MNLARS Transaction Accuracy

SPECIAL REVIEW
September 25, 2018

Financial Audit Division

OFFICE OF THE LEGISLATIVE AUDITOR
STATE OF MINNESOTA

State of Minnesota
Office of the Legislative Auditor

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September 25, 2018

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This report presents the results of our special review of the Minnesota Licensing and Registration System (MNLARS) for the period July 24, 2017, through February 28, 2018. The objectives of this review were to examine the accuracy of transactions within MNLARS and to determine if the Department of Public Safety and Minnesota IT Services complied with significant finance-related requirements.
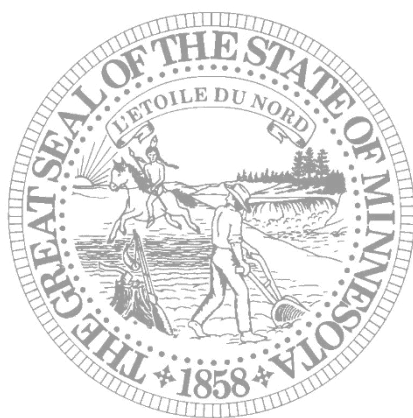
This special review was conducted by Scott Tjomsland, CPA (Audit Director); Zach Yzermans, CPA (Auditor-in-Charge); Gabrielle Johnson, CPA; Alec Mickelson; and Tracia Polden.

We received the full cooperation of agency staff while performing this review.

Sincerely,

Judy Randall

Judy Randall
Deputy Legislative Auditor

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Summary

The Minnesota Licensing and Registration System (MNLARS) is Minnesota's system to process a wide variety and large number of motor vehicle transactions, such as vehicle registrations and license plate purchases.[1] The Minnesota Department of Public Safety (DPS) Driver and Vehicle Services Division administers motor vehicle services statewide for residents. In addition to the state, individuals and businesses depend on MNLARS to process transactions accurately. Transactions in MNLARS affect how much people pay in fees and taxes, as well as whether vehicles are properly registered. While staff at DPS and in local offices throughout the state—called deputy registrars—execute transactions, computer systems like MNLARS are expected to ensure that transactions are executed accurately.

In July 2017, in coordination with Minnesota IT Services (MNIT), DPS implemented MNLARS to replace a decades-old legacy system that previously processed motor vehicle transactions. MNLARS officially began processing transactions statewide on July 24, 2017. While costs are still growing, to date, MNLARS has cost more than $90 million.

MNLARS implementation has been plagued with problems. The system's failures have produced widespread frustration among citizens, legislators, deputy registrar offices, auto dealers, and other system users. In response to concerns expressed by legislators and the public, the Office of the Legislative Auditor (OLA) examined the accuracy of transactions in MNLARS. The audit scope included most transactions recorded in MNLARS from July 24, 2017, through February 28, 2018.

Summary of MNLARS Transaction Accuracy

MNLARS appears to have generally calculated certain types of transactions correctly, such as wheelage tax, sales tax, and most license plate transactions. However, we found significant inaccuracies in other transactions, such as vehicle registration transactions for newly registered passenger vehicles and heavy nonpassenger vehicles.

While MNLARS generally calculated certain types of transactions correctly, inaccurate vehicle registration data within MNLARS and user errors resulted in some owners of similar vehicles being charged different tax amounts.

Exhibit S-1 provides an overview of the percentage of MNLARS transactions with inaccuracies and the financial impact of those inaccuracies.

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[1] MNLARS was also intended to be Minnesota's system for processing driver's licenses. As of September 2018, the driver's license portion of MNLARS was not yet operational.

Exhibit S-1: Dollar Value of Inaccuracies in MNLARS, by Transaction Type, July 24, 2017, through February 28, 2018

Type of Transaction	Number of Transactions	Percentage of Transactions with Inaccuracies	Estimated Overcharges	Estimated Undercharges
Vehicle Registration Tax				
Registration tax for passenger vehicles relying on base values established in the prior licensing system	1,281,936	3-10%[a]	N/A[b]	N/A[b]
Registration tax for passenger vehicles with base values established in MNLARS	239,153	36-46%[a]	N/A[b]	N/A[b]
Registration tax for passenger vehicles older than ten years	1,262,448	0.94%	$5,889	$578,360[c]
Registration tax for other vehicles, based on weight[d]	408,496	2.44%	$130,855	$1,965,275
Registration tax for other vehicles, based on a flat rate	164,174	0.67%	$1,453	$19,016
County Wheelage Tax				
County wheelage tax	2,169,779	0.66%	$4,805	$155,620
License Plate Transactions				
Standard passenger license plates	576,126	0.01%	$132	$19
Other license plate transactions	264,523	0.73%	$231	$18,745
Title Transactions				
Title taxes and fees	2,925,806	0.02%	$1,147	$205
Sales taxes	608,749	0.03%	$0	$8,667

NOTES: This table represents exceptions between the actual registration amounts charged and the expected amounts we calculated based on MNLARS data. Based on discussions with Department of Public Safety (DPS) and Minnesota IT Services (MNIT) staff and supplemental documentation, some exceptions may not represent actual errors.

[a] The percentage of variable registration tax transactions with inaccuracies is an estimate based on sample testing. We examined a sample of 300 passenger vehicles registered in Minnesota pre-MNLARS and 300 passenger vehicles newly registered in MNLARS. Based on the design of our sample, we are 95 percent confident that the actual amount of inaccuracy is within the estimated range. Chapter 1 provides more information about our sample testing and findings.

[b] Estimated overcharges and undercharges are not available (N/A) for passenger vehicle registration taxes. We examined a sample of 300 passenger vehicles registered in Minnesota pre-MNLARS and 300 passenger vehicles newly registered in MNLARS. Within our sample of vehicles registered in Minnesota pre-MNLARS, vehicle owners were overcharged $453 and undercharged $79. Within our sample of vehicles newly registered in MNLARS, vehicle owners were overcharged $93 and undercharged $287. Additionally, we examined a separate sample of 50 vehicles representing base value outliers and found vehicle owners were overcharged $807 and undercharged $7,368. Due to sample limitations, we could not extrapolate these amounts to the whole population.

[c] MNIT and DPS staff attributed $313,848 of these undercharges to non-use registration periods. OLA did not verify this amount.

[d] Registration tax amounts for vehicles exceeding 80,000 pounds included additional $50 fees for each 2,000-pound interval over 80,000 pounds. Our calculations of expected tax amounts discounted the additional fees by the applicable discount rates for each type of vehicle.

SOURCE: Office of the Legislative Auditor.

There are several reasons for inaccuracies in MNLARS, including inaccurate data and programming errors within MNLARS, user errors, and complex laws.

As we discuss in Chapter 1, determining accurate registration tax charges for certain types of vehicles depends in large part on accurate information about a vehicle's "base value." We found significant variability in these base value data, which resulted in inconsistent registration tax charges for customers. Some of these inaccurate data are the result of the timing of when vehicle manufacturers make certain information available. Some of these inaccurate data are the result of system users entering incorrect information. Some of these inaccurate data are the result of programming errors.

Regardless of the cause of the problem, we are most concerned that these inaccurate data currently remain in the system indefinitely. As discussed in Chapter 4, we recommend that DPS establish processes to routinely assess the integrity of the data. Additionally, we recommend that the department and the Legislature work together to (1) allow DPS to correct inaccurate information in the system and (2) ensure all vehicle owners pay the correct amount of registration tax.

While problematic data was the root cause for inaccuracies in certain types of registration tax charges, we also found inaccuracies with other types of transactions processed in MNLARS. For these other types of transactions, user errors and programming errors were typically the root causes.

MNLARS Overview

The MNLARS project began in 2008, when the Minnesota Legislature first approved funding to replace the state's licensing and registration system.[2] The system's planned development initially included both a vehicle services and driver services portion.

When MNLARS went live to the public on July 24, 2017, however, services were available only for vehicle transactions, such as title updates, vehicle registration, and license plate purchases.[3] As a result, our examination of MNLARS focused on only vehicle services transactions.

MNLARS Users

Throughout this report, when we refer to MNLARS or system "users," we mean:

- Staff at deputy registrar offices

- Staff at the Department of Public Safety (DPS)

Throughout Minnesota, many entities and individuals interact with MNLARS. On a daily basis, deputy registrar offices use MNLARS to provide motor vehicle registration and licensing services. Minnesota has 174 deputy registrar offices owned and operated by counties, cities, or private owners. The DPS commissioner appoints deputy registrars to administer the state's motor vehicle laws.[4] The deputy registrars are responsible for reviewing customer information and entering data into MNLARS. They work in close partnership with

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[2] *Laws of Minnesota* 2008, chapter 363, art. 11, secs. 6 and 7. For more information about the history of MNLARS, see Office of the Legislative Auditor, Special Reviews, *Minnesota Licensing and Registration System (MNLARS) 2017 Preliminary Review* (St. Paul, 2017), 4.

[3] DPS and MNIT decided to enter into a contract with FAST Enterprises in November 2017 to complete the driver services portion of the system.

[4] *Minnesota Statutes* 2017, 168.33.

DPS to provide a wide range of title, vehicle, and license plate services. DPS also provides vehicle registration renewals directly through its online portal and mail-in service. Automobile dealerships regularly interact with MNLARS to notify registrars of new vehicles held for resale and to transfer ownership of a vehicle title. Finally, most Minnesota residents indirectly rely on MNLARS to process titles, registrations, and license plates for the vehicles they drive.

Revenue Trends

In Fiscal Year 2018, MNLARS collected more than $1.6 billion in motor vehicle taxes and fees. As Exhibit S-2 shows, revenues associated with these taxes and fees have steadily increased over time. Depending on the type of transaction, motor vehicle taxes and fees are credited to different state funds.

Exhibit S-2: Department of Public Safety Motor Vehicle Registration and Licensing Revenue

Revenue (in millions)

Fiscal Year
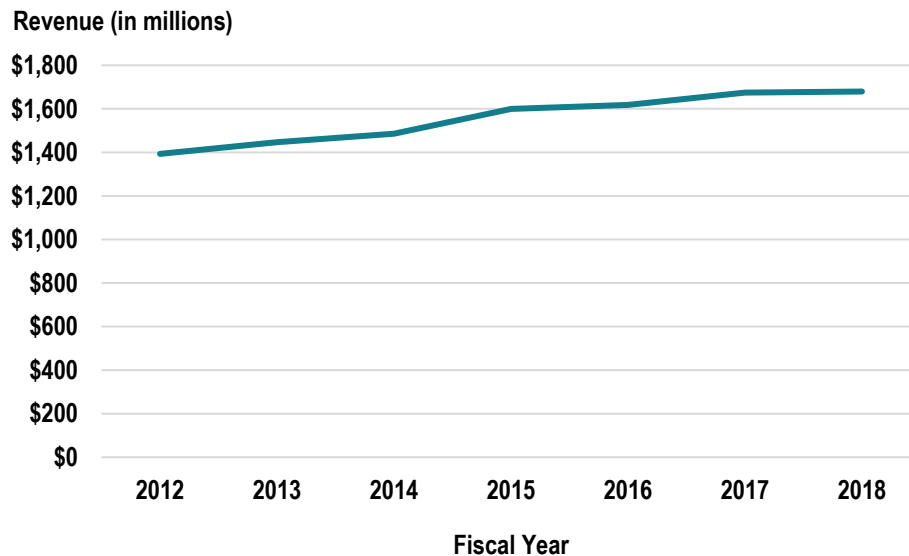
NOTES: Revenue displayed includes money collected by the Department of Public Safety Driver and Vehicle Services Division. It does not include federal revenues. Revenue amounts are adjusted to constant 2018 dollars using the U.S. Department of Labor Consumer Price Index for All Urban Consumers.

