



Department of Public Safety and Minnesota IT Services

MNLARS Quarterly Report Verification Title Backlogs and System Funding

April 2019

Financial Audit Division

OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA

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STATE OF MINNESOTA • James Nobles, Legislative Auditor

April 3, 2019

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This report assessed selected technical aspects of the Minnesota Licensing and Registration System (MNLARS), as required by *Laws of Minnesota* 2018, Chapter 101. Specific areas in this audit included title backlogs, system funding needs, and system outages and slowdowns.

The objective of this audit was to assess the accuracy and completeness of information reported to the Legislature by the Department of Public Safety and Minnesota IT Services in the *MNLARS Quarterly Update* reports and in system funding requests.

This audit was conducted by Mark Mathison, IT Audit Director, and Joe Sass, IT Audit Coordinator.

We received cooperation from the Department of Public Safety and Minnesota IT Services staff while performing this audit.

Sincerely,

James R. Nobles
Legislative Auditor

Christopher P. Buse
Deputy Legislative Auditor



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Report Summary

The Office of the Legislative Auditor (OLA) has completed its second quarterly information technology audit of the Minnesota Licensing and Registration System (MNLARS), as required by *Laws of Minnesota* 2018, Chapter 101.¹

The scope of this audit included an assessment of select performance measures reported by the Department of Public Safety (DPS) and Minnesota IT Services (MNIT) in their *MNLARS Quarterly Update* reports. Specifically, OLA reviewed performance measure four, *Reduction in the Backlog of Vehicle Titles*, and performance measure six, *System Performance Including Slowdowns, Outages, or Other Performance Issues*. OLA also examined the funding model for the continued development, operations, and maintenance of MNLARS.

Conclusion

For the performance measures in our audit scope, DPS and MNIT generally complied with the requirements in *Laws of Minnesota* 2018, Chapter 101.

Legal Compliance



This audit identified internal control weaknesses that impacted the quality and usefulness of the title backlog information in the *MNLARS Quarterly Update* reports. OLA also identified deficiencies in the long-term budgeting processes for MNLARS.

Internal Controls



¹ In this report, OLA uses the term MNLARS to refer to the state of Minnesota's comprehensive information system and its subsystem components used to provide driver and motor vehicle licensing and registration services to Minnesota citizens.

Findings

Finding 1. DPS does not have processing time standards for each of its vehicle title types.

Finding 2. DPS uses imprecise methods to develop some information in the *MNLARS Quarterly Update* reports.

Finding 3. Continued reliance on centralized document scanning and mail services adds time to the title processing workflow.

Finding 4. Barcode data entry errors are resulting in backlogged titles.

Finding 5. MNLARS lacks functionality to effectively manage the unmatched document inventory.

Finding 6. DPS has not been able to keep the title backlog from growing with its current staffing level.

Finding 7. DPS does not include unprocessed titles with deficiencies in the *MNLARS Quarterly Update* reports.

Finding 8. MNIT payroll costs are not properly split between the MNLARS project and operational budgets.

Finding 9. DPS and MNIT do not have a long-range funding model for MNLARS.

Audit Overview

This report is the second by the Office of the Legislative Auditor (OLA) in response to a 2018 law that requires OLA to assess technical aspects of the Minnesota Licensing and Registration System (MNLARS).²

The law requires OLA to provide:

- A technical assessment of MNLARS.
- An assessment of the feasibility of the MNLARS project roadmaps and timelines.
- An assessment of estimated funding needs for the continued development, operations, and maintenance of MNLARS.
- An assessment of process changes and business workflows for auto dealers and deputy registrars.

Additionally, the law requires OLA to report on whether or not the commissioner of the Department of Public Safety and the state chief information officer are:

- Meeting predefined deadlines and performance measures.
- In compliance with specific plans required under the law.

This audit included an assessment of select performance measures reported by the Department of Public Safety (DPS) and Minnesota IT Services (MNIT) in their *MNLARS Quarterly Update* reports. OLA focused its efforts on performance measure four, *Reduction in the Backlog of Vehicle Titles*. However, OLA also conducted follow-up work on performance measure six, *System Performance Including Slowdowns, Outages, or Other Performance Issues*. Performance measure six was the primary focus of our previous MNLARS information technology audit, released in November 2018.

To help the Legislature address pressing funding questions, OLA also examined the budgets to both finish the MNLARS project and fund the ongoing operation of the system. As part of this work, OLA compared system budgets to available resources in an effort to validate the accuracy of the funding deficiency reported to the Legislature by DPS and MNIT.

² *Laws of Minnesota* 2018, Chapter 101.

MNLARS Overview and Project History

DPS is responsible for MNLARS. DPS relies on MNLARS to process, transmit, and store driver and vehicle services transactions. In Fiscal Year 2018, MNLARS helped the agency collect more than \$1.6 billion in driver- and vehicle-related taxes and fees. MNIT provides technical support for the system.

Beyond DPS, many entities and individuals rely on MNLARS. Minnesota has 174 deputy registrar offices and 127 driver's license agents that use MNLARS to provide motor vehicle registration and licensing services. Auto dealers also interact with MNLARS to list new vehicles held for resale and to transfer ownership of vehicles. Finally, law enforcement officials use the system to obtain information about drivers and vehicles in Minnesota.

MNLARS began as a multi-year project in 2008 to replace the state's aging mainframe license and registration systems. In 2009, DPS hired a contractor, Mathtech, Inc., to gather business and technical requirements. In 2012, DPS contracted with Hewlett-Packard to develop the new system. In 2014, due to vendor performance concerns, DPS ended its contract with Hewlett-Packard and brought the development in-house, partnering with MNIT and various subcontractors to finish the system.

In July 2017, the agencies launched the motor vehicle components of MNLARS. With this launch, DPS and MNIT encountered a variety of highly publicized business and technical problems, leading to widespread frustration. Recognizing that it was no longer practical to continue internal development of the driver's license components of MNLARS, in November 2017, DPS and MNIT contracted with Fast Enterprises, LLC, to provide software and services to replace the state's outdated driver's license system. DPS, MNIT, and their vendor implemented the new driver's license components of MNLARS on October 1, 2018.

In response to the MNLARS problems, the 2018 Legislature created a special oversight committee, called the MNLARS Steering Committee. The 2018 legislation requires DPS and MNIT to provide quarterly progress reports to the committee. The legislation also requires OLA to audit the information in those reports, along with other technical oversight duties.³

³ *Laws of Minnesota* 2018, Chapter 101.

Audit Scope, Objectives, Methodology, and Criteria

Vehicle Title Backlog

This part of the audit focused on performance measure four in the *MNLARS Quarterly Update* reports, which includes metrics on the vehicle title backlog. OLA designed its work to address the following questions:

- Did DPS and MNIT accurately report the backlog of vehicle titles?
- Was DPS successful in reducing the backlog of vehicle titles?

To answer these questions, OLA interviewed staff from DPS, MNIT, and the Continuous Improvement Office at the Minnesota Department of Administration to gain an understanding of the vehicle title issuance process. We also tested a sample of 20 transactions in the vehicle title work queue, occurring between the initial MNLARS launch and August 31, 2018. Finally, OLA examined MNLARS data from the system launch date through December 2018 to independently validate information in the *MNLARS Quarterly Update* reports.

MNLARS Funding Needs

This part of the audit assessed the funding needs for completion of the MNLARS project and the ongoing operation of the system. OLA designed its work to address the following questions:

- Did DPS and MNIT develop an accurate budget for the work remaining to complete the MNLARS project?
- Did DPS and MNIT develop an accurate and complete long-term budget for the ongoing operations and maintenance of MNLARS?

To answer these questions, we requested detailed budgetary data from DPS and MNIT. We assessed the accuracy and completeness of this data by tracing costs to underlying hardware and software contracts. We also compared budgeted costs for personnel and contractors to outstanding tasks in the project work plan. And finally, we assessed the overall technology environment for MNLARS to identify potential costs that may be missing from the project budget and the long-term cost plan.

MNLARS System Outages and Slowdowns

This part of the audit focused on performance measure six in the *MNLARS Quarterly Update* report, titled *System Performance Including Slowdowns, Outages or Other Performance Issues*. For this performance measure, OLA limited its scope

to metrics reported by DPS and MNIT in the December 2018 *MNLARS Quarterly Update* report. OLA designed its work to address the following question:

- Did DPS and MNIT accurately and completely report all outages, slowdowns, and system performance issues?

To answer this question, OLA interviewed staff at DPS and MNIT to gain an understanding of operational processes and measurement procedures. OLA also tested data in the December 2018 *MNLARS Quarterly Update* report, recomputing reported metrics and comparing data to service desk outage records and other stakeholder communications.

