a “tech fee” is charged for online payments. There would have to be statute changes in order to charge a convenience fee.
 - All fees are currently being paid by OST.
 - No merchant card payments are accepted by mail by any of the courts.
 - Justice of the Peace accepts e-checks online.
 - The Superior Court accepts payments by ACH and wire.
- **Kiosks**
 - 6 located throughout the State for courts, corrections and child support collections.
 - Accepts cash and merchant cards
 - Adding 3 more at the 24-hour JP courts
 - Contract is with TouchPay GTL. They maintain kiosks and take cash out.
 - Merchant card payments are processed through EPX. These are real-time payments.
 - Cash is deposited into TouchPay account and then transferred to OST by ACH.
 - Payer is charged a fee for use which goes directly to TouchPay to cover costs.
 - These payments interface with DELJIS.

Disbursements

- The majority of disbursements are made through FSF.
- Checks written on bail accounts at M&T are not made through FSF.



Judicial Branch

Merchant Card	<ul style="list-style-type: none">• One e-Payment site (through Delaware Justice Information System, DELJIS) is used for all online collections for the courts.• Govolution is used for all payment types but can't process PIN transactions. Can turn on/off international payment processing, which is important to AOC.• Court clerks are hand entering card info. Waiting for BAMS to be implemented before ordering new terminals to ensure they're compatible. Justice of the Peace is getting Ingenico merchant terminals for each location to swipe cards.• Each court is responsible for inventorying their own machines.• Court of Common Pleas has IVR system.• There is concern about fraud as many of the people paying with merchant cards are criminals. It's not uncommon for them to use someone else's card to pay their fines.• There is a large population in Sussex County that doesn't have merchant cards.• PCI Compliance<ul style="list-style-type: none">- AOC Collections Administrator is currently responsible for PCI compliance. This includes completing questionnaire and a quarterly scan. Certificates are on file.
Lockbox	None
Armored Car Services	None. Used nine years ago but had problems reconciling. Checks were taken to one location and cash was taken to another. The current process now of using police escorts is working well.
Online Reporting Access / Reconciliation	Each court system is responsible for reconciling their deposits.
Satisfaction with Banking Services	Satisfied
Recommendations	Implement RDC for each County Court system Create FSF account structure to track bail money that moves between court systems or counties.



Judicial Branch

Desired Services by Department

- Administrative Office of the Courts
 - RDC
 - Cash Transportation
 - Courtwide IVR
 - ATM Machines
- Justice of the Peace
 - Have one account for bail to be able to easily transfer money between court systems and Counties. Currently the different court systems are cutting checks to each other if a case moves to another court/County. Use FSF or internal accounting system to track movement of funds and balances.
- Use prepaid debit cards for restitution. Courts are currently paying out as little as \$0.01 by check; this is a very expensive process. Could be used for other payments too.

Recommendations

Implement RDC for each County Court system
Create FSF account structure to track bail money that moves between court systems or counties.



Glossary of Terms & Acronyms



Glossary of Terms and Acronyms

ACH – Automated Clearing House

AOC - Administrative Office of the Courts

BAI - file format for performing electronic cash management balance reporting. The BAI format was developed and previously maintained by the Bank Administration Institute (BAI).

BAMS – Bank of America Merchant Services

Basel III - comprehensive set of reform measures, developed by the Basel Committee on Banking Supervision, to strengthen the regulation, supervision and risk management of the banking sector. These measures aim to: improve the banking sector's ability to absorb shocks arising from financial and economic stress, whatever the source, improve risk management and governance, and strengthen banks' transparency and disclosures.

CAFR – Comprehensive Annual Financial Report

CMP – Civil Money Penalties

CVV – Card Verification Value, an anti-fraud security feature to help verify that you are in possession of your credit card. For Visa/MasterCard, the three-digit CVV number is printed on the signature panel on the back of the card immediately after the card's account number.

DCSS – Division of Child Support Services

DDA – Demand Deposit Account

DeIDOT – Department of Transportation



Glossary of Terms and Acronyms (cont.)