SOURCE: Office of the Legislative Auditor.

MNLARS Transaction Types

MNLARS processes several different types of vehicle transactions. Between July 24, 2017, and February 28, 2018, MNLARS recorded 14.3 million transactions. Below, we explain the key types of transactions.

Vehicle Registration Transactions. Individuals are typically required to register their vehicle annually with the state.[5] The registration fee is based on the value and age of the vehicle. There are over 30 different types of vehicles that need to be registered with the state.

Wheelage Transactions. The board of commissioners of each Minnesota county has the authority to levy an annual wheelage tax of up to $20 per year.[6] As of January 1, 2018, 53 of 87 counties levied wheelage tax upon annual registration.

License Plate Transactions. All vehicles registered in Minnesota are required to have a license plate.[7] There are more than 1,200 different variations of license plate fees in MNLARS.

Title Transactions. Individuals must have a title to demonstrate ownership of a vehicle. These transactions are the largest—in terms of number of transactions and total dollar value—that occur in MNLARS.

Audit Scope and Objectives

This audit examined motor vehicle services transactions in MNLARS for the period from July 24, 2017, through February 28, 2018. Included in our scope were registration taxes, wheelage taxes, license plate fees, and title taxes and fees.

We designed our audit to answer the following questions:

- What is the error rate of transactions processed in MNLARS?

- Did the Department of Public Safety collect the correct amount of revenue for each transaction processed in MNLARS?

Exhibit S-3 shows the amount of revenue and number of transactions processed in MNLARS between July 24, 2017, and February 28, 2018. Title transactions represented almost one-half of the revenue recorded and almost one-quarter of all transactions processed in MNLARS during that period. During its first seven months of operations, MNLARS processed more than 3.5 million title transactions and recorded more than $458.3 million in associated title fees and taxes.

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[5] *Minnesota Statutes* 2017, 168.013.

[6] *Minnesota Statutes* 2017, 163.051, subd. 1.

[7] Most vehicles are required to have two license plates, although there are some exceptions, such as for motorcycles and trailers. *Minnesota Statutes* 2017, 169.79, subds. 2-4 and 6-7.

Exhibit S-3: MNLARS Revenue by Transaction Type, July 24, 2017, through February 28, 2018

Transaction Type Tested	Total Revenue	Percentage of Revenue	Number of Transactions
Title	$458,304,160	48.4%	3,534,555
Passenger Vehicle Registration[a]	379,535,257	40.1	2,783,537
Other Vehicle Registration	45,622,656	4.8	572,670
Wheelage	23,545,930	2.5	2,169,779
License Plate	8,819,108	0.9	840,649
Total Transactions Tested	$915,827,111	96.7%	9,901,190
Total Transactions Not Tested[b]	$ 30,374,497	3.3%	4,406,915
Total Population	$946,201,608	100.0%	14,308,105

[a] As discussed in Chapter 1, we tested a sample of passenger vehicle registrations that used a variable tax rate.

[b] Transactions not tested included filing fees and registration for buses and farm trailers, among others.

SOURCE: Office of the Legislative Auditor.

Audit Methodology and Criteria

To answer the objectives, we conducted a variety of audit procedures. We interviewed DPS and MNIT staff to gain an understanding of MNLARS data components and structure. We examined relevant state laws and DPS policy documents, and inquired about how certain fees were calculated in MNLARS. To learn more about concerns regarding MNLARS, we reviewed legislative hearings, information sent to deputy registrars and dealers, news articles, and other documentation provided to us by MNLARS stakeholders. We also met with system developers to gain an understanding of MNLARS and its processes to aid in our analysis of the system data.

Using broad data analytics, we examined 96.7 percent of MNLARS transactions involving title fees, license plate fees, and registration taxes of certain vehicle classes to determine whether fees complied with Minnesota statutes. We also tested samples of vehicle registration taxes calculated using the vehicles' base value and reviewed supporting documentation to determine whether customers were charged the correct registration tax. While our audit covered a majority of MNLARS transactions, we excluded some transaction types from our testing, including filing fees, title-only administrative fees, and certain vehicle registrations.[8]

We conducted the audit in accordance with generally accepted government auditing standards.[9] 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. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives. Audit standards also require us to consider the risk of errors in accounting records and potential noncompliance when planning and conducting the audit.

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[8] Nontested vehicle registrations included farm trailers, among others.

[9] Comptroller General of the United States, Government Accountability Office, *Government Auditing Standards* (Washington, DC, December 2011).

Chapter 1: Passenger Vehicle Registration

Passenger vehicles are typically defined as any motor vehicle designed and used for carrying less than 16 passengers, excluding motorcycles and some other less common vehicles.[1] There are more passenger vehicles titled and registered in Minnesota than any other type of vehicle. By law, owners must annually register their passenger vehicles with the state.[2]

Annual vehicle registration tax for passenger vehicles is the greater of the following amounts:

- $10 + 1.25 percent of the vehicle's depreciated base value
- $35

    — Minnesota Statutes 2017, 168.013

Minnesota statutes establish annual vehicle registration tax (registration tax) for passenger vehicles as $10 plus an additional tax of 1.25 percent of the depreciated base value of the vehicle or $25, whichever is higher.[3] The base value is depreciated 10 percent each year for the first ten years of the vehicle's life. In the eleventh and succeeding years of the vehicle's life, the additional tax is $25, for a total registration tax of $35.[4] Therefore, vehicles with a model year 10 years old or newer use base value to calculate the registration tax, and vehicles with a model year 11 years old or older do not use base value to calculate registration tax.

Exhibit 1.1 shows the percentage of passenger vehicle registration transactions calculated using base value (newer vehicles) and the flat rate (older vehicles). In total, there were almost 2.8 million passenger vehicle registration transactions in the Minnesota Licensing and Registration System (MNLARS) between July 24, 2017, and February 28, 2018. The Department of Public Safety (DPS) collected about $379.5 million for these charges.

The Driver and Vehicle Services Division within the Department of Public Safety (DPS) is responsible for overseeing all vehicle registrations. The division records the state's vehicle registrations in MNLARS. DPS and Minnesota IT Services (MNIT) are jointly responsible for overseeing MNLARS.

In this chapter, we discuss the registration transactions for passenger vehicles. First, we discuss the accuracy of vehicles' base values, which are a critical component of calculating the registration tax for newer passenger vehicles. We then discuss the accuracy of registration tax charges for newer vehicles, followed by a discussion of the accuracy of registration tax charges for vehicles older than ten years. Throughout this chapter, we discuss possible reasons for the inaccuracies we found and make recommendations for improvement. Some recommendations related to findings identified in this chapter address broader concerns we had with MNLARS. We discuss those recommendations in Chapter 4.
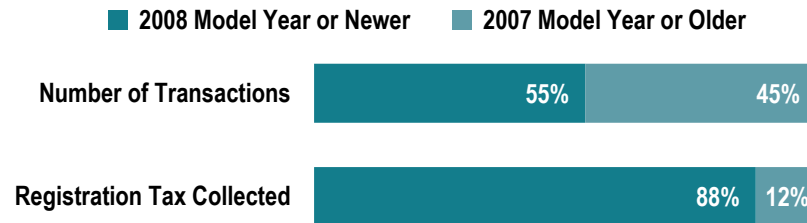
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[1] *Minnesota Statutes* 2017, 168.013, subd. 1a.

[2] *Minnesota Statutes* 2017, 168.002, subd. 33; and 168.013, subd. 1.

[3] *Minnesota Statutes* 2017, 168.013, subd. 1a(a) and (h). A vehicle's base value is the sum of the vehicle's manufacturer's suggested retail price (MSRP) and its shipping cost (destination charge).

[4] *Minnesota Statutes* 2017, 168.013, subd. 1a.

Exhibit 1.1: MNLARS Passenger Vehicle Registration Transactions, by Vehicle Model Year

■ 2008 Model Year or Newer   ■ 2007 Model Year or Older

| Number of Transactions | 55% | 45% |
| Registration Tax Collected | 88% | 12% |

NOTES: In total, there were 2,783,537 passenger vehicle registration transactions in MNLARS between July 24, 2017, and February 28, 2018. The Department of Public Safety collected about $379.5 million for these charges.

SOURCE: Office of the Legislative Auditor.

Base Value

Base Value

A vehicle's base value is calculated by summing:

- Manufacturer's suggested retail price (MSRP)
- Shipping cost (destination charge)

By law, DPS is required to determine a base value for each passenger vehicle in order to determine the registration tax.[5] Base value is made up of two components: the manufacturer's suggested retail price (MSRP) excluding options, and the shipping cost (destination charge). A vehicle's base value is established in MNLARS the first time an owner titles and registers the vehicle in Minnesota. This value remains with the vehicle for the vehicle's entire life, regardless of owner.

VIN Descriptors

Most vehicle manufacturers send vehicles' 17-digit vehicle identification numbers (VIN) and base value information to DPS throughout the year.[6] DPS stores this information at the "VIN descriptor" level. A VIN descriptor is the first ten digits of a VIN and typically includes information about the vehicle's description, such as the make, model, and model

VIN Descriptor

- First ten digits of the vehicle identification number (VIN)
- Contains information about the vehicle's description, such as the make, model, and model year

year. There were about 122,000 VIN descriptors in MNLARS as of February 2018. The number of vehicles per a given VIN descriptor can vary depending on the rarity of a vehicle. For example, about 64,000 VIN descriptors had one unique vehicle assigned to it, while some VIN descriptors (for more common vehicles) had 7,000 or 8,000 vehicles assigned to it.

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[5] *Minnesota Statutes* 2017, 168.013.

[6] The vehicle identification number (VIN) is defined as "a series of [Arabic] numbers and [roman] letters that is assigned to a motor vehicle for identification purposes." The VIN for most cars manufactured and sold in the United States has 17 digits, although there are some exceptions. 49 *CFR*, sec. 565.12(r) (2011). For the manufacturers that do not supply this information to DPS, DPS uses Black Book USA, an online resource, to obtain the information.

Base-Value Variability

Each person who owns the same make, model, and year of a given vehicle should pay the same amount of registration tax. Because of how Minnesota calculates registration tax, this means that every VIN descriptor should have one base value recorded in MNLARS.[7] However, Minnesota's current vehicle registration process allows for variability in the base value amount, which can result in inconsistent taxation among owners with similar vehicles.