OLA conducted this audit in accordance with generally accepted government auditing standards.⁴ Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We assessed internal controls against the most recent edition of the internal control standards, published by the U.S. Government Accountability Office.⁵ To identify legal compliance criteria for the activity we reviewed, we examined state and federal laws, state administrative rules, state contracts, and policies and procedures established by the departments of Management and Budget and Administration, the Department of Public Safety, and Minnesota IT Services. *Laws of Minnesota* 2018, Chapter 101, directed OLA to do this work and provided several legal compliance requirements to test.

Conclusions

Legal Compliance

DPS and MNIT generally complied with the applicable legal requirements in *Laws of Minnesota* 2018, Chapter 101. Specifically, the agencies accurately reported the metrics in the *MNLARS Quarterly Update* reports that we tested, in all material respects. The agencies also were successful in reducing the vehicle title backlog. However, OLA found the following issues of noncompliance, discussed more thoroughly in the findings and recommendations in this report.

⁴ U.S. Government Accountability Office, *Government Auditing Standards*, December 2011.

⁵ Comptroller General of the United States, Government Accountability Office, *Standards for Internal Control in the Federal Government* (Washington DC, September 2014). In September 2014, the state of Minnesota adopted these standards as its internal control framework for the executive branch.

- Finding 7. DPS does not include unprocessed titles with deficiencies in the *MNLARS Quarterly Update* reports.

Internal Controls

OLA found that internal controls over the areas in our audit scope were generally inadequate. OLA identified the following issues that impacted the ability to accurately measure, manage, and report on the vehicle title backlog.

- Finding 1. DPS does not have processing time standards for each of its vehicle title types.
- Finding 2. DPS uses imprecise methods to develop some information in the *MNLARS Quarterly Update* reports.
- Finding 4. Barcode data entry errors are resulting in backlogged titles.
- Finding 5. MNLARS lacks functionality to effectively manage the unmatched document inventory.
- Finding 6. DPS has not been able to keep the title backlog from growing with its current staffing level.
- Finding 7. DPS does not include unprocessed titles with deficiencies in the *MNLARS Quarterly Update* reports.

OLA also identified the following issues that impacted the ability to plan for the fiscal needs of the MNLARS project and the ongoing operation of the system.

- Finding 8. MNIT payroll costs are not properly split between the MNLARS project and operational budgets.
- Finding 9. DPS and MNIT do not have a long-range funding model for MNLARS.

Workflow and Process Improvements

Laws of Minnesota 2018, Chapter 101, requires OLA to assess process changes and business workflows to improve MNLARS. Finding 3 discusses a potential business process and workflow change that could reduce the amount of time that it takes to process vehicle titles in Minnesota.

- Finding 3. Continued reliance on centralized document scanning and mail services adds time to the title processing workflow.



Vehicle Title Backlog

Performance measure four in the *MNLARS Quarterly Update* reports contains statistics on the vehicle title backlog. In this section, DPS and MNIT report the total number of titles in the work queue at the beginning of each month, which ranged from a high of 380,000 in December 2017 to a low of 96,000 in September 2018. The agencies also reported the length of time that it takes to process titles.

The term “backlog” implies that there is a standard amount of time to process each title, and some portion of the titles do not meet that standard. However, OLA could not find information on the DPS website or in stakeholder literature that



The term “**vehicle title backlog**” has been used to describe all of the title applications in the MNLARS work queue at any given point in time. In this report, OLA uses the term **backlog** to describe the portion of the titles in the work queue that were not timely processed.

communicates processing time standards for each type of title. In fact, the only reference to a processing time standard that we found was in the agency’s biennial budget request. Without the ability to compare “what is” to “what should be,” it is difficult for readers of the *MNLARS Quarterly Update* reports to draw meaningful conclusions.

FINDING 1

DPS does not have processing time standards for each of its vehicle title types.

For each of the three vehicle title types, DPS and MNIT report average processing time metrics in the *MNLARS Quarterly Update* reports. However, the reports do not include corresponding processing time standards. It is helpful to see the average amount of time that it takes to process each type of title, as well as the trends over time. However, absent clear timeliness standards, readers of the reports cannot gauge whether the actual results are meeting, exceeding, or falling short of expectations. Readers also cannot see the actual size of the title backlog.

The only title processing time metric that OLA found was in DPS’s biennial budget reports. In these reports, DPS lists the *percentage of titles issued within 30 days* as a key performance indicator. OLA encourages DPS to work with stakeholders to define unique processing time standards for each title type. Distinct metrics reflect that processing complexity for each title type varies, and stakeholders may have different turnaround time needs.

RECOMMENDATIONS

DPS should work with its stakeholders to define turnaround time standards for each vehicle title type.

In its *MNLARS Quarterly Update* reports, DPS and MNIT should show actual title processing times in relation to established timeliness standards.

In its *MNLARS Quarterly Update* reports, DPS and MNIT should highlight the portion of the unprocessed title work queue that is backlogged.

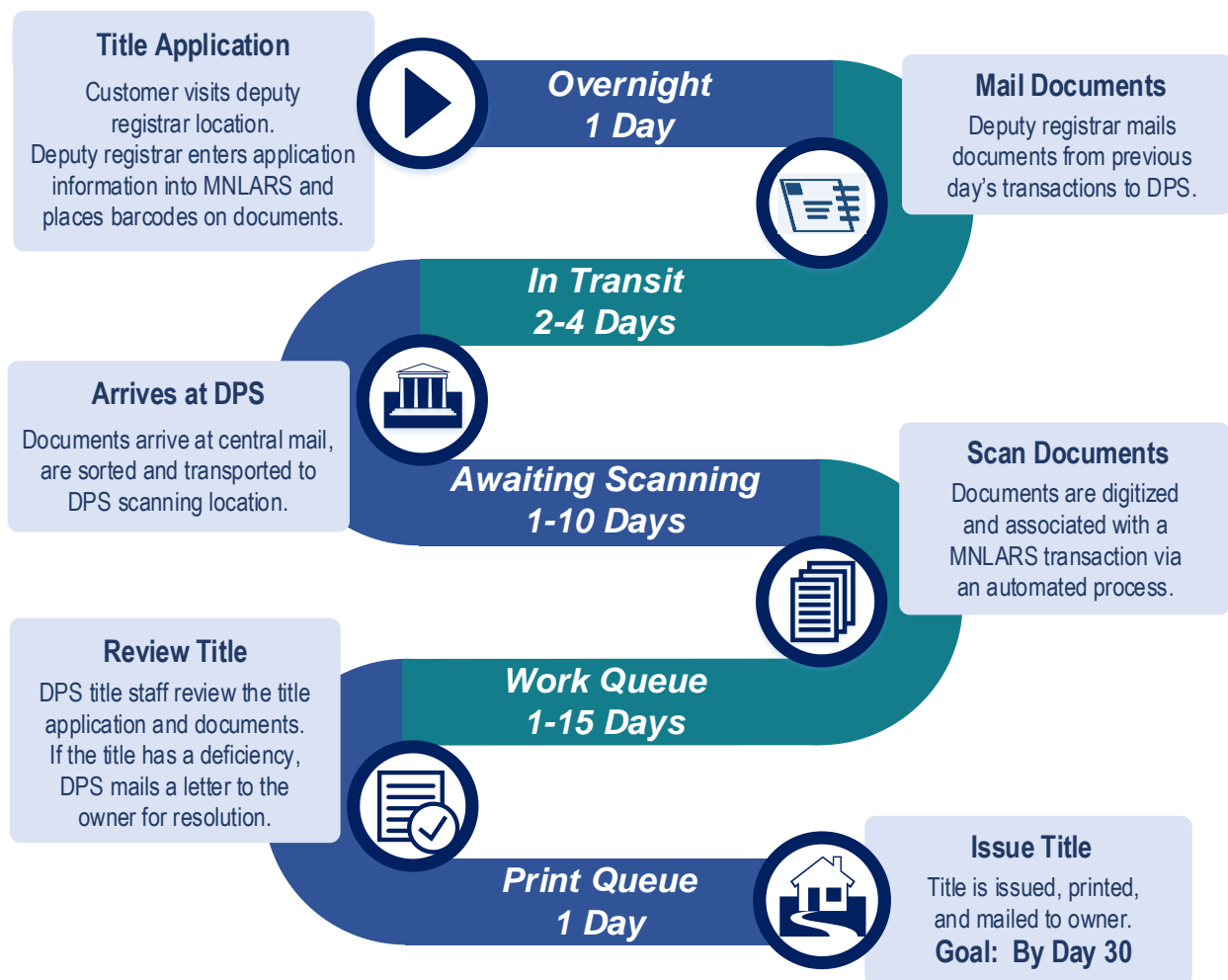
The Title Process

The vehicle title process typically begins at one of the 174 deputy registrar locations. After a customer presents the necessary documentation, deputy registrar staff enter the title application in MNLARS. Deputy registrar staff place a unique barcode identifier on each document, providing MNLARS with a way to associate documents with information in the computer system. After collecting required payments, deputy registrars submit title applications for processing in the system.