DELJIS – Delaware Criminal Justice Information System

DEMA – Delaware Emergency Management Agency

DHSS – Department of Health and Social Services

DIB – Delaware Industries for the Blind

DLTCRP – Division of Long Term Care Residents Protection

DMMA – Division of Medicaid and Medical Assistance

DMS – Division of Management Services

DMV – Department of Motor Vehicles

DNREC – Department of Natural Resources and Environmental Conservation

DOC – Department of Corrections

Dodd Frank Act – The Dodd-Frank Wall Street Reform and Consumer Protection Act is a massive piece of financial reform legislation passed by the Obama administration in 2010 as a response to the financial crisis of 2008. The act established a number of new government agencies tasked with overseeing various components of the act and by extension various aspects of the banking system.

DOL – Department of Labor

DPH – Division of Public Health

DSAAPD – Division of Services for Aging and Adults with Physical Disabilities

DSAMH – Division of Substance Abuse and Mental Health



Glossary of Terms and Acronyms (cont.)

DSS – Division of Social Services

DSSC – Division of State Service Centers

DTI – Division of Technology and Information

DVI – Division for the Visually Impaired

ECC – Electronic Collection Code

ECR – Earnings Credit Rate

EDI – Electronic Data Interchange

EFT – Electronic Fund Transfer

EIN – Employer Identification Number

EMV – Europay, MasterCard, and Visa -- is a global standard for cards equipped with computer chips and the technology used to authenticate chip-card transactions.

EPX – Electronic Payment Exchange

FDIC – Federal Deposit Insurance Corporation

FHLB – Federal Home Loan Bank

FSF – First State Financials



Glossary of Terms and Acronyms (cont.)

Govolution (aka Velocity) – statewide payment gateway

IAT – International ACH Transaction

ICL – Image Cash Letter

ICR – Intelligent Character Recognition

IFTA – International Fuel Tax Agreement

Ingenico – smart terminal, card reader, and payment solution

IRD – Image Replacement Document

IVR – Interactive Voice Response

JP – Justice of the Peace

JP Morgan Access – global cash management solution that integrates the services you need to manage cash balances, daily transactions and information instantly. Connect online, host-to-host, mobile or through your spreadsheet. All channels are supported by J.P. Morgan's multi-level security protocol.

LOC – Letter of Credit

MCO – Managed Care Organizations

NACHA – National Automated Clearing House Association



Glossary of Terms and Acronyms (cont.)

NAIC – National Association of Insurance Commissioners (reference under Department of Insurance)

NSF – Non-Sufficient Funds

OABCC – Office of Alcohol Beverage Control Commissioner

OTC – Over the Counter

OSCCE – Office of State Court Collections Enforcement

OSEC – Office of the Secretary

OST – Office of the State Treasurer

Payee positive pay – is a cash management system used by a number of banks to help reduce incidents of check fraud. The system enables the bank to review various aspects of a check presented for payment and compare them against a supplied list of checks issued.

PCI – Payment Card Industry

PHRST – State of Delaware's central payroll operations group for all state agencies, school districts, and charter schools. PHRST system is an integrated software application and is the Human Capital Management (HCM) component of the State of Delaware's Enterprise Resource Planning (ERP) system.

PII – Personally Identifiable Information

PINACLE – PNC's online and mobile banking portal

Positive pay – a cash-management service employed to deter check fraud. Banks use positive pay to match the checks a company issues with those it presents for payment. Any check considered to be potentially fraudulent is sent back to the issuer for examination.



Glossary of Terms and Acronyms (cont.)

RDC – Remote Deposit Capture

RFP – Request for Proposal

SAQ – Self Assessment Questionnaire

SBI – State Bureau of Identification

SFTP – Secure File Transfer Protocol

STRIP program – State Tax Refund Intercept Program

SUA – Single Use Account

TANF – Temporary Assistance for Needy Families

Treasury Edge – BNY Mellon's mobile technology

UPIC – Universal Payment Identification Code

WIC – Women, Infants, and Children

ZBA – Zero Balance Account



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