There is no single source for base-value data, which results in variability and inconsistency.

DPS obtains MSRP and destination charge data (the components of base value) from multiple sources. The primary source of this information is the vehicle manufacturer. Once a vehicle manufacturer provides base-value information to DPS for a given VIN descriptor, the base value is established in MNLARS and can be used when registering new vehicles with that VIN descriptor. However, manufacturers often sell vehicles before they provide base-value data to DPS. As a result, DPS needs to find other sources to provide this information.

A second source of base-value data is a national automotive data provider. DPS contracts with this third-party vendor to obtain base-value information when it is not yet available from the vehicle manufacturer. However, there are times when the third-party vendor also does not have this information at the time of vehicle registration. In these cases, MNLARS users (such as staff at a deputy registrar office or DPS) must contact the auto dealer or refer to a reputable pricing guide (such as Edmunds, Kelley Blue Book, or NADA Guides) to obtain the base-value components.[8]

Occasionally the manufacturer will send updated information for VIN descriptors, indicating a change in a vehicle's base value. DPS staff update MNLARS to reflect this change only if the value has *decreased* from a value previously provided. State statutes specify that a vehicle's registration tax, which is derived from base value, "must not exceed the smallest total amount previously paid or due on the vehicle."[9]

We examined the base values for each VIN descriptor in MNLARS to determine the extent to which there was variability in the system. As Exhibit 1.2 illustrates, more than 30 percent of VIN descriptors for vehicles newly registered in MNLARS had more than one base value. More than half of the VIN descriptors for vehicles transferred from the previous system had more than one base value.

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[7] *Minnesota Statutes* 2017, 168.013, subd. 1a.

[8] *Minnesota Statutes* 2017, 168.013, subd. 1a(b). The National Automobile Dealers Association is commonly referred to as NADA.

[9] *Minnesota Statutes* 2017, 168.013, subd. 1a(j).

Exhibit 1.2: Percentage of VIN Descriptors by Number of Base Values, July 24, 2017, through February 28, 2018

VIN descriptors for vehicles newly registered in MNLARS

| 69% | 29% | 2% |

VIN descriptors for vehicles transferred from the previous system

| 49% | 45% | 6% |

■ **1 Base Value**   ■ **2-10 Base Values**   ■ **11 or more Base Values**
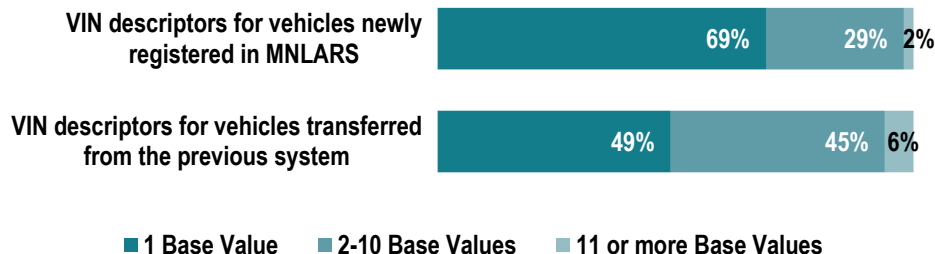
NOTES: This analysis includes the VIN descriptors for all vehicles with a vehicle registration transaction in MNLARS during our audit scope. Specifically, the analysis includes 14,869 VIN descriptors for vehicles newly registered in MNLARS and 18,796 VIN descriptors for vehicles transferred from the previous system. Fourteen VIN descriptors had between 102 and 201 base values. The remaining VIN descriptors had less than 100 base values.

SOURCE: Office of the Legislative Auditor.

In addition to reviewing the number of base values recorded in MNLARS for each VIN descriptor, we also examined the extent to which the base values for each VIN descriptor varied.

About 15 percent of VIN descriptors for newly registered vehicles had base-value ranges recorded in MNLARS of more than $1,000. Such ranges can lead to significant discrepancies in the amount of registration tax vehicle owners paid.

Exhibit 1.3 shows the percentage of VIN descriptors in MNLARS with a range of base values. As noted above, each VIN descriptor identifies a certain make, model, and model year of a vehicle. Owners of the same vehicle should pay the same amount in registration tax. To achieve this type of consistency, each VIN descriptor should have only one base value; therefore, the range of base values for a given VIN descriptor should be $0. However, as the exhibit shows, less than 70 percent of VIN descriptors for newly registered vehicles—and less than half of VIN descriptors for vehicles transferred from the previous system—have a base-value range of $0. The exhibit shows that 14 percent of VIN descriptors for newly registered vehicles had a base-value range between $1,000 and $9,999. An additional 4 percent of VIN descriptors for newly registered vehicles had a base-value range of $10,000 or greater.

Exhibit 1.3: Percentage of VIN Descriptors by Base-Value Range, July 24, 2017, through February 28, 2018

| VIN descriptors for vehicles newly registered in MNLARS | 69% | 13% | 14% | 4% |

| VIN descriptors for vehicles transferred from the previous system | 49% | 11% | 31% | 9% |

■ Range is $0   ■ Range is $1-$999
■ Range is $1,000-$9,999   ■ Range is $10,000-$999,999
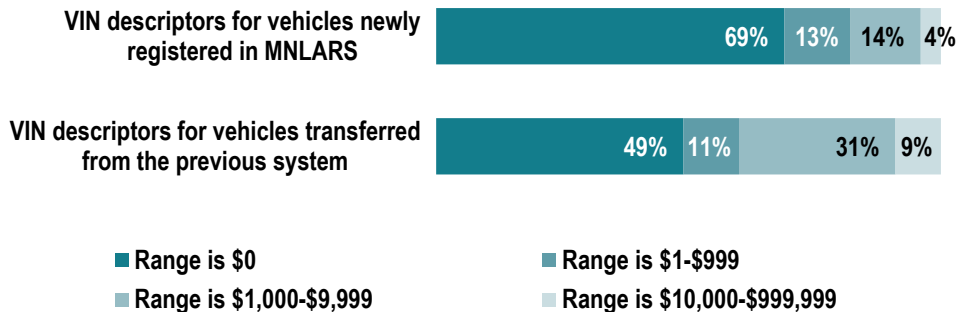
NOTES: This analysis includes the VIN descriptors for all vehicles that had a vehicle registration transaction in MNLARS during our audit scope. Specifically, the analysis includes 14,869 VIN descriptors for vehicles newly registered in MNLARS and 18,796 VIN descriptors for vehicles transferred from the previous system. A VIN descriptor contained only one vehicle for 4,837 or 32.5 percent of VIN descriptors for vehicles newly registered in MNLARS and 2,948 or 15.7 percent of VIN descriptors for vehicles transferred from the previous system. Two VIN descriptors had base-value ranges of greater than $999,000, and one VIN descriptor had a base-value range of $401,095. The remaining VIN descriptors had base-value ranges of less than $137,000. We generally found that a small number of vehicles caused the variation in base values for VIN descriptors with a difference of $10,000 or more.

SOURCE: Office of the Legislative Auditor.

For most VIN descriptors with a large range of base values, only a small number of vehicles were assigned a base value that differed $10,000 or more from the average base value. For some VIN descriptors, however, a large number of vehicles were assigned base values that differed significantly from the expected base value. One example is the VIN descriptor for model year 2018 Ford F-150 pickup trucks.

There were 130 different base values in MNLARS for 2,055 Ford F-150 model year 2018 pickup trucks.

The base value for the Ford F-150 model year 2018 pickup truck VIN descriptor should be $38,925, based on a MSRP of $37,430 and a destination charge of $1,495.[10] However, none of the Ford F-150 model year 2018 pickup trucks in MNLARS had this base value. Some of these vehicles had the correct MSRP in MNLARS ($37,430), but their base value did not include the required destination charge. As illustrated in Exhibit 1.4, the Ford F-150 model year 2018 pickup trucks recorded in MNLARS were assigned base values ranging from $2 to $69,895.

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[10] Destination charge was obtained from the manufacturer's website, https://shop.ford.com.

Exhibit 1.4: Base-Value Amounts in MNLARS for Model Year 2018 Ford F-150 Pickup Trucks

Number of Vehicles

The lowest base value of $2 was assigned to 1 vehicle.

The expected MNLARS base value is $38,925. No vehicles were assigned this base value.

931 vehicles were assigned a base value of $43,020.

The highest base value of $69,895 was assigned to 1 vehicle.

Assigned Base Value
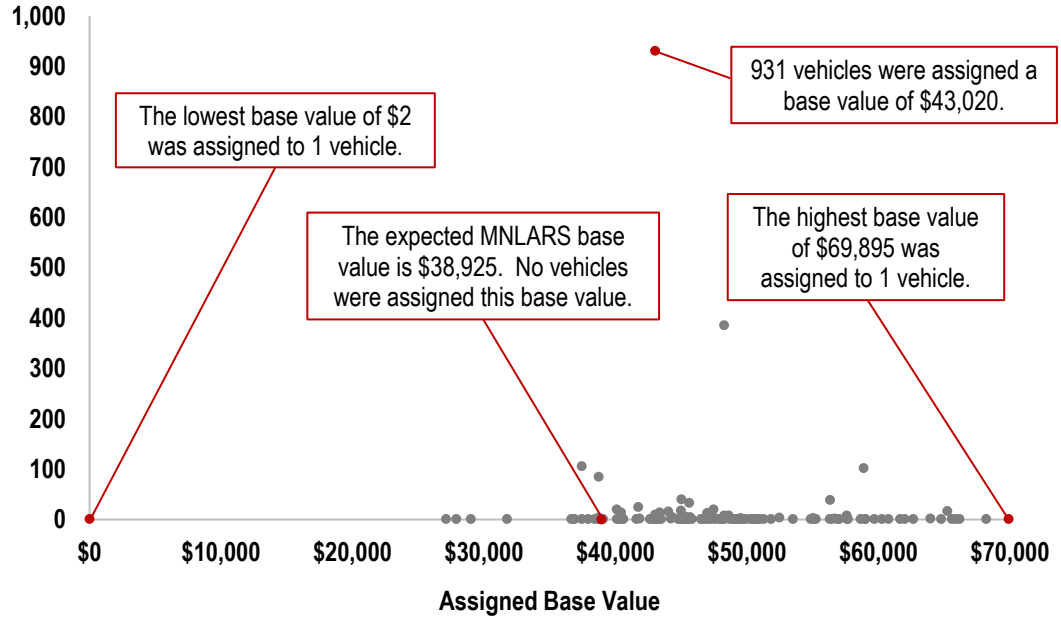
NOTES: The manufacturer's lowest base value for model year 2018 Ford F-150 pickup trucks is $38,925. There were 130 different base-value amounts in MNLARS for 2,055 Ford F-150 model year 2018 pickup trucks.

SOURCE: Office of the Legislative Auditor.

Having different base values for the same vehicle means that owners paid a different amount of registration tax for the same vehicle. Exhibit 1.5 details four different base values we observed for the 2018 Ford F-150 and the total projected tax paid over ten years for each respective base value.