To complete processing, deputy registrars package the documents associated with each title transaction and send them to the DPS Driver and Vehicle Services Division in St. Paul. Upon arrival in St. Paul, DPS staff scan the documents into MNLARS, where an automated process matches the document barcodes to identifiers already in the computer system. DPS staff can then finalize processing, allowing titles to be printed and mailed to customers.

Exhibit 1 illustrates the vehicle title processing workflow, along with the estimated amount of time to complete each step.

Exhibit 1: Vehicle Title Processing Workflow



SOURCE: Office of the Legislative Auditor.

Title Work Queue

DPS uses the term “work queue” to describe the inventory of unprocessed title applications, rather than the term “backlog.” The work queue continuously changes, as deputy registrars enter new title applications, and previous applications are processed by DPS.

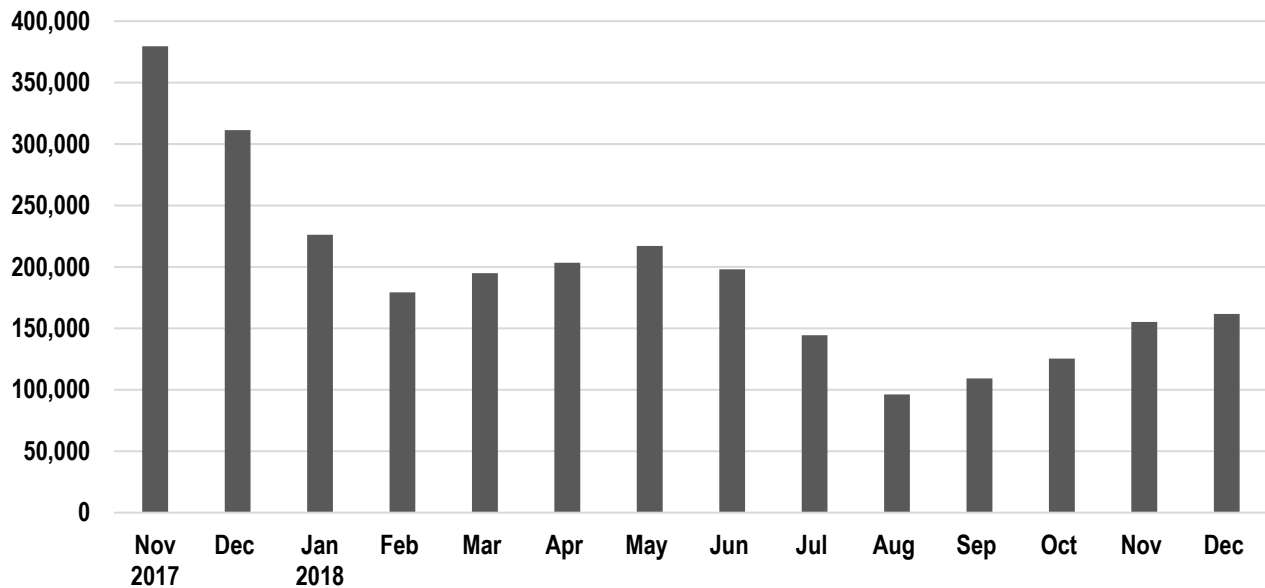
The work queue hit a low point in August 2018 of approximately 96,000 unprocessed titles. However, the queue increased throughout the last quarter of calendar year 2018 to approximately 162,000 unprocessed titles at the year-end. Exhibit 2 shows the fluctuation of the unprocessed vehicle title work queue over the past 14 months.

The size of the unprocessed title work queue decreased by

48%

in calendar year 2018.

Exhibit 2: Unprocessed Vehicle Title Work Queue (November 2017 through December 2018)



SOURCE: Office of the Legislative Auditor, counts as of last day of month.

Backlogged Titles

It is important to recognize that there will always be unprocessed titles in the work queue. What is significant is the portion of those titles that DPS is not timely processing. In its biennial budget request, DPS outlined a 30-day target for processing titles. To assess the extent of the timeliness problem, OLA conducted a detailed analysis of the 162,000 unprocessed titles in the work queue on December 31, 2018. We found that approximately 43 percent of those titles were in the queue more than 30 days and, therefore, could be classified as “backlogged.” Some of these backlogged titles have been sitting in the unprocessed title queue since the MNLARS launch in July 2017.

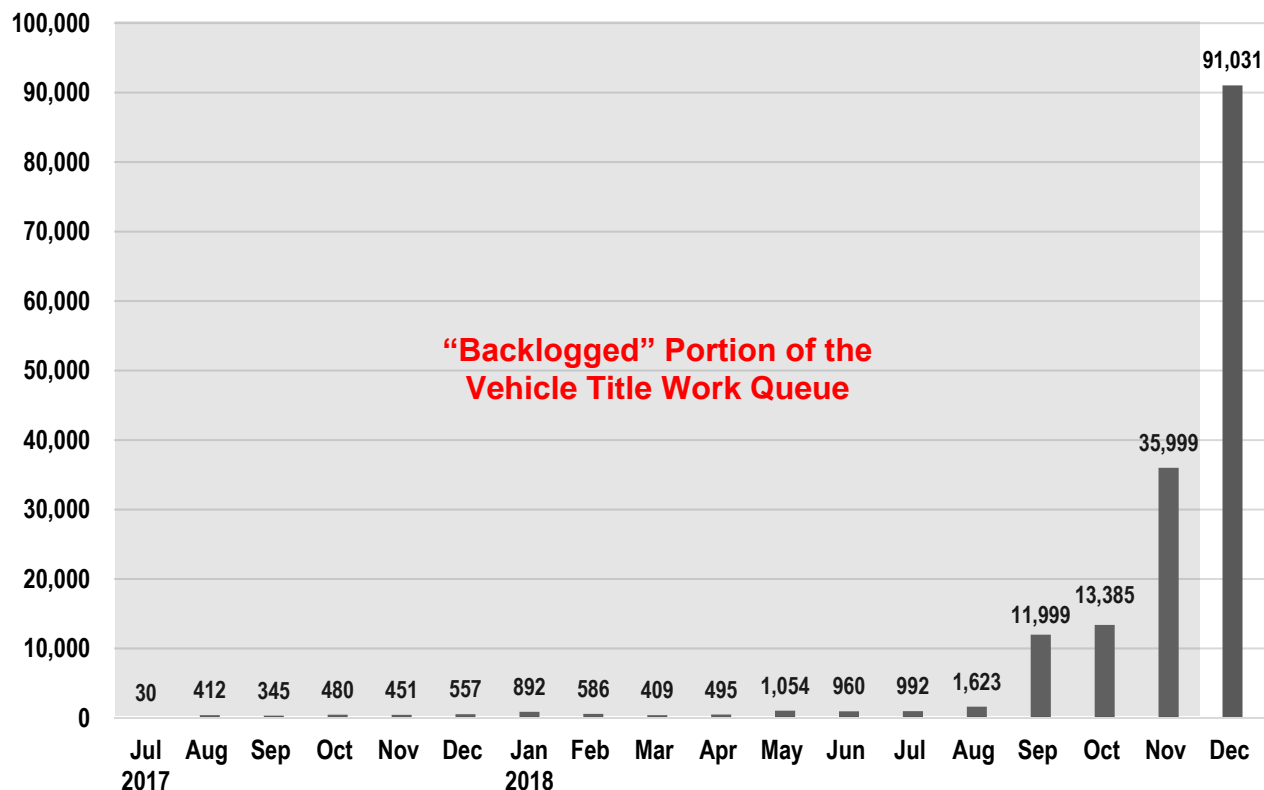
Backlogged titles
represented

43%

of the titles in the 2018
year-end unprocessed
title queue.

Exhibit 3 provides an aging analysis of the December 31, 2018, title work queue. The exhibit breaks down the title population by the month when the transactions first entered the queue. Since the exhibit used month-end data, OLA assumed that all transactions entering the queue during the month of December 2018 were timely. OLA classified transactions entering the queue in November 2018 or earlier as backlogged because they were more than 30 days old. A small percentage of titles in the work queue relate to titles with deficiencies, discussed later in Finding 7.

Exhibit 3: Vehicle Title Work Queue Aging Analysis (December 31, 2018)



SOURCE: Office of the Legislative Auditor.

MNLARS provides DPS with tools and data to generate performance metrics, such as the amount of time that it takes to process title transactions. However, DPS did not harness these capabilities to develop key metrics for the *MNLARS Quarterly Update* reports. For example, the chart showing the average amount of time to process titles comes from a manual process that was in place well before the July 2017 system launch.

FINDING 2

DPS uses imprecise methods to develop some information in the *MNLARS Quarterly Update* reports.

DPS compiles its title turnaround time metrics using a manual process that originated prior to the launch of MNLARS. DPS created this process to provide deputy registrars with rough turnaround time estimates for title processing. While sufficient for its original purpose, this process lacks precision and does not include all factors that impact processing time.

MNLARS is a new business system with better data analytic capabilities. The system has data to produce actual processing statistics, eliminating the need to publish estimates. OLA ran its own title turnaround time queries from MNLARS. Though our results did not match the metrics published by DPS, the title processing trends in the legislative reports were reasonably accurate.

Harnessing business intelligence capabilities in MNLARS will help DPS produce more precise information for readers of the *MNLARS Quarterly Update* reports. Better use of business intelligence will help DPS gain a deeper understanding of the factors that contribute to backlog problems, such as unmatched documents and titles with deficiencies.

RECOMMENDATION

DPS and MNIT should use MNLARS data to develop more precise metrics for the *MNLARS Quarterly Update* reports.

Factors Contributing to Backlogged Titles

OLA did extensive analysis of MNLARS data to understand why there are so many backlogged titles. MNLARS technical issues are part of the problem. However, business process and staffing decisions also contribute to the length of time that it takes to process titles, as the following sections and findings discuss.

Contributing Factor: Centralized Document Scanning

DPS scans all title documents at its headquarters in St. Paul. As discussed in Finding 3, this business decision adds several days to the title processing workflow because documents must be transported by mail, rather than transmitted electronically. This decision also pushed some error detection and correction processes to a point that is later in the title processing workflow, when it may be more difficult to remedy the errors.

FINDING 3

Continued reliance on centralized document scanning and mail services adds time to the title processing workflow.

During the MNLARS project, DPS leaders decided to continue a longstanding practice of scanning all title documents centrally at the department's headquarters in St. Paul. As a result, a significant portion of the time that it now takes to generate vehicle titles is due to mail-handling functions. This business process decision also makes it more difficult to identify some transaction errors at the point when those

errors occur and are easier to correct. And finally, centralized scanning forced DPS and MNIT to develop a barcode process to associate digitized images to their original title transactions. As discussed in Finding 4 and Finding 5, unmatched documents are now a significant contributing factor to the title backlog problem.

The MNLARS project provided an opportunity to reengineer outdated business processes with ones that more effectively leverage technology. When questioned, DPS staff told us that they considered scanning documents at deputy registrar locations. However, they pulled the concept from consideration due to concerns about deputy registrar workloads, quality of scanned images, and the security of data. They also cited the additional cost of equipment and further delays to the MNLARS project.

OLA questions the decision to not reengineer the business process to harness electronic document transfer capabilities, particularly for large deputy registrars. A hybrid model would allow high-volume deputy registrars to scan documents on premise, reducing overall transaction processing times and providing better error correction capabilities. Low-volume deputy registrars could continue the traditional approach of sending documents to DPS headquarters for scanning and processing.

OLA acknowledges that a hybrid model would increase the workload for high-volume deputy registrars. However, if faster title turnaround time is the goal, we encourage DPS and MNIT to study the merits of shifting more work to deputy registrars and compensating them accordingly.

RECOMMENDATION

DPS should engage with stakeholders and reassess the decision to scan all documents centrally at DPS headquarters in St. Paul.

Contributing Factor: Barcode Errors and Unmatched Documents

As DPS digitizes documents, MNLARS uses the affixed barcodes to associate each document with the title transaction that occurred earlier at a deputy registrar's office. In most cases, it takes 10 to 14 days before documents associated with a transaction are available for review in MNLARS. However, OLA found many examples where the barcode association process simply did not work, leading to a large number of digitized documents in MNLARS that are not matched to any transaction. OLA also found that MNLARS processes to resolve unmatched documents were so cumbersome that employees often used paper documents to remedy issues. DPS cannot process title transactions with missing documents, so they remain in the work queue and eventually become part of the title backlog.

OLA analyzed approximately 156,000 titles in the December 2, 2018, work queue to determine the significance of unmatched documents on the title backlog problem.

After factoring out unmatched documents resulting from the 10- to 14-day scan window, OLA found over 10,000 backlogged titles that had one or more unmatched documents. Most of these backlogged titles were from 2018, but some go back to the launch of MNLARS in July 2017.

FINDING 4**Barcode data entry errors are resulting in backlogged titles.**

DPS recommends that deputy registrars use a barcode scanner to reduce the likelihood of errors when entering title transactions in MNLARS. However, the system allows deputy registrars to manually enter barcodes. We found that MNLARS lacked appropriate data validation controls for the entry of barcodes, and that this control gap has resulted in a large number of unmatched documents and backlogged titles.

MNLARS has edits that prevent users from entering a barcode number with more than 12 characters, or a barcode that has previously been issued. However, the system lacks other input validation controls to prevent common data entry errors. For example, MNLARS will accept a barcode between 1 and 12 digits in length, even though the unique barcodes placed on documents are 10 digits long. The system also will accept characters, even though barcodes only contain numbers. Previous versions of MNLARS used 12-digit barcodes with “MN” as the leading characters. However, after simplifying barcodes to only use ten numbers, DPS and MNIT did not make corresponding input validation changes to the system.

OLA analyzed MNLARS and found 8,050 unmatched documents with barcode numbers that were not ten-digit numbers. Some common errors not prevented by field-length validations included the removal or addition of leading zeros in a barcode number. In other cases, it appears as if deputy registrars entered a portion of the vehicle identification number, instead of the barcode number. OLA estimates that these unmatched documents with erroneous barcode numbers resulted in approximately 3,600 backlogged titles in the December 2, 2018, work queue.

RECOMMENDATION

DPS and MNIT should build data validation controls to prevent barcode data entry errors.

FINDING 5**MNLARS lacks functionality to effectively manage the unmatched document inventory.**

MNLARS has an unmatched documents screen to help staff find missing documents and associate them to the correct title applications. However, design problems limit the usefulness of this key business function.

MNLARS now contains over two million unmatched documents. However, the Review Unmatched Document Images screen provides no searching, filtering, or sorting capability. The massive amount of data, coupled with no ability to narrow the dataset, makes locating missing documents a time-consuming process. Compounding the retrieval problems, when staff successfully associate an unmatched document with a title application, that document remains on the Review Unmatched Document Images screen indefinitely. This means that the population of unmatched documents never decreases, and that the population includes an ever-increasing number of documents that have been previously matched to their respective title transactions.

DPS and MNIT have been aware of the need to improve this functionality and had added a request for improvement to the master list of gaps, defects, and future enhancements. However, other MNLARS fixes have been given higher priority.

RECOMMENDATION

DPS and MNIT should redesign the unmatched document functionality in MNLARS so that staff can more effectively associate missing documents to the proper title transactions.

Contributing Factor: Staffing

OLA expanded its testing to assess the impact of staffing on the title backlog problem. On average, DPS receives about 139,000 title applications per month. In the spring, applications increase to about 160,000 per month. However, after spiking in late spring, applications gradually decline to about 110,000 per month during the winter. To achieve a 30-day turnaround time, DPS needs to process roughly the same number of title applications as they take in on a monthly basis.

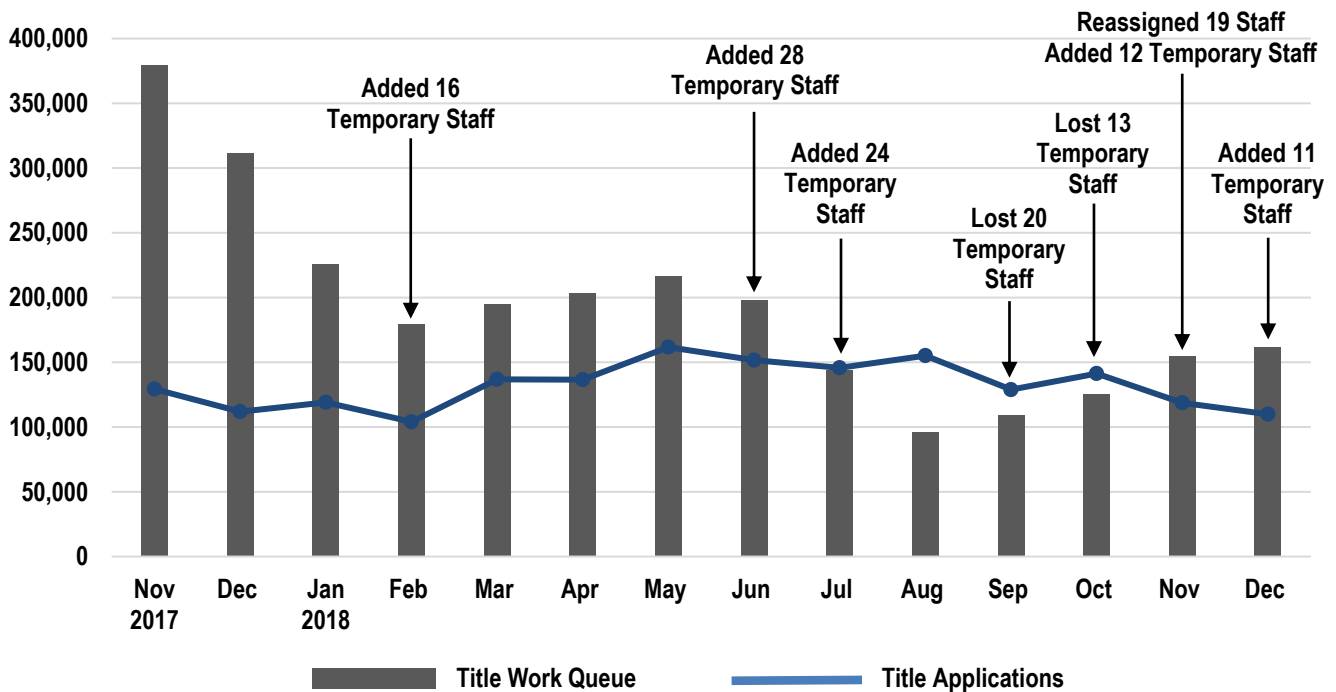
OLA's review of the work queue data suggests that staffing levels have a direct relationship on the size of the title backlog. The data also suggests that DPS will not be able to reduce the title backlog unless staffing increases to a level that exceeds the level in place prior to MNLARS.