Exhibit 1.5: Ten-Year Registration Tax Comparison of Different Base Values for Model Year 2018 Ford F-150 Pickup Trucks

	Base Value	Registration Tax over Ten Years
Lowest base value in MNLARS	$2	$350
Expected base value	$38,925	$2,506
Most common base value in MNLARS	$43,020	$2,763
Highest base value in MNLARS	$69,895	$4,411

SOURCE: Office of the Legislative Auditor.

As illustrated in Exhibit 1.5, the owner of a 2018 Ford F-150 pickup truck with an assigned base value of $38,925 (the manufacturer's lowest base value) will pay $2,506 in registration tax during the first ten years of the vehicle's life. In contrast, an owner with an assigned base value of $43,020 (the most frequently assigned base value) will pay $2,763 in registration tax over the first ten years of the vehicle's life. The second vehicle owner is paying $257 more in registration tax than the first vehicle owner, even though they should be paying the same amount.

Reasons for Base-Value Variability

The variance in base value for a given VIN descriptor is caused by many factors, including unreliable base-value data and input errors. We discuss these and other causes below.

Unavailable base value. According to DPS staff, it can take more than six months for manufacturers to provide base-value information on new vehicles. In cases where neither the manufacturer nor the third-party vendor has base-value information for a specific vehicle, the MNLARS user (DPS or deputy registrar staff) should rely on information provided by the dealers. If the dealer does not have the MSRP and destination charge, the MNLARS user must use a reputable pricing guide to determine the vehicle's base value. The pricing guides provide base-value information at the vehicle's style or trim level, not the VIN descriptor level. The MNLARS user may not know which styles or trims share the same VIN descriptor, potentially resulting in assigning an incorrect base-value amount.

Updated vehicle information. Vehicle manufacturers provide updated vehicle information to DPS, which can result in lower base-value amounts for certain vehicles. As a result, the lowest base value for a VIN descriptor could change over time.[11] DPS does not adjust the base value of previously registered vehicles, so two vehicles with the same VIN descriptor could be assigned different base values depending on when the owner registers the vehicle.

Input errors. MNLARS users manually enter a vehicle's VIN into the system, and this manual process can result in a VIN being entered incorrectly. MNLARS users can also manually enter a vehicle's base value, which can similarly result in input errors.

Change of ownership. DPS staff told us that a known MNLARS error incorrectly changed a vehicle's base value, in certain circumstances, when the customer requested a change of ownership. DPS staff said they developed procedures instructing MNLARS users to correct the vehicle's base value when such a change occurred.[12] However, the MNLARS user did not always correct this error.

RECOMMENDATION

The Department of Public Safety should correct a VIN descriptor's base value once it receives updated information from the vehicle manufacturer.

DPS should adjust its process to correct a VIN descriptor's base value once it receives the MSRP and destination charge information from the manufacturer. This would ensure that

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[11] DPS would never increase the base value for a vehicle that has already been registered in the state, because this could cause the registration tax to increase, which is prohibited by *Minnesota Statutes* 2017, 168.013, subd. 1a(j).

[12] We were unable to obtain a copy of the procedure from DPS or locate this procedure on DPS's website.

all vehicles with the same VIN descriptor have the same base value recorded in the system and all owners with the same vehicle are charged the same tax going forward. Currently, DPS staff could make this adjustment only if it results in a lower base value for a given VIN descriptor. DPS may need to work with the Legislature to enable the department to make changes that result in a higher base value for a given VIN descriptor, since a higher base value will typically result in a higher registration tax.

Variable Registration Tax

Minnesota imposes a variable registration tax—calculated using a vehicle's base value and age—on newer vehicles.[13] "Newer" vehicles are those that are ten years old or younger. Many of these newer vehicles were registered in Minnesota before July 24, 2017, when MNLARS was launched. Other new vehicles have been newly registered in MNLARS. Below, we discuss our findings regarding the variable registration tax charged on vehicles registered pre-MNLARS and on vehicles newly registered in MNLARS.

Vehicles Registered in Minnesota Pre-MNLARS

DPS transferred into MNLARS from DPS's legacy system information about vehicles registered and titled in Minnesota prior to July 24, 2017. As previously discussed, once established in the system, the base value stays with the vehicle for the remainder of the vehicle's life.[14]

We examined a sample of transactions for vehicles registered in Minnesota prior to the MNLARS rollout to determine whether MNLARS (1) correctly transferred vehicle base values from the legacy system and (2) calculated the registration tax correctly. We did not determine whether the base value established in the pre-MNLARS system was accurate. Our testing population contained 1,266,873 vehicles (including 1,281,936 transactions), and we selected 300 vehicles (including 458 transactions) for detailed testing.[15]

For some vehicles registered prior to July 2017, MNLARS used incorrect base values and had incorrect registration tax charges.

Exhibit 1.6 outlines the results of our sample tests and shows our estimates of inaccuracies in the population. In sum, 32 of the 458 transactions we reviewed used an incorrect base value, and 28 of the transactions had an incorrect registration tax. The incorrect registration tax amounts resulted in 16 customers being overcharged a total of $453, and 6 customers being undercharged a total of $79. For the remaining six transactions, the customers paid the correct registration tax, despite having an incorrect amount recorded in MNLARS.

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[13] *Minnesota Statutes* 2017, 168.013, subds. 1 and 1a.

[14] This is true, unless exceptions apply, such as when a vehicle owner, dealer, or deputy registrar contacts DPS and provides proof of a different base value.

[15] Certain vehicles had more than one transaction due to registration tax corrections or updated vehicle information.

Exhibit 1.6: Base-Value and Registration Tax Inaccuracies in MNLARS for Vehicles Registered before July 2017

	Inaccuracies Found in a Sample of 458 Transactions[a]		Estimated Range of Inaccuracies in the Population of 1,281,936 Transactions[b]	
	Number of Transactions	Percentage	Number of Transactions	Percentage
Incorrect base value used	32	2%	6,025 to 64,097	0.47% to 5%
Registration tax is not correct	28	5%	38,458 to 128,194	3% to 10%

[a] We sampled vehicles at different rates, depending on whether they had one or multiple transactions recorded in MNLARS. This required us to conduct weighted analysis to calculate the percentage of inaccuracies.

[b] Based on the design of our sample, we are 95 percent confident that the actual amount of inaccuracies is within the estimated range.

SOURCE: Office of the Legislative Auditor, based on a random sample of 300 vehicles and statistical generalization of inaccuracies to the total population.

For 32 transactions we tested, the **vehicle base value incorrectly changed**. These base-value changes occurred due to a known MNLARS error associated with changing ownership of a vehicle.[16] The base value changed from its original amount to the most current third-party vendor base value listed in MNLARS. We expected the vehicle's base value to remain unchanged, because DPS staff told us that a vehicle's base value should stay the same for the life of the vehicle once assigned.

Of the 32 transactions where we noted an incorrect change to base value, MNLARS undercharged the registration tax for five customers in amounts ranging from $1 to $39. In one of the transactions, MNLARS overcharged a customer's registration tax by $55. For the remaining 26 transactions where vehicles' base values incorrectly changed, there was no effect on registration tax paid; however, if these base values are not corrected, those customers may be charged incorrect amounts in the future.

In four transactions we tested, the **vehicle owner paid registration tax twice for the same vehicle during the same registration period**. These four errant transactions resulted from two user errors, one MNLARS error, and an error where DPS staff were unable to definitively explain what occurred. These errors resulted in customer overcharges of $248, $12, $70, and $57, respectively.

Finally, for 12 other transactions, the **customer paid the incorrect vehicle registration tax**. The 12 instances occurred for different reasons. In 11 of these transactions, MNLARS overcharged customers for their registration tax by $1. In another transaction, MNLARS calculated the registration tax using an updated base value, rather than the base value already in the system. As a result, MNLARS undercharged the customer by $10. DPS staff could not explain why either of these types of errors occurred.[17]

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[16] According to DPS staff, this error has not yet been corrected in MNLARS.

[17] In the remaining six transactions, MNLARS did not record the correct registration tax for unknown reasons. However, customers paid the correct registration tax according to the registration renewal notice received in the mail.

Vehicles Newly Registered in MNLARS

System users enter into MNLARS vehicles not previously registered or titled in Minnesota. Some of these vehicles are newly purchased, and others are purchased from another state or jurisdiction. MNLARS uses the most updated base value, from either the manufacturer or third-party vendor, to calculate the registration tax.

We examined a sample of vehicle registration transactions for vehicles newly registered in MNLARS to determine whether (1) MNLARS was able to obtain the correct base value without system user intervention, (2) the final base value was correct, and (3) MNLARS correctly calculated the registration tax. We considered the vehicle's base value to be correct if it matched the manufacturer's lowest base-value amount, or in cases where MNLARS did not have the manufacturer's information, it matched the base-value amount on registration documents. We considered registration tax correct when the amount in MNLARS equaled our expected tax amount. The population contained 234,347 vehicles (including 239,153 transactions), and we selected 300 vehicles (including 310 transactions) for detailed testing.

Based upon our sample testing, we estimate that MNLARS:

- **Could not automatically retrieve the correct base value for between two-thirds and three-quarters of newly registered passenger vehicles.**

- **Did not have the correct base value for between 34 and 45 percent of newly registered passenger vehicles, even after system users intervened.**

- **Did not charge the correct registration tax for between 36 and 46 percent of newly registered passenger vehicles.**

Exhibit 1.7 recaps the results of our sample test and shows our estimates of inaccuracies in the population.

Exhibit 1.7: Base-Value and Registration Tax Inaccuracies for Vehicles Newly Registered in MNLARS

	Inaccuracies Found in a Sample of 310 Transactions[a]		Estimated Range of Inaccuracies in the Population of 239,153 Transactions[b]	
	Number of Transactions	Percentage	Number of Transactions	Percentage
Incorrect initial base value	217	72%	157,841 to 184,148	66% to 77%
Incorrect final base value	123	39%	81,312 to 107,619	34% to 45%
Incorrect registration tax	128	41%	86,095 to 110,010	36% to 46%

[a] We sampled vehicles at different rates, depending on whether the transactions occurred before or after an October 22, 2017, MNLARS system update. This required us to conduct weighted analysis to calculate the percentage of inaccuracies.

[b] Based on the design of our sample, we are 95 percent confident that the actual amount of inaccuracies is within the estimated range.

SOURCE: Office of the Legislative Auditor, based on a random sample of 300 vehicles and statistical generalization of inaccuracies to the total population.

As discussed previously, base value is made up of the manufacturer's suggested retail price excluding options (MSRP), and the shipping cost (destination charge). MNIT conducted a MNLARS system update on October 22, 2017, that changed the way base value is displayed in MNLARS. Prior to the update, system users could only see the base-value amount for the vehicle, and it was difficult to discern if the value contained both the MSRP and destination charge. After the update, system users could see the base-value amount broken out into the MSRP value and the destination charge value, and it was easy to determine whether the base value contained both components.