FINDING 6**DPS has not been able to keep the title backlog from growing with its current staffing level.**

DPS needs to process roughly the same number of title applications as they take in on a monthly basis to keep the title backlog from growing. However, our review of work queue data suggests that this most likely will not be possible unless DPS has a staff size that exceeds the level that was in place before MNLARS.

With help from temporary staff, DPS has been able to reduce the title backlog. For example, in June and July 2018, DPS added 52 temporary staff and two supervisors from the Minnesota Department of Revenue. With this surge in staffing, DPS reduced the unprocessed title work queue to about 96,000 in August 2018, its lowest point since the MNLARS launch. However, when DPS lost about the same number of people over the next three months, the work queue steadily increased to about 162,000 at year end. This trend suggests that even during months when title applications are low, the department has difficulty meeting its turnaround time target without staff augmentation. Exhibit 4 illustrates the relationship between staff augmentation and the number of unprocessed titles in the work queue.

Exhibit 4: Relationship between Staff Augmentation and the Number of Titles in the Work Queue (November 2017 through December 2018)



SOURCE: Office of the Legislative Auditor.

Exhibit 4 points out that it is possible to keep the title backlog in check by assigning additional temporary staff, which may be an appropriate short-term solution. However, before making permanent staffing decisions, OLA suggests fixing the technical problems that make title processing unnecessarily time consuming.

RECOMMENDATIONS

DPS should use staff augmentation as a short-term tool to keep title turnaround times at a reasonable level.

DPS should develop a long-term staffing plan to comply with turnaround time standards.

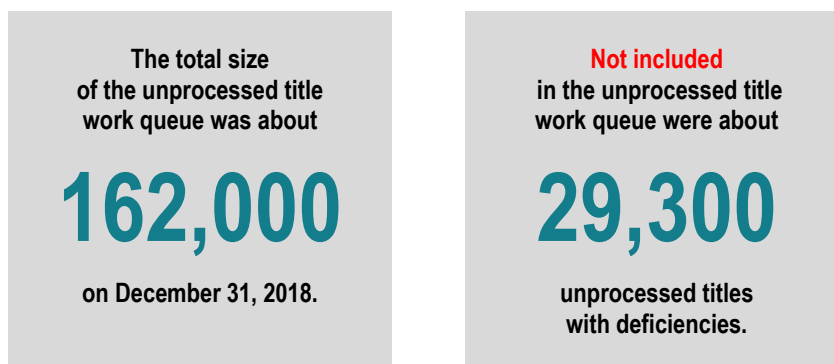
Contributing Factor: Title Deficiencies

The unprocessed vehicle title queue does not include titles with “deficiencies.” DPS adds a deficiency to a vehicle title transaction when information is missing, invalid, or must be corrected by the customer. An example may be a missing odometer reading or lien release document. After adding a deficiency, DPS sends the customer a letter that describes what is wrong and what must be done to remedy the situation.



Vehicle titles with outstanding **deficiencies** are excluded from title backlog statistics in the *MNLARS Quarterly Update* reports.

After the MNLARS launch, nearly 4 percent of the title transactions entered by deputy registrars had deficiencies. However, since July 2017, deputy registrars and DPS have made significant progress to reduce title deficiencies to a rate that is now less than 2 percent.



Title transactions with deficiencies are only partially complete, meaning that DPS and deputy registrars must use resources to resolve issues that can be months or even years old.

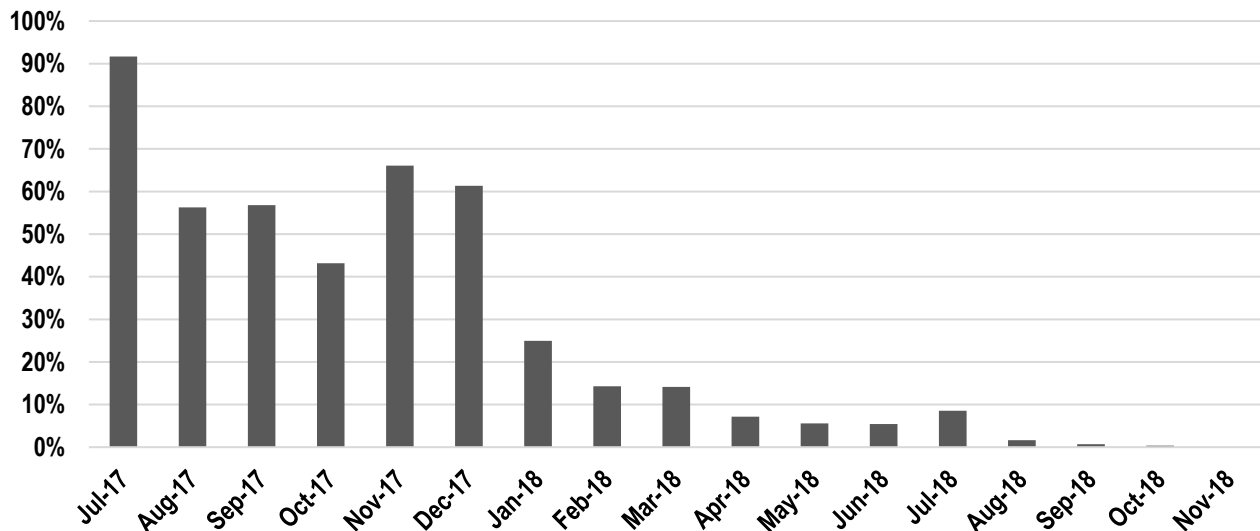
FINDING 7

DPS does not include unprocessed titles with deficiencies in the *MNLARS Quarterly Update* reports.

OLA found that DPS had not issued titles for approximately 29,000 transactions with deficiencies. However, DPS and MNIT did not include titles with deficiencies in the *MNLARS Quarterly Update* reports. *Laws of Minnesota 2018*, Chapter 101, requires DPS to provide ongoing reporting on the backlog of vehicle titles. Although this law does not clarify the definition of a backlogged title, deficiencies prevent many titles from being issued and merit more transparent disclosure.

Deputy registrars and DPS spend considerable time fixing old deficiencies in order to reintroduce transactions into the work queue. OLA analyzed the December 2, 2018, work queue and found 2,422 reintroduced deficiency transactions that were awaiting processing. Most of these transactions fixed deficiencies that were at least six months old. For example, there were 403 reintroduced transactions with original application dates from November 2017. These 403 transactions represented about 65 percent of the total transactions in the December 2, 2018, work queue with November 2017 application dates. As Exhibit 5 illustrates, deficiencies play a particularly significant role for backlogged titles with the oldest original application dates.

Exhibit 5: Aging of the December 2, 2018, Work Queue, Depicting the Percentage of Titles Awaiting Processing that Resulted from Reintroduced Deficiency Transactions



Source: Office of the Legislative Auditor.

Beyond the requirements in law, DPS and MNIT could improve stakeholder understanding of the title backlog problem by reporting information about titles with deficiencies. At a minimum, OLA encourages DPS and MNIT to provide information about the ongoing number of titles with deficiencies, along with the average amount of time that it takes to resolve problems and issue titles.

A MNLARS issue with registering vehicles with deficiencies is also contributing to the title backlog problem. OLA was told that a title deficiency should not inhibit a customer from renewing a vehicle's registration. However, MNLARS prevents customers from registering vehicles that have deficiencies. As a workaround, deputy registrars must change the deficiency status in MNLARS to "resolved" to process a registration. This change puts the title transaction back in the work queue, requiring DPS to later reapply the appropriate deficiency code. This design problem results in unnecessary work and introduces the possibility of processing a title for a vehicle with an unresolved issue. When questioned, DPS told us that they hoped to address this problem in a future release of MNLARS.