Our results showed statistically significant improvement in the accuracy of base value and registration tax after the system update occurred. For example, prior to the system update, we estimate that the final base value in MNLARS was incorrect for between 45 and 61 percent of registration transactions for vehicles newly registered in MNLARS. After the update, we estimate that the final base value in MNLARS was incorrect for between 22 and 36 percent of these transactions. Similarly, we estimate that the registration tax was incorrect for between 47 and 63 percent of these transactions prior to the system update; this rate dropped to between 24 and 39 percent after the update occurred.

In total, MNLARS was unable to automatically retrieve the correct base value for 217 of the 310 transactions we tested. For 206 of these transactions, the VIN descriptor had an MSRP value but did not have a destination charge value. For nine transactions, there were no base values listed in MNLARS for the VIN descriptor. For two transactions, MNLARS contained an incorrect MSRP and destination charge, but the system user overrode the base-value amount because a lower value was provided by the dealer.

Since the MNLARS records did not always contain both the MSRP and the destination charge, system users were often required to determine one of these charges and manually enter the amount into the system. Relying on a manual process increases the risk that users will enter an incorrect base value into the system.

System limitations and user input errors caused an incorrect base value for 123 of the 217 transactions for which MNLARS did not automatically retrieve the correct base value. For 118 of these 123 transactions, the base value did not include the destination charge component. Eighty of these transactions occurred prior to October 22, 2017, when MNIT updated MNLARS to separately show the MSRP and destination charge components of a vehicle's base value. The remaining 38 transactions with incorrect base values occurred after the system update.

For three transactions, MNLARS had multiple base values recorded for the VIN descriptor, and it appears MNLARS used the highest base-value amount. This is contrary to state law that requires DPS to assign the lowest base value to a given vehicle.[18] Finally, two transactions were system-user errors. In both cases, the user did not enter into MNLARS the proper base value from the vehicle registration forms.

Largely due to incorrect base values, MNLARS calculated an incorrect registration tax in 128 of the transactions we tested. For 118 of these transactions, MNLARS undercharged the registration tax because the destination charge was not included in the base-value amount. In 26 of these transactions, we independently determined the destination charge and found customers were undercharged between $2 and $26 in registration tax. For 92 of

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[18] *Minnesota Statutes* 2017, 168.013, subd. 1a(c).

these transactions, we could not calculate the registration tax variance because the destination charge was not in MNLARS.

We identified several different errors with the remaining ten transactions for which MNLARS calculated an incorrect registration tax. In four of these transactions, MNLARS overcharged the vehicle owner between $8 and $35 in registration tax. In four other transactions, MNLARS charged customers $1 extra in registration tax; DPS staff have been unable to explain why this error occurred.[19]

Base-Value Outliers

Based on our review of base values in MNLARS, we conducted an in-depth review of transactions involving select VIN descriptors. Within the population of vehicles newly registered in MNLARS, we identified 169 VIN descriptors with a base-value range of greater than $40,000 or with a minimum base value of less than $10,000. From among these 169 VIN descriptors, we identified specific vehicles with a base value of less than $10,000 or a base value that deviated by at least $20,000 from the average base value for that VIN descriptor. This resulted in 170 vehicles for further examination. OLA staff chose 50 of these vehicles to review and determine whether MNLARS (1) retrieved the correct base value and (2) calculated the correct registration tax.

For some passenger vehicles, MNLARS contained significantly inaccurate base values and incorrect registration tax charges.

We found that 46 of the 50 vehicles selected for an in-depth review had an incorrect base value; for 38 of these vehicles, MNLARS also had an incorrect registration tax. The registration tax was undercharged at least $7,368 for 32 of these vehicles, and overcharged $807 for the other 6 vehicles.

For 11 of these 38 vehicles, the errors were due to system users, rather than MNLARS itself. For example, the system user miscoded three of these vehicles as passenger vehicles instead of one-ton trucks. One-ton trucks use gross weight to calculate registration tax instead of base value. As a result, MNLARS overcharged these vehicle owners registration tax by $24, $32, and $34. For six additional vehicles, the system user entered an incorrect base-value amount, as highlighted in the box to the left.[20]

Sample Registration Tax Errors Due to MNLARS Users

Incorrectly used dealer base value

2018 Cadillac Escalade: Undercharged $538
- Base value recorded in MNLARS: $44,875
- Correct base value: $87,890

Entered gross weight as base value

2018 Chevrolet Silverado: Undercharged $505
- Base value recorded in MNLARS: $7,200
- MSRP: $47,625 (does not include the destination charge)

2018 Honda Odyssey: Undercharged $412
- Base value recorded in MNLARS: $4,359
- MSRP: $37,360 (does not include the destination charge)

Entered odometer reading as base value

2011 Chevrolet Avalanche: Overcharged $410
- Base value recorded in MNLARS: $151,140
- Correct base value: $50,260

2011 Infiniti G37: Overcharged $280
- Base value recorded in MNLARS: $102,902
- Correct base value: $37,525

2008 Jeep Grand Cherokee: Overcharged $27
- Base value recorded in MNLARS: $91,064
- Correct base value: $39,250

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[19] In the remaining two transactions, MNLARS undercharged one customer $18 in registration tax due to an incorrect base value, and undercharged another customer $11 in registration tax due to using outdated information.

[20] For two other vehicles, the system user did not enter the VIN correctly.

For 35 of the vehicles we selected for an in-depth review, DPS staff were unable to explain how the errors occurred. For example, for 18 of these vehicles, the base value was understated, but we could not determine why. For seven other vehicles, $99,999 was added to the base-value amount in MNLARS, but we do not know how. The changed base-value amount did not have an effect on this year's registration tax, but it will have an effect in future years if the value is not corrected.[21] For two vehicles, we were unable to verify the accuracy of the base value or the registration tax because MNLARS did not have any VIN information for the vehicles.[22]

Recommendations

Our tests related to new passenger vehicle registration transactions revealed several concerns, largely centering around incorrect base values in MNLARS and inaccurate registration tax charges. Our recommendations, therefore, center on correcting these two fundamental types of problems.

RECOMMENDATIONS

- **The Department of Public Safety should correct base-value amounts in MNLARS, so future registration transactions will be correct.**

- **The Department of Public Safety and the Legislature should work together to ensure all vehicle owners pay the correct amount of registration tax, regardless of previous transaction errors.**

Flat-Rate Registration Tax

As mentioned earlier in this chapter, vehicles ten years old or younger use base value to calculate the registration tax. In contrast, the registration tax for vehicles 11 years old or older is a flat $35, regardless of the vehicle's make or model.[23]

In this section, we discuss the accuracy of registration taxes processed in MNLARS for passenger vehicles with a model year older than 2008. Then we discuss possible reasons the transactions were inaccurate and the impact of these inaccuracies. The concerns we identify in this section are similar to concerns we have about other aspects of MNLARS. We present recommendations addressing these issues in Chapter 4.

Testing Methodology

For passenger vehicles with a model year older than 2008, we reviewed all transactions recorded as vehicle registration taxes in MNLARS through February 28, 2018. This included transactions for any dollar amount associated with vehicle registrations and

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[21] For example, if the 2018 Chevy Equinox in our sample had an additional $99,999 in its base value, it would have a registration tax in 2018 of at least $1,593; the registration tax should be $416 using the correct base value.

[22] Other errors include overstated base values (seven vehicles) and updated base values that were not saved (one vehicle).

[23] *Minnesota Statutes* 2017, 168.013, subd. 1a(a), (h), and (i).

registration renewals. We identified all transactions where the registration tax was not the expected $35.

Testing Results

In total, we tested 1,262,448 transactions totaling $44,363,294 for passenger vehicles older than ten years. Of the transactions we tested, 11,844 did not record $35 paid for registration tax. We noted 338 potential overcharges and 11,506 potential undercharges in the exceptions.

MNLARS system limitations and user errors caused some registration tax errors.

We asked DPS staff to review the variances we found for older passenger vehicles and explain why these discrepancies occurred. Due to the large quantity of variances we found, DPS reviewed only a subset of the passenger vehicle transactions. From the review, DPS staff identified several causes for the variances, including "non-use" periods, data-migration errors, and user errors. We discuss these causes and others in more depth below.

> **Approximately**
>
> # 99.1%
>
> **of vehicle registration renewals older than 2008 were for the expected amount.**

Vehicle Non-Use

A "non-use" period exists if a vehicle is never used during a given registration period. Customers are not required to pay registration tax if the vehicle was not used for the entire registration period. However, non-use must be in full years, so even if a customer uses the vehicle only once during a year, they must pay a full year of registration tax.

If a vehicle owner visits a title and registration office in 2018 to pay registration tax and did not pay 2017 tax, the owner is expected to pay the outstanding tax from 2017 and 2018 unless non-use existed. Vehicle owners who declare non-use must provide a statement affirming they did not use the vehicle in the previous period.

DPS staff attributed many of the vehicle registration tax exceptions we identified to owner non-use. DPS staff told us that in these cases, the state collected the correct amount of registration tax because the owner declared proper non-use. However, we were unable to verify non-use due to limitations in MNLARS.

During the scope of our audit, if a customer paid $70 for two years of vehicle registration tax between January 1, 2014, and December 31, 2017, we could not determine for which two years the customer paid and for which two years the customer claimed non-use.[24] In June 2018, MNIT and DPS updated MNLARS to properly display non-use information. Now, when a system user reviews a vehicle's history in MNLARS it specifically shows the paid periods of registration and non-use periods. This change should help DPS staff confirm and verify instances of non-use going forward.

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[24] $70 is equal to two years of $35 registration tax for vehicle model years older than 2008.

Data-Migration Errors

For some registration transactions we reviewed, the vehicle records migrated from the previous record-keeping system to MNLARS with incorrect information. For example, some vehicle records migrated to MNLARS with the incorrect registration expiration year, such as January 31, 2017, instead of January 31, 2018. When the system user attempted to correct the expiration year on record, MNLARS charged $3 for one month of registration even though no registration tax was due. DPS staff identified examples of this in the exceptions we provided to the agency. DPS staff told us they fix these errors as they are identified.

There were also some errors related to transferring the type of vehicle into MNLARS. For example, when information about certain trailers transferred into MNLARS, they were recorded as passenger vehicles. DPS staff told us they update incorrect vehicle types as they are identified.

Vehicle Class Conversions

We identified some errors when MNLARS converted vehicles from one class type to another. For example, when a vehicle reaches a certain age, the owner may consider converting their passenger vehicle to a collector vehicle.[25] However, when an owner attempted to convert the vehicle type, MNLARS did not correctly calculate the registration tax. As a result, customers either paid the wrong amount of tax, or the system user had to manually correct the payment amount.

User Errors

Finally, some exceptions occurred because MNLARS users did not correctly enter or review the transactions before completion. We observed two general errors:

- Users entered the incorrect registration tax amount.

- Users did not verify the number of months used in the registration calculation.

Consequences

As discussed above, we identified a number of transactions where the actual registration tax did not match the expected registration tax for passenger vehicles 2007 and older. Many of these exceptions resulted in customers being charged the wrong amount for their vehicle registration tax. More specifically, we estimate that:

- MNLARS registration tax potential overcharges totaled $5,889 for passenger vehicles older than 2008.