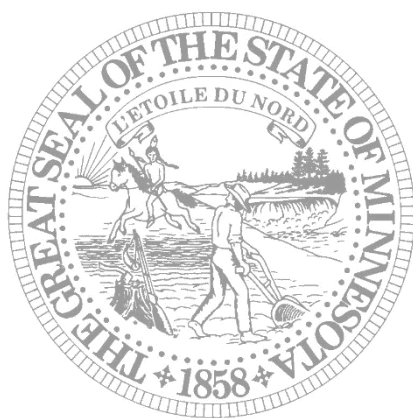
Finally, OLA identified a significant amount of deficiency data in MNLARS that appears to have questionable integrity. For example, OLA identified about 158,000 titles that have unresolved deficiencies and indicate a title was issued. DPS told us that a title cannot be issued if it has an unresolved deficiency, a business rule that seems inconsistent with data currently in MNLARS. OLA estimates that roughly 99 percent of the questionable data came from the former mainframe-based legacy system.

RECOMMENDATIONS

DPS and MNIT should report information about titles with deficiencies in the *MNLARS Quarterly Update* reports.

DPS and MNIT should fix the MNLARS flaw that prevents customers from registering vehicles with title deficiencies.

DPS should undertake a special project to clean-up data integrity issues that were introduced into MNLARS from the former mainframe-based motor vehicle system.



MNLARS Funding Needs

One requirement in *Laws of Minnesota* 2018, Chapter 101, is for OLA to provide an assessment of estimated funding needs for the continued development, operations, and maintenance of MNLARS. Though the Legislature directed this requirement at OLA, it is important to note that developing budgets for computer systems is a primary responsibility of agency management. DPS and MNIT prepared their budgets at a given point in time, based on a variety of assumptions. A change in any one assumption could result in a budget modification.

To fulfill the mandate, OLA studied DPS and MNIT's detailed budget for the MNLARS project. OLA also requested the long-term cost model for the ongoing operation of MNLARS, including costs for hardware, software, staff, and contractors.

MNLARS Funding History

The focus of this audit is MNLARS costs and funding needs going forward. However, OLA is providing a history of costs and funding through December 2018 to help stakeholders understand the context surrounding DPS and MNIT's current funding requests.



The Legislature created a “**technology account**” in the Special Revenue Fund. Since 2008, this account has been used to pay for MNLARS project costs.

The Governor's 2008 supplemental budget included a request for \$12 million annually over four years to replace the aging driver and vehicle systems. The Legislature responded by authorizing a technology surcharge of \$1.75 per vehicle registration. Effective through June 30, 2012, the surcharge was projected to raise about \$49 million. The Legislature directed the surcharge revenues into a technology account that could be used for research, development, deployment, and maintenance of a driver and vehicle services information system.

The 2011 Legislature extended the surcharge through June 30, 2016, but at a lower amount of \$1 per vehicle registration renewal. Along with extending the surcharge, the 2011 Legislature transferred \$7.1 million from DPS Driver and Vehicle Services operating accounts into the technology account. And finally, the 2011 Legislature increased vehicle filing fees by \$1.50, directing a portion of the fee increase to the technology account until there was sufficient funding for the “administration, development, and initial full deployment” of MNLARS.

In 2016, the Governor asked the Legislature to extend the technology surcharge three more years to fund operating costs for completed parts of the system. The Governor also made similar requests in 2017 and 2018 to support the ongoing operation and maintenance costs of the new MNLARS system. The fee-based

requests were expected to raise between \$10 million and \$16 million annually. The Legislature did not support these requests for ongoing technology fees.

When DPS launched the motor vehicle portion of MNLARS in July 2017, the agency had received about \$106 million in funding. MNLARS expenditures were about \$79 million, leaving \$27 million to complete the driver's license functionality and some motor vehicle features that were not part of the initial MNLARS release. MNLARS expenditures increased to about \$112 million as of December 2018, and total project funding rose to \$116 million, after a one-time appropriation of \$9.65 million by the 2018 Legislature.

Total MNLARS project funding
was about

\$116
million

through December 2018.

Total MNLARS expenditures
were about

\$112
million

through December 2018.

MNLARS Project Costs

DPS and MNIT estimated that the cost to finish the MNLARS project would be about \$50 million, as of January 2019. This estimate includes about \$8.5 million to implement the remaining driver's license functionality and \$41.5 million to complete the motor vehicle components of the system. At about \$45.8 million, the vast majority of the remaining project budget is for contracted services, as Exhibit 6 illustrates.

Exhibit 6: Estimated Costs in Millions to Finish MNLARS (as of January 2019)

Cost Category	Driver's Licenses			Motor Vehicles			MNLARS Project Total
	Fiscal Year 2019	Fiscal Years 2020-2021	Total	Fiscal Year 2019	Fiscal Years 2020-2021	Total	
Contractors	\$5.50	\$3.00	\$8.50	\$6.50	\$30.80	\$37.30	\$45.80
MNIT Staff	0.00	0.00	0.00	0.00	0.00	0.00	0.00
DPS Staff	0.00	0.00	0.00	0.08	3.30	3.38	3.38
Hardware / Software	0.00	0.00	0.00	0.10	0.02	0.12	0.12
Other	0.00	0.00	0.00	0.10	0.60	0.70	0.70
Totals	\$5.50	\$3.00	\$8.50	\$6.78	\$34.72	\$41.50	\$50.00

SOURCE: DPS project budget data.

OLA conducted detailed testing to validate the accuracy of the remaining \$50 million project budget. Our team traced the high-level budget numbers to a series of more granular cost breakdowns and, ultimately, to detailed source information. However, OLA did not circle back and test the propriety of the \$112 million already spent. There are only minimal hardware and software costs in the remaining budget because DPS and MNIT made those purchases earlier in the project. The following sections discuss the specific work done to validate budgets in the two most significant categories.

Budgetary Category: Contractors

Totaling \$45.8 million, contractors are the most complex part of the remaining project budget. OLA's audit assumption was that we should be able to take the total contractor budget and completely break it down to all of the specific work elements that must be done to finish MNLARS. And conversely, OLA expected to be able to take any work in the project plan and find where it fits within the \$45.8 million total.

The \$45.8 million cost estimate for contractors includes \$8.5 million for driver's license and \$37.3 million for the motor vehicle components of MNLARS. For the remaining driver's system enhancements, DPS and MNIT have a fixed price contract with Fast Enterprises, LLC (FAST). OLA traced the \$8.5 million remaining contractor budget to detailed provisions in the contract with FAST.

DPS and MNIT manage all motor vehicle development work in an Agile project management tool. The tool allows the agencies to size work in logical groups, commonly referred to as "epics." The agencies then classify the size of each epic, ranging from extra-small to extra-large, and breakdown the work into two-week "sprints." This methodology gave the agencies the ability to derive the MNLARS project end date. Applying standard contract rates, it also helped the agencies determine the remaining development cost estimate of \$37.3 million.

OLA found that DPS and MNIT used an industry standard methodology to build its motor vehicle contractor budget from the ground up, based on a detailed estimate of the remaining work that needs to be done. However, this budget assumes that the agencies have a complete understanding of everything that needs to be done to finish all motor vehicle functionality. The budgets, however, do not include adjustments, such as a percentage add-on, to account for unknown issues that could arise or an overly optimistic estimation of time required to complete the project. When questioned, MNIT's chief business technology officer told us that she included a 10 percent project variance factor when she worked in the private sector. However, she was instructed by state agency finance professionals that this was not a common practice in state government.



DPS and MNIT used an industry standard methodology to build the motor vehicle contractor budget from the ground up, based on a detailed estimate of the remaining work that needs to be done. However, the budget has no adjustments to account for unknown issues that could arise during the final stages of development.

Budgetary Category: State Employee Staffing

Included in the remaining project budget is about \$3.3 million for state staff. DPS leaders told us that they planned to use project funds to hire 18 business staff to help define business requirements and conduct user acceptance testing. OLA found that the budgeted amounts for these positions seem reasonable, and we agree that a skill gap exists in these two areas. However, DPS has not determined a permanent funding source for these 18 positions after the MNLARS project concludes. Business staff performing these functions generally would not be considered as part of a technology maintenance and operations budget.

MNIT will be responsible for providing oversight and direction to the vendors until the MNLARS project concludes. MNIT also will need to assist with various MNLARS implementation tasks. However, the project budget contains no funding for MNIT's payroll costs. When OLA inquired about this omission, we learned that MNIT's project costs are accounted for in the MNLARS operational budget.

FINDING 8

MNIT payroll costs are not properly split between the MNLARS project and operational budgets.