- MNLARS registration tax potential undercharges to customers totaled up to $578,360 for passenger vehicles older than 2008.[26]

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[25] Collector vehicle registration is outlined in *Minnesota Statutes* 2017, 168.10.

[26] MNIT and DPS staff attributed $313,848 of these undercharges to non-use registration periods. OLA did not verify this amount.

Chapter 2: Other Registration-Related Taxes

In addition to imposing registration taxes on passenger vehicles, as discussed in Chapter 1, MNLARS processes two other registration-related taxes. First, Minnesota imposes registration taxes on other "nonpassenger" vehicles, such as trucks, tractors, and recreational vehicles. Second, Minnesota gives counties the option to impose an additional registration-related tax, called "wheelage" tax, on most vehicles (passenger or nonpassenger) that must be registered.[1]

In this chapter, we discuss these two other types of registration-related taxes. We first discuss nonpassenger vehicle registration taxes, explain how these taxes are calculated, and identify areas of concern and recommendations for improvement. Next, we discuss wheelage tax and similarly identify areas of concern and recommendations for improvement. Finally, we identify and discuss an area of concern regarding how MNLARS has incorrectly charged customers who are identified as being on active military service. We present recommendations regarding broader concerns about MNLARS in Chapter 4.

Nonpassenger Vehicle Registration Tax

Minnesota statutes require the Department of Public Safety (DPS) to impose vehicle registration taxes on several types of nonpassenger motor vehicles.[2] For some types of nonpassenger vehicles, the statutes require *variable* vehicle registration tax rates based on the gross weight of the vehicle. Examples of these vehicles include trucks, tractors and one-ton pickup trucks, self-propelled and towed recreational vehicles, farm trucks, and trailers. Statutes require *flat* vehicle registration tax rates for other types of nonpassenger vehicles, such as motorcycles and school buses.

In this section, we first discuss our findings regarding MNLARS transactions related to variable registration tax rates. Next, we discuss our findings regarding MNLARS transactions related to flat registration tax rates. In both sections, we identify areas of concern and recommendations for improvement.

Variable Tax Rates

We identified about 421,000 transactions in MNLARS between July 24, 2017, and February 28, 2018, where vehicles were charged registration tax based on gross weight. DPS collected a total of about $43.7 million for these charges. We decided to limit our testing to the five types of vehicles with the highest amounts of vehicle registration tax receipts, which totaled nearly $43.1 million. Exhibit 2.1 displays the vehicle registration tax rates for the five types of vehicles tested and the amounts of tax revenue DPS collected for each vehicle type.

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[1] *Minnesota Statutes* 2017, 163.051, subd. 1(a) and (c).

[2] *Minnesota Statutes* 2017, Chapter 168, imposes vehicle registration taxes on all motor vehicles except those specified as exempt in 168.012.

Exhibit 2.1: Variable Registration Tax Rates and Receipts for Nonpassenger Vehicles, July 24, 2017, through February 28, 2018

Nonpassenger Vehicle	Percentage of Minnesota Base-Rate Schedule[a]	Minimum Tax	Receipts
Trucks, Tractors, and One-Ton Pickups	100%	$120	$28,249,389
Farm Trucks	45% / 60%	$35 / None	6,696,199
Trailers	30% or 100%	None	5,411,293
Self-Propelled Recreational Vehicles (RVs)	100%	$20	1,616,136
Towed Recreational Vehicles	30%	$5	1,099,758
Total			$43,072,775

[a] *Minnesota Statutes* 2017, 168.013, subd. 1(e)(a), establishes the Minnesota base-rate schedule used to determine the variable vehicle registration tax rate based on gross weight. The schedule includes different rates for 20 separate intervals of gross weights in pounds ranging from 0 to 80,000. *Minnesota Statutes* 2017, 168.013, subd. 1(e)(c), extends the schedule for vehicles with a gross weight exceeding 80,000 pounds by $50 for each additional 2,000 pounds or fraction thereof.

SOURCE: Office of the Legislative Auditor.

Minnesota statutes establish the base-rate schedule used to determine the vehicle registration tax rate based on gross weight.[3] We used this base-rate schedule and MNLARS data to independently calculate the registration tax that should have been charged for each registration transaction. We compared our calculated charges to the actual charges recorded in MNLARS to determine the accuracy of those transactions.

More than 97 percent of the actual charges recorded in MNLARS for nonpassenger vehicle registration based on gross weight matched the expected amounts. The actual charges for the 9,957 transactions that did not match totaled $2,271,609, instead of the expected total of $4,106,029. For 7,802 of these transactions, the actual charges were less than expected by $1,965,275. For the remaining 2,155 transactions, the actual charges were more than expected by $130,855. Exhibit 2.2 displays the results of our testing by vehicle type.

Approximately

97.6%

of registration transactions for vehicles charged variable tax rates based on gross weight were accurate based on MNLARS data.

We did not perform detailed testing of the 9,957 exceptions to determine whether the actual charges were inaccurate; however, we did provide the exceptions to DPS staff. Based on discussions of those exceptions with DPS staff, we identified several potential causes for the variances, including "non-use" registration periods and programming errors in MNLARS. We discuss these causes in more detail below.

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[3] *Minnesota Statutes* 2017, 168.013, subd. 1e(a).

Exhibit 2.2: Testing Exceptions for Nonpassenger Vehicles Charged Variable Registration Rates, July 24, 2017, through February 28, 2018

Nonpassenger Vehicle	Number of Transactions	Percentage of Transactions with Exceptions	Estimated Overcharges	Estimated Undercharges
Trucks, Tractors, and One-Ton Pickups[a]	115,613	5.75%	$121,658	$1,555,085
Farm Trucks[a]	30,307	4.34%	4,095	363,683
Trailers[a]	171,218	0.69%	2,123	39,667
Self-Propelled Recreational Vehicles (RVs)	13,947	3.03%	2,480	5,132
Towed Recreational Vehicles	77,411	0.51%	499	1,708
Total	408,496	2.44%	$130,855	$1,965,275

NOTES: This table represents exceptions between the actual registration amounts charged and the expected amounts we calculated based on MNLARS data. Based on discussions with Department of Public Safety staff and supplemental documentation, some exceptions may not represent actual errors.

[a] Registration tax amounts for vehicles exceeding 80,000 pounds included additional $50 fees for each 2,000-pound interval over 80,000 pounds. Our calculations of expected tax amounts discounted the additional fees by the applicable discount rates for each type of vehicle.

SOURCE: Office of the Legislative Auditor.

Heavy Vehicles

MNLARS applies inconsistent interpretations of state law regarding registration tax rates for nonpassenger vehicles exceeding 80,000 pounds.

Minnesota statutes establish registration tax rates based on gross weight for certain nonpassenger vehicles. The tax rates are segmented into 20 intervals that range from 0 to 80,000 pounds.[4] The statutes also add to the base-rate schedule an additional $50 for each 2,000-pound interval exceeding 80,000 pounds.[5] For trucks, tractors, and trailers, the statutes require registration tax equal to 100 percent of the rate in the base-rate schedule for the first eight years of a vehicle's life, and 75 percent of the rate in the base-rate schedule for subsequent years.[6] For farm trucks exceeding 57,000 pounds, the statutes require registration tax equal to 60 percent of the rate in the base-rate schedule for the first eight years of a vehicle's life, and 36 percent of the rate in the base-rate schedule for subsequent years.[7]

For older trucks and tractors exceeding 80,000 pounds, MNLARS applied the discount to the rate in the base-rate schedule only for the first 80,000 pounds, and included the full $50 for each 2,000-pound interval exceeding 80,000 pounds. Conversely, for farm trucks and

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[4] *Minnesota Statutes* 2017, 168.013, subd. 1e(a).

[5] *Minnesota Statutes* 2017, 168.013, subd. 1e(c).

[6] *Minnesota Statutes* 2017, 168.013, subds. 1d and 1e(i).

[7] *Minnesota Statutes* 2017, 168.013, subd. 1c.

older trailers, MNLARS applied the applicable discount to both the rate in the base-rate schedule for the first 80,000 pounds *and* the $50 for each additional 2,000-pound interval.

DPS and Minnesota IT Services (MNIT) staff told us that they intentionally programmed MNLARS to apply the applicable discounts to the additional fees for farm trucks exceeding 80,000 pounds, and not to apply the applicable discount to the additional fees for older trucks and tractors exceeding 80,000 pounds. For older trailers, they told us they intended to program MNLARS not to apply the applicable discount, but incorrectly programmed it to apply the discount.

DPS and MNIT staff told us that their rationale for the difference was that the additional fees were intended as a surcharge for heavier vehicles that cause more wear and tear on roads, and that the surcharge for farm trucks should be discounted because they operate primarily in fields instead of on roads. However, the statutes do not include any language that supports this rationale. Furthermore, the law does not allow DPS to treat different heavy vehicle types differently with respect to the $50 fees for additional weight. The law simply states, "For each vehicle with a gross weight in excess of 80,000 pounds an additional tax of $50 is imposed for each ton or fraction thereof in excess of 80,000 pounds....."[8]

As noted in Exhibit 2.2, we applied the applicable discounts to the $50 fees for each additional 2,000-pound interval in our calculations of expected tax amounts for each type of heavy vehicle. Exhibit 2.3 displays the exceptions we calculated specifically for these heavy vehicles. The exhibit also displays the results if the expected tax amounts are calculated without discounting the additional fee.

Older Self-Propelled Recreational Vehicles (RVs)

MNLARS did not accurately calculate vehicle registration tax for older RVs with gross weights of 4,500 pounds or less.

Minnesota statutes establish vehicle registration tax rates for RVs based on gross weight.[9] The statute sets the minimum tax at $20 for the first eight years of a vehicle's life, and either $15 (for vehicles 3,000 pounds or less) or $19 (for vehicles between 3,001 and 4,500 pounds) for the ninth and succeeding years. However, MNLARS calculated registration tax of $20 for all 189 of the transactions for older RVs with gross weights of 4,500 pounds or less that we tested, which resulted in overcharges totaling $353.

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[8] *Minnesota Statutes* 2017, 168.013, subd. 1e(c).

[9] *Minnesota Statutes* 2017, 168.013, subd. 1g(a) and (b).

Exhibit 2.3: Testing Exceptions for Heavy Nonpassenger Vehicles, July 24, 2017, through February 28, 2018

Expected Tax Amounts Calculated with Discounts Applied to the
$50 Fee for Each Additional 2,000-Pound Interval Exceeding 80,000 Pounds

Heavy Vehicle Type	Number of Transactions	Percentage of Transactions with Exceptions	Estimated Overcharges	Estimated Undercharges
Trucks and Tractors	1,611	84.36%	$93,845	$331,660
Farm Trucks	2,798	10.76%	2,433	142,756
Trailers	25	8.00%	0	894
Total	4,434	37.48%	$96,278	$475,310

Expected Tax Amounts Calculated without Discounts Applied to the
$50 Fee for Each Additional 2,000-Pound Interval Exceeding 80,000 Pounds

Heavy Vehicle Type	Number of Transactions	Percentage of Transactions with Exceptions	Estimated Overcharges	Estimated Undercharges
Trucks and Tractors	1,611	21.35%	$4,114	$352,306
Farm Trucks	2,798	100.00%	455	443,143
Trailers	25	56.00%	0	2,981
Total	4,434	71.18%	$4,569	$798,430

NOTES: This table represents exceptions between the actual registration amounts charged and the expected amounts we calculated based on MNLARS data. Based on discussions with Department of Public Safety staff and supplemental documentation, some exceptions may not represent actual errors.