DPS and MNIT budgeted all estimated MNIT payroll costs in the MNLARS operational budget. This practice resulted in an understatement of the estimated costs to develop MNLARS, and it overstated operating costs. Depending on future legislative restrictions on the use of funds, budget misclassifications also could lead to expenditures that do not comply with compliance requirements in law. Using historical records, OLA estimates that MNIT expenditures for the MNLARS project are between \$1 million and \$2 million annually.

RECOMMENDATION

DPS and MNIT should budget MNIT staff costs between the MNLARS project and operational budgets based on the work that needs to be done for each activity.

MNLARS Ongoing Operational Costs

DPS and MNIT estimated that the cost to operate MNLARS would be about \$32.5 million for the upcoming biennium, or about \$16.25 million annually. This estimate included about \$15.1 million to operate driver's license components and \$17.4 million for the motor vehicle parts of MNLARS. Exhibit 7 illustrates the operating budget for MNLARS for the upcoming biennium.

Exhibit 7: Estimated Costs in Millions to Operate MNLARS in Fiscal Year 2020 and Fiscal Year 2021

Cost Category	Driver's License Fiscal Years 2020-2021	Motor Vehicle Fiscal Years 2020-2021	MNLARS Total
Contractors	\$ 6.40	\$ 1.00	\$ 7.40
MNIT Staff	3.30	7.50	10.80
DPS Staff	0.00	0.00	0.00
Hardware / Software	5.10	8.60	13.70
Other	0.30	0.30	0.60
Totals	\$15.10	\$17.40	\$32.50

SOURCE: DPS project budget data.

OLA requested MNLARS budget data for the current year and the next two biennial budget periods to assess the accuracy and completeness of the long-term operating budget. DPS and MNIT had budgetary data that aligned with projections in the Governor's FY 2020-21 Biennial Budget. These projections reflect a significant increase in the cost to operate MNLARS from the March 2018 supplemental budget. However, the new chief business technology officer has made more precise budgeting and fiscal oversight a higher priority. With an annual run cost exceeding \$16 million, it is clear that DPS lacks the necessary funding to operate MNLARS going forward.

FINDING 9

DPS and MNIT do not have a long-range funding model for MNLARS.

Laws of Minnesota 2018, Chapter 101, directs OLA to provide an assessment of estimated funding needs for the continued development, operations, and maintenance of MNLARS. After examining supporting documentation, OLA found that the budgets compiled by DPS and MNIT fairly represent what it will cost to operate MNLARS during the next two biennial budget periods. However, the budgets do not include funding for 18 staff that DPS plans to hire and pay for out of the project budget.

Extremely large computer systems like MNLARS need both a long-term budget and a funding model to pay the ongoing maintenance and support costs. In its budget

request, DPS proposed a \$2 transaction fee and estimated that the revenue from that fee would be about \$16 million annually. Assuming there are no cost overruns, the proposed transaction fee provides slightly less revenue than will be necessary to operate the system. DPS also receives about \$1.9 million annually in filing fee revenue, but that revenue source expires at the conclusion of the MNLARS project.

OLA encourages DPS to work with the Legislature to develop a responsible funding model for MNLARS. The funding model should take into consideration all operating costs and all current and proposed sources of revenue. OLA also encourages DPS and policymakers to consider building reserves into the funding model to pay for significant hardware and software upgrades that typically occur as major computer systems age.

RECOMMENDATIONS

DPS should work with the Legislature to develop a responsible funding model to pay the ongoing support costs for MNLARS.

Before making major computer system investments, legislative committees should gain an understanding of the long-range cost model and proposed funding strategy.

Similar to work done on the project budget, OLA conducted detailed testing to validate the accuracy of the \$32.5 million budget to operate MNLARS for the upcoming biennium. Our team traced the summary budget numbers to more granular cost breakdowns and source documentation. OLA also examined the make-up of the operating budget to verify that it included all costs, including some that are often overlooked, such as cyber security and disaster recovery.

Driver's License Operational Costs

DPS and MNIT projected operating costs for the driver's license module to be about \$15.1 million for the upcoming biennium. Earlier in the MNLARS project, DPS and MNIT purchased a license to use FAST software. Included in the ongoing operating budgets are costs for annual software maintenance and support services from FAST. The operating budget also has estimated costs for MNIT services, since the FAST software runs on computers that MNIT manages.

Maintenance costs, estimated at \$1.5 million over the biennium, covers only FAST software. DPS and MNIT also procured support services from FAST, totaling \$6.4 million over the biennium. Full-time FAST representatives provide services, such as software configuration, training, installation of software updates, and customized requests. MNIT believes that it could provide these support services at a lower cost in the future. DPS and MNIT budgeted approximately \$1 million annually to hire eight staff to take on this work and slowly transition into the software support role.

Motor Vehicle Operational Costs

DPS and MNIT projected operating costs for motor vehicle services to be about \$17.4 million for the biennium. Included in this projection is \$1 million for six contractors for Fiscal Year 2021. The remaining cost estimates are for MNIT staff, hardware, software, and infrastructure support.

Cost estimates included approximately \$1.7 million annually for MNIT to hire a team of internal developers and essential software support professionals. This new team will begin to transition MNLARS from a contractor-developed system to a MNIT-supported software. This new team will be responsible for any future software modifications, reducing the long-term dependence on contractors.



MNLARS System Outages and Slowdowns

In OLA's November 2018 report titled, *MNLARS Quarterly Report Verification – Outages and System Slowdowns*, we found that DPS and MNIT misreported a small number of system outages. OLA also found that the agencies did not clarify system availability expectations with stakeholders or report system performance statistics for some stakeholders. Finally, OLA noted that the agencies' system monitoring tools did not measure all outages.

OLA revisited this performance measure to assess progress made on implementing the recommendations. OLA did not expect DPS and MNIT to implement all of the recommendations due to the short amount of time since the prior report release. However, one noteworthy accomplishment since our last audit was the implementation of a sophisticated monitoring tool to promptly detect outages and slowdowns that occur at deputy registrar locations.



Since our last report, DPS and MNIT have implemented a new monitoring tool, enabling greater insight into end-user issues and outages.

System Availability

OLA expected DPS and MNIT to use recommendations from our most recent audit to more accurately report system outages and slowdowns. The December 2018 *MNLARS Quarterly Update* report contained system availability metrics for September and October 2018. DPS and MNIT did not include metrics for November, citing the need to perform "sufficient quality assurance reviews on the data collected."⁶



OLA found only one small error in the uptime statistics in the 2018 *MNLARS Quarterly Update* report, a significant improvement from our last audit.

OLA found that DPS and MNIT improved the accuracy of its system uptime metrics. All metrics in the most recent *MNLARS Quarterly Update* report were accurate, except for the October uptime metric for the new driver's license system. DPS and

MNIT claimed 100 percent uptime for the driver's license system in October 2018. However, OLA independently computed a 99.54 percent uptime for that month. The difference was the result of outages caused by third-party service providers.

MNLARS relies on third-party services provided by the American Association of Motor Vehicle Administrators, the United States Federal Government, and other

⁶ December 2018 *MNLARS Quarterly Update* report.

state and private entities. These external services are for functions such as vehicle identification number lookup, passport and social security number verifications, and image processing. It is important to include third-party services in uptime metrics because the state cannot issue titles and drivers' licenses without their availability.

The December 2018 *MNLARS Quarterly Update* report did not include information about a significant outage that occurred in Hennepin County in October 2018. This outage was not due to any problems with MNLARS, or underlying information technology services provided by MNIT. Instead, it resulted from technical problems between Hennepin County and one of its information technology service providers. Collectively, Hennepin County and the service provider worked to resolve the issue and restore the ability to process MNLARS transactions.

OLA agrees that the Hennepin County issue did not merit inclusion in the October MNLARS uptime statistics. However, going forward, we encourage DPS and MNIT to discuss all major outages in the *MNLARS Quarterly Update* report, even if those issues were outside of their control. The Hennepin County issue garnered significant media attention, portraying the outage as MNLARS-related. By not discussing the Hennepin County issue and its root cause, readers could call into question the accuracy of the report because of the omission.

March 29, 2019

James Nobles, Legislative Auditor
Office of the Legislative Auditor
Centennial Office Building
658 Cedar Street
Saint Paul, MN 55155

Dear Mr. Nobles,

We would like to thank you and your team for their work conducting this audit to assess the accuracy and completeness of the information reported to the legislature by the Department of Public Safety (DPS) and Minnesota IT Services (MNIT) in the MNLARS Quarterly updates. Your team worked hard to understand the business and technology processes at issue and conducted a thorough audit.

This is the second quarterly information technology audit performed by your team to assess the accuracy and completeness of the information contained in the MNLARS Quarterly updates. This audit focused on performance measure four, *Reduction in the Backlog of Vehicle Titles* and performance measure six, *System Performance Including Slowdowns, Outages, or other Performance Issues*. Your staff also examined the funding model for the continued development, operation, and maintenance of the Minnesota Licensing and Registration System (MNLARS); defined to include both the driver services and vehicle services functionality. We concur with your team's conclusion that DPS and MNIT generally complied with the requirements of the law in all material respects. We recognize that improvements should continue to be made and welcome your findings and recommendations.

Finding 1: DPS does not have processing time standards for each of its vehicle title types.

While there is no legal requirement to have processing time standards or to separate them by vehicle title type, we recognize that such standards are an important performance measurement tool and necessary for transparency and accountability purposes. As a result, in the first quarter of 2019, DPS in concert with MNIT and the Governor's Office created a general time standard for titles and drivers licenses which were 21 days for drivers licenses and 30 days for titles. DPS is committed to working with the established Executive Steering Committee (ESC) and other stakeholders to establish reasonable processing time standards for each vehicle title type. DPS will create a Driver and Vehicle Services (DVS) dashboard by the 3rd quarter of 2019 to display on its public website which will identify the various standards and DVS' progress toward meeting those standards.

Finding 2: DPS uses imprecise methods to develop some information in the *MNLARS Quarterly Update* reports.

At this time, DPS utilizes a manual process to determine the vehicle title processing turnaround times. The goal is, and always has been, to utilize MNLARS to generate the necessary reports and move away from manual processes. We agree that better use of business intelligence systems will help DPS gain a deeper understanding of the factors that contribute to backlog problems as well as increase reporting accuracy. Developing improved

reports for DVS and greater visibility into the deficiency management process are on the master prioritization list, but were not prioritized over other items necessary to complete customer transactions. DPS and MNIT will continue to work together to ensure that MNLARS is capable of generating accurate reports to eliminate manual reporting processes.

Finding 3: Continued reliance on centralized document scanning and mail services adds time to the title processing workflow

Minnesota law requires DPS to issue titles only after being satisfied that an applicant is entitled to the issuance of a title. To do so, we must receive and review the application with all the required and necessary documentation.

Centralized scanning is not a new business process under MNLARS. Rather, this was the long-standing process pre-MNLARS. There has been no change to this process except the order that DVS now scans the documents internally. Once the documents are sent to DVS, pre-MNLARS they were scanned as the last step of the process; post-MNLARS they are scanned as the first step. This change occurred for DVS efficiency purposes so that the opening of the mail and scanning could occur together. Deputy registrars place a barcode onto the document to associate it with the transaction.

We are committed to engaging with deputy registrars to determine how to improve business processes and meet competing customer interests. For example, scanning documents at the deputy registrar counter will increase the time the customer is at the counter, which in turn may reduce the number of customers a deputy registrar can service without increasing staffing levels. But, it will also reduce the length of time the documents are in transit, which will reduce the time it takes for the customer to receive their title. DVS will continue to work with the business process work group, an on-going subcommittee of the ESC, to assess options and to make prioritization recommendations for any required technical changes to MNLARS. FAST is currently including scanning for high volume Deputy Registers on a pilot basis and depending on the feedback we receive it may become a standard business practice for driver licenses.

Finding 4: Barcode data entry errors are resulting in backlogged titles.

We agree that data validations controls should be built in to MNLARS to prevent barcode data entry errors. This has now been added to the master prioritization list.

Finding 5: MNLARS lacks functionality to effectively manage the unmatched document inventory.

We agree MNLARS has lacked the functionality to effectively manage the unmatched document inventory. Locating unmatched documents is a time consuming process which negatively impacts turnaround times. Initially at rollout, MNLARS duplicated documents when a title and registration transaction occurred at the same time. This caused the duplicates to become “unmatched” documents. Currently the unmatched document queue has over 2 million documents in it. Due to the volume and lack of ability to search for documents, DVS staff have had to revert to manually reviewing the paper versions of the documents in order to process a title. This has had a negative impact on the title turnaround time. However, in the next MNLARS Release (Release 1.16) expected in June 2019, there are fixes which should remove these unnecessary duplicates. It is estimated that once this is completed, the queue will be reduced to 76,000. In addition, Release 1.16 contains improved sorting, filtering and searching of the unmatched document queue which will speed up the ability to match the documents to the transactions.

Finding 6: DPS has not been able to keep the title backlog from growing with its current staffing level.

We agree with the assessment that staffing levels have a direct relationship on the size of the title backlog and that DPS will not be able to reduce the title backlog unless staffing increases to a level that exceeds the level in place prior to MNLARS. As recommended, DPS has utilized staff augmentation as a short-term tool to keep title turnaround times at a reasonable level. DPS has contracted with Minnesota Department of Revenue for their seasonal staff outside of the tax season and contracted with a private staffing service for assistance with title processing. However, even with these options, DPS has not been able to permanently keep the title turnaround time under 30 days. In addition, some stakeholders have provided information to DVS indicating a need for a title turnaround time under 14 days. This cannot be achieved under the current staffing level even with temporary staff augmentation. Reliance on short-term temporary staff increases overall costs because DVS needs to continue to bear the cost of training new temporary staff; in this labor market temporary staff are hard to keep as most will leave to seek permanent employment. Temporary staff do not stay long enough to become proficient at the difficult transactions, which creates longer turnaround times for those transactions. The Governor's budget recommends adding 39 title and registration staff which are necessary to meet a consistent 30-day turnaround for all transactions.

Finding 7: DPS does not include unprocessed titles with deficiencies in the *MNLARS Quarterly Update* reports.

DPS has not included titles with deficiencies in the unprocessed vehicle title queue in the MNLARS Quarterly report. DPS is committed to reporting these titles separately in future MNLARS Quarterly reports to increase transparency. Additionally, DPS will work with the ESC to improve communication, reporting and understanding of these transactions.

DPS will continue to look into ways to effectively communicate unprocessed titles with deficiencies. A deficiency is something that prevents DVS from issuing a title in accordance with Minnesota law. This is not simply a business process. Title transactions that cannot be completed under Minnesota law are noted as having a deficiency. They are not included in the "unprocessed" queue because they have in fact been processed to the extent possible under the law, but cannot be issued due to the deficiency. The audit determined that since July 2017, deputy registrars and DPS have made significant progress to reduce title deficiencies (it was almost 4% and is now less than 2%). The remaining deficiencies were not introduced or created by MNLARS. Rather, there are specific requirements that a customer must meet before the title can be issued. For example, a title cannot be issued until a lien is released or an old title has been surrendered. Many times, customers are not motivated to resolve these deficiencies until they want to sell or otherwise transfer a vehicle. As such, the transaction can be in this status for a significant period of time which is out of the control of the deputy registrar or DVS.

In order to ensure that an individual will still be able to register their vehicle annually regardless of whether there is a title deficiency, a work around was created. Improvements to the deficiency management process in MNLARS which will eliminate the work around are on the master prioritization list for future enhancements. The Governor's recommended MNLARS funding will provide the resources necessary to develop these enhancements. This funding and the DVS staffing proposals also provide additional resources to dedicate to cleaning up any data integrity issues introduced into MNLARS from the legacy mainframe system.

Finding 8: MNIT payroll costs are not properly split between the MNLARS project and operational budgets.

DPS and MNIT will work together to separate the projected costs of MNIT payroll between the project development budget and the operation and maintenance budget. The actual costs associated with MNIT staffing are billed and reported separately between development and operation budgets.

Finding 9: DPS and MNIT do not have a long-range funding model for MNLARS.

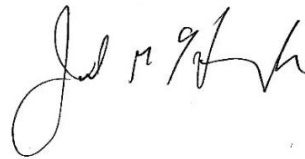
We agree that it is important to have a long-range funding model for the operation and maintenance of all technology systems, including MNLARS, to include significant hardware and software updates. As we noted in our response to the Special Review: Factors that Contributed to MNLARS Problems dated February 5, 2019, we strongly agree that agency technology needs should be addressed on an ongoing basis to ensure our heavy investments in these systems and capabilities do not fall into disrepair, remain relevant to changing customer and business needs, and remain protected from increasing cyber security threats endangering citizen and government data, and system performance and reliability. All agencies should work with the legislature to ensure existing systems have funding secured for the future and that future systems are resourced with requisite resources to operate and maintain their systems for the system's expected lifecycle. We will continue to work with the legislature and the Governor's Blue Ribbon IT Council to promote greater understanding of the long-range cost model and develop a responsible funding model to support the MNLARS system.

Once again, thank you and your team for their efforts to assess the accuracy and completeness of the information we report. We continue to look forward to informing your office, elected officials and stakeholders about the on-going progress being made on MNLARS and efforts to reduce customer service frustrations.

Sincerely,



William Poirier
Acting Commissioner and State Chief Information Officer
Minnesota IT Services



John M. Harrington
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