SOURCE: Office of the Legislative Auditor.

Low-Weight Trailers

Some registration transactions for low-weight trailers were miscoded in MNLARS.

Minnesota statutes establish different registration tax rates for trailers based on gross weight.[10] For trailers exceeding 3,000 pounds, the tax rate is determined based on gross weight and the Minnesota base-rate schedule. For trailers weighing 3,000 pounds or less, the registration tax is a one-time $55 fee. Our testing identified 135 transactions for trailers 3,000 pounds or less with registration tax derived from the base-rate schedule instead of the flat one-time fee. These transactions undercharged registration tax by a total of $6,662. MNLARS contains separate codes for low-weight trailers and for trailers exceeding 3,000 pounds, and each of these transactions was miscoded as a trailer exceeding 3,000 pounds.

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[10] *Minnesota Statutes* 2017, 168.013, subd. 1d.

Vehicle Non-Use

Prior to a June 2018 upgrade, MNLARS did not clearly identify "non-use" registration periods.

A "non-use" registration period is when a vehicle is not used in Minnesota for a given period of time, such as when it is in storage or in disrepair. Minnesota statutes exempt from registration charges vehicles not used in Minnesota during an entire registration period (generally one year).[11] By law, a non-use exemption is granted "…only if the owner of the vehicle first files a verified written application with the registrar, correctly describing the vehicle and certifying that it has not been operated upon a public highway."[12] Since customers often wait to file non-use exemption applications until they register the vehicle for its return to active use, these registration transactions typically include both the new (active) and any prior (non-use) registration periods.

The data in MNLARS should differentiate active periods from non-use periods, but they did not. Without being able to identify non-use periods, we used all of a vehicle's registration periods recorded in MNLARS when we calculated expected tax amounts. Therefore, the exceptions we identified included any transactions that may have properly omitted non-use registration periods from the actual tax charges. For example, if a customer registered a vehicle for two 12-month registration periods, but only paid the $100 annual vehicle registration tax for one year and certified non-use for the other year, MNLARS data would show a 24-month registration period. Based on that data, we calculated an expected tax amount of $200 and identified the transaction as an exception.

DPS staff told us that they believe vehicle non-use explains several of our exceptions, which we acknowledge is possible. However, neither DPS nor OLA staff could confirm whether non-use explained any of the exceptions. To confirm owner non-use, we would need to obtain the non-use exemption applications from registrars. Since the June 2018 upgrade, we observed that MNLARS properly differentiated active registration periods from non-use periods.

Vehicle Class Conversion and Gross Weight Change Transactions

MNLARS did not clearly identify vehicle class conversion or gross weight change transactions.

Customers may initiate transactions that change a vehicle's registration from one type of vehicle to another, or that change the registered gross weight of a vehicle. For these types of transactions, the transaction amount represents the difference between the registration tax for the new class or weight from the transaction date through the end of the registration period, and the registration tax previously paid for the period from the transaction date through the end of the registration period. That difference could result in additional registration tax owed by the customer, or in a refund of registration tax due to the customer.

MNLARS data did not clearly differentiate these types of transactions from annual registration tax transactions. Without being able to identify vehicle class conversion or

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[11] *Minnesota Statutes* 2017, 168.012, subd. 7.

[12] *Ibid*.

gross weight change transactions, we calculated expected registration tax amounts based on the entire registration period. Therefore, the exceptions we identified included any vehicle class conversion or gross weight change transactions that may have accurately charged or refunded customers based on registration changes.

After discussions with DPS and MNIT staff and upon further analysis, we determined that about 57 percent of our exceptions for trucks, tractors, and one-ton pickups and 47 percent of our exceptions for farm trucks were charged for class conversion or gross weight changes.[13] We also determined that these types of transactions accounted for about 69 percent of our estimated undercharges for trucks, tractors, and one-ton pickups and about 65 percent of our estimated undercharges for farm trucks.[14] However, identifying the exceptions that were charged for vehicle class conversion or gross weight changes does not confirm the accuracy of those transactions. We would need to review each individual transaction and relevant prior registration transactions for each vehicle to determine if accurate.

RECOMMENDATIONS

- **The Department of Public Safety should work with Minnesota IT Services to ensure MNLARS is programmed to accurately calculate vehicle registration tax for heavy vehicles based on a consistent interpretation of state law.**

- **The Department of Public Safety and the Legislature should work together to clarify state law regarding vehicle registration tax rates for heavy vehicles.**

- **The Department of Public Safety should work with Minnesota IT Services to ensure MNLARS is programmed to accurately calculate vehicle registration tax for older self-propelled recreational vehicles with gross weights of 4,500 pounds or less.**

- **The Department of Public Safety should work with Minnesota IT Services to establish controls in MNLARS to prevent system users from miscoding registration tax transactions for low-weight trailers.**

- **The Department of Public Safety should develop procedures to monitor the accuracy of variable-rate vehicle registration tax transactions for nonpassenger vehicles, and to initiate corrections and system enhancements as necessary.**

Flat Tax Rates

We identified about 164,000 vehicle registration tax transactions in MNLARS for nonpassenger vehicles that were charged flat rates, totaling about $2.5 million between July 24, 2017, and February 28, 2018. Exhibit 2.4 displays the vehicle registration tax rates for vehicles charged flat rates and the amounts DPS collected for each type of vehicle.

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[13] These transactions included $3 fees for class conversion or gross weight change, which were not included in our analysis of registration tax.

[14] Exhibit 2.2 displays the estimated undercharges for our testing exceptions.

Exhibit 2.4: Vehicle Registration Flat Tax Rates and Receipts, July 24, 2017, through February 28, 2018

Nonpassenger Vehicle Type	Tax Rate	Frequency	Receipts
Utility Trailers	$55	One-time	$ 955,734
Motorcycles	$10	Annual	933,176
Tax-exempt Vehicles[a]	$5[a]	Annual	370,567
School Buses	$25	Annual	181,105
Collector Cars	$25	One-time	71,875
Mopeds	$6	Annual	35,031
Classic Motorcycles	$10	One-time	2,270
Intracity Buses	$2	Annual	123
Total			$2,549,881

[a] *Minnesota Statutes* 2017, 168.012, subd. 1(a), exempts from vehicle registration tax, with certain limitations, vehicles owned by the federal or state government, or any political subdivision; owned by educational institutions; used solely in driver education programs; owned by nonprofit charities; owned by ambulance services; and owned by commercial driving schools. *Minnesota Statutes* 2017, 168.012, subd. 1c, establishes an annual administrative fee of $5 for tax-exempt vehicles, paid biennially ($10 per biennium).

SOURCE: Office of the Legislative Auditor.

We used MNLARS data and the vehicle registration flat tax rates to independently calculate the registration tax that should have been charged for each registration transaction. We compared our calculated charges to the actual charges recorded in MNLARS to determine the accuracy of those transactions.

More than 99 percent of the actual flat-rate registration charges in MNLARS for nonpassenger vehicles matched the expected amounts. The actual charges for the 1,108 transactions that did not match totaled $9,493, instead of the expected total of $27,056. For 976 of these transactions, the actual charges were less than expected by $19,016. For the other 132 transactions, the actual charges were more than expected by $1,453. Exhibit 2.5 displays the results of our testing by vehicle type.

> **Approximately**
>
> **99.3%**
>
> **of registration transactions for vehicles charged flat tax rates were accurate based on MNLARS data.**

We did not perform detailed testing of the 1,108 exceptions to determine whether the actual charges were inaccurate; however, we did provide the exceptions to DPS staff. Based on discussions of those exceptions with DPS staff, we identified several potential causes, including non-use situations (as discussed earlier in this chapter), and others largely resulting from programming errors in MNLARS.

Exhibit 2.5: Testing Exceptions for Nonpassenger Vehicles Charged Flat Registration Rates, July 24, 2017, through February 28, 2018

Nonpassenger Vehicle	Number of Transactions	Percentage of Transactions with Exceptions	Estimated Overcharges	Estimated Undercharges
Motorcycles	92,270	0.16%	$ 971	$ 1,080
Tax-exempt Vehicles	37,939	0.25%	317	2,795
Utility Trailers	17,430	0.48%	75	2,991
School Buses	7,657	9.85%	24	11,919
Mopeds	5,714	0.14%	42	6
Collector Cars	2,883	0.28%	0	200
Classic Motorcycles	229	0.87%	0	20
Intracity Buses	52	21.15%	24	5
Total	164,174	0.67%	$1,453	$19,016

NOTES: This table represents exceptions between the actual amounts charged and the expected amounts we calculated based on MNLARS data. Based on discussions with Department of Public Safety staff and supplemental documentation, some exceptions may not represent actual errors.

SOURCE: Office of the Legislative Auditor.

School Buses

MNLARS inappropriately prorated vehicle registration tax for school buses.

Minnesota statutes do not allow vehicle registration tax for school buses to be prorated, stating that "…school buses…shall be taxed during each year of the vehicle life of such bus the amount of $25."[15] We identified 625 transactions for school buses where MNLARS inappropriately prorated the vehicle registration tax for a partial year. The total undercharge for those transactions was $7,739. DPS staff told us that a MNLARS defect caused the errors and that a February 2018 upgrade fixed the defect.[16]

Motorcycles

MNLARS incorrectly calculated vehicle registration tax for a certain type of motorcycle.

Our exceptions included five transactions for motorcycles with vertical license plates that charged customers $131 for registration tax instead of the $10 motorcycle rate, resulting in overcharges totaling $595. DPS staff told us that this type of motorcycle had a unique vehicle class code in the pre-MNLARS vehicle registration system that did not properly

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[15] *Minnesota Statutes* 2017, 168.013, subd. 18.

[16] Because the scope of our audit ended on February 28, 2018, this error was present in the transactions we examined. We did not confirm whether the February 2018 upgrade to MNLARS fixed this defect.

convert to the motorcycle class code in MNLARS. DPS staff also told us that a February 2018 upgrade fixed the defect.[17]


RECOMMENDATION

The Department of Public Safety should develop procedures to monitor the accuracy of flat-rate registration tax transactions for nonpassenger vehicles, and initiate corrections and system enhancements as necessary.

County Wheelage Tax

As mentioned earlier, Minnesota statutes authorize counties to levy an annual "wheelage" tax on most motor vehicles subject to vehicle registration taxes.[18] The statutes authorized a tax rate of $10 from 2014 through 2017, and up to $20 as of January 1, 2018.[19] As shown in Exhibit 2.6, 53 of Minnesota's 87 counties assessed an annual wheelage tax in 2018 at rates of either $10, $15, or $20. Minnesota statutes require DPS to distribute wheelage tax revenue to the appropriate county, and statutes require counties to deposit those tax receipts in the county road and bridge fund.[20]

Exhibit 2.6: County Wheelage Tax Rates, 2018
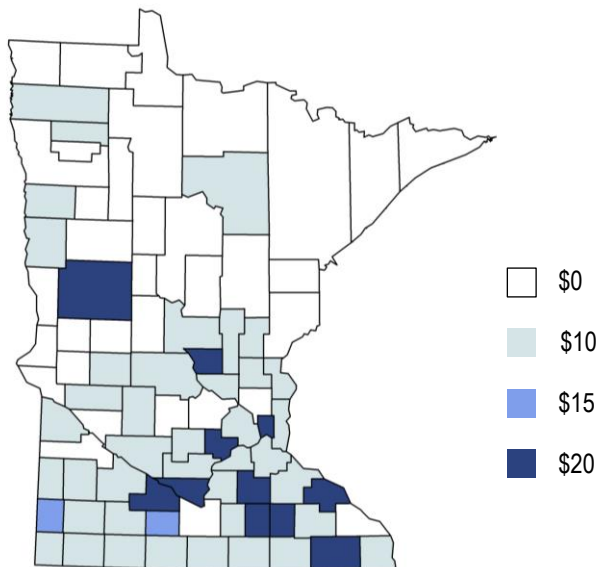
SOURCE: Office of the Legislative Auditor.

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[17] Similar to the error related to prorated registration tax for school buses, we did not confirm whether the February 2018 upgrade to MNLARS fixed the coding defect related to motorcycles with vertical license plates.

[18] *Minnesota Statutes* 2017, 163.051, subd. 1(a) and (c). The statutes exempt motorcycles, motorized bicycles, and motorized foot scooters from wheelage tax. *Minnesota Statutes* 2017, Chapter 168, imposes vehicle registration taxes on all motor vehicles except those specified as exempt, such as vehicles owned by the federal government, educational institutions, nonprofit charities, and ambulance services.

[19] *Minnesota Statutes* 2017, 163.051, subd. 1(b)(1) and (2).

[20] *Minnesota Statutes* 2017, 163.051, subds. 3 and 4.

Testing Methodology and Results

Between July 24, 2017, and February 28, 2018, there were nearly 2.2 million wheelage tax transactions in MNLARS, totaling about $23.5 million. We used MNLARS data and county wheelage tax rates to independently calculate the county wheelage tax that should have been charged for each registration transaction. We compared our calculated charges to the actual charges recorded in MNLARS to determine the accuracy of those transactions.

More than 99 percent of the actual wheelage tax charges in MNLARS matched the expected amounts, as shown in Exhibit 2.7. The actual charges for the 14,362 transactions that did not match totaled $177,185, instead of the expected total of $328,000. For 13,865 of these transactions, the actual charges were less than expected by $155,620. For the other 497 transactions, the actual charges were more than expected by $4,805.

Approximately

99.3%

of county wheelage tax transactions were accurate based on MNLARS data.

Exhibit 2.7: County Wheelage Tax Exceptions, July 24, 2017, through February 28, 2018

Type of Transaction	Number of Transactions	Percentage of Transactions with Exceptions	Estimated Overcharges	Estimated Undercharges
County Wheelage Tax	2,169,779	0.66%	$4,805	$155,620

NOTES: This table represents exceptions between the actual amounts and the expected amounts we calculated based on MNLARS data. Based on discussions with Department of Public Safety staff and supplemental documentation, some exceptions may not represent actual errors.

SOURCE: Office of the Legislative Auditor.

We did not perform detailed testing of the 14,362 exceptions to determine whether the actual charges were inaccurate; however, we did provide the exceptions to DPS staff. Based on discussions with DPS staff, we identified several potential causes, including non-use situations (discussed earlier in this chapter), transaction timing, and long registration periods.

Transaction Timing

The Department of Public Safety did not enter new county wheelage tax rates into MNLARS on a timely basis.

Each year, county boards decide whether to levy county wheelage tax and determine the tax rate. Minnesota statutes require counties to provide their wheelage tax rate for a calendar year to DPS by August 1 of the preceding year.[21] For 2018, 13 counties increased their wheelage tax rates and 1 county discontinued its wheelage tax. DPS staff told us that they entered the new 2018 rates into MNLARS on November 9, 2017.

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[21] *Minnesota Statutes* 2017, 163.051, subd. 2.

The wheelage tax a customer owes is based on the rate as of the start date of the registration period. Transactions for registration periods beginning in January 2018 should have used the 2018 wheelage tax rates; however, transactions for registration periods beginning in January 2018 that were processed before November 9, 2017, used the 2017 rates. As a result, some customers in counties with increased 2018 rates paid less than they should have, while some customers in the county that discontinued its wheelage tax for 2018 paid more.

The exceptions we identified included 2,757 transactions for the 13 counties with wheelage tax rate increases in 2018, and 101 transactions for the county that discontinued its wheelage tax in 2018. These exceptions were for registration periods that began in 2018 but had transaction dates prior to November 9, 2017. The total undercharge for these transactions was $27,435, and the total overcharge was $1,010.

DPS staff told us that the department plans to enter county wheelage tax rate changes into MNLARS by November 1 each year. DPS staff also told us that it will continue to be possible for owners to register their vehicles prior to November 1 for periods starting in January or later. As a result, MNLARS will continue to charge some customers an incorrect county wheelage tax amount based on the timing of the registration transactions.

Long Registration Periods

In certain cases, MNLARS improperly recorded registration periods that exceeded 12 months.

DPS staff told us that inaccurate registration period data in MNLARS caused some of our exceptions, and that the actual wheelage tax charged was accurate. Specifically, department staff told us that MNLARS did not accurately process online registration renewals when the vehicle's registration period recorded in the pre-MNLARS system was greater than 12 months.[22] When the customer renewed the vehicle registration online through MNLARS, the system recorded the registration period for the same length as the previously recorded registration period, instead of 12 months. That longer registration period did not affect the wheelage tax charged, but it did affect the *expected* wheelage tax we calculated. In other words, we identified transactions with these circumstances as exceptions when they were likely accurate.

DPS staff told us they requested a fix of this system flaw, and that as long as this problem persists, the DPS data team will correct these errors when identified. Uncorrected errors could improperly benefit customers by extending the end date of their vehicles' registration periods.

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[22] When a customer purchases a used vehicle from a dealer, they may have a registration period that exceeds 12 months. If the used vehicle's current registration period is unpaid, the purchaser is required to pay a prorated portion of the registration tax for that period, from the date of purchase through the end of the period. If the purchaser also chooses to pay the vehicle registration tax for the subsequent registration period at the same time, the registration periods are combined and exceed 12 months.

RECOMMENDATIONS

- **The Department of Public Safety should enter county wheelage tax rate changes into MNLARS on a more timely basis.**

- **The Department of Public Safety should prevent transactions for registration periods starting in subsequent calendar years until after it updates county wheelage tax rates in MNLARS.**

- **The Department of Public Safety should correct the registration periods in MNLARS that incorrectly exceeded 12 months.**

- **The Department of Public Safety should develop procedures to monitor the accuracy of county wheelage tax transactions, and to initiate corrections and system enhancements as necessary.**

Active Military Service

Minnesota statutes exempt individuals from vehicle registration tax and county wheelage tax while engaged in active military service, and for 90 days immediately following that service.[23] The MNLARS code for active military service is supposed to prevent the system from charging these individuals vehicle registration tax and county wheelage tax.

MNLARS inappropriately charged vehicle registration tax and county wheelage tax to some customers who were engaged in active military service.

We identified 363 transactions where customers coded as being in active military service in MNLARS were inappropriately charged either vehicle registration tax or county wheelage tax, or both. Those transactions totaled $19,336 in vehicle registration tax and $3,525 in county wheelage tax. Exhibit 2.8 displays the results of our review of transactions that included the active military service code.

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[23] *Minnesota Statutes* 2017, 168.031, exempts individuals from vehicle registration tax while engaged in active military service, provided the vehicle "…is not operated on a public highway within the state during the requested period of exemption, except by the owner while on furlough or leave of absence from the military." *Minnesota Statutes* 2017, 163.051, subd. 1(a), authorizes counties to levy wheelage tax on vehicles subject to vehicle registration tax under Chapter 168.

Exhibit 2.8: Testing Exceptions for Transactions with the Active Military Service Code, July 24, 2017, through February 28, 2018

Tax Type	Number of Transactions with the Active Military Service Code	Percentage of Transactions with the Active Military Service Code Inappropriately Charged Tax	Overcharges
Vehicle Registration Tax	1,308	9.48%	$19,336
County Wheelage Tax	327	100.00%	3,525
Total			$22,861

NOTES: MNLARS transactions that included the active military service code included a line item for vehicle registration tax, which was $0 for 90.52 percent of the transactions. Those transactions only included a line item for county wheelage tax if the tax was charged. For 239 transactions, the vehicle registration tax line item amount was $0 but county wheelage tax was charged. For 88 transactions, both vehicle registration tax and county wheelage tax was charged.

SOURCE: Office of the Legislative Auditor.

RECOMMENDATIONS

- **The Department of Public Safety should refund vehicle registration tax and county wheelage tax collected from customers that qualified for the active military service exemption.**

- **The Department of Public Safety should work with Minnesota IT Services to ensure MNLARS is programmed to effectively prevent vehicle registration tax and county wheelage tax from being charged for transactions that include the active military service code.**

Chapter 3: License Plate and Title Transactions

In Minnesota, all motor vehicles are required to have at least one license plate.[1] Vehicle owners must pay a fee when they are first issued a license plate (when the vehicle is initially registered in the state) and for subsequent license plate replacements. Similarly, in Minnesota, all vehicles that are required to be registered must have a valid title.

In this chapter, we discuss MNLARS transactions related to license plates and titles. For both of these transaction types, error rates in MNLARS were relatively low. Nevertheless, our testing revealed errors related to specific types of transactions. We first discuss license plate transactions, the errors we found, and recommendations for improvement. Next, we discuss title-related transactions and present our associated findings and recommendations. The recommendations we present in this chapter are specific to license plate and title transactions; in Chapter 4, we present recommendations addressing broader concerns about MNLARS.

License Plates

Minnesota offers standard and disability license plates for passenger vehicles, as well as many "special design" plates, such as for veterans, firefighters, or law enforcement personnel. Certain special design plates require contributions to special causes, such as colleges or critical habitat. Minnesota also offers special license plates for collector cars and motorcycles.

In addition to license plates for passenger vehicles, Minnesota has specific plates and fees for other types of vehicles, such as trailers, commercial and noncommercial trucks, recreational vehicles, motorcycles and mopeds, farm trucks, limousines, commuter vans, and buses. In total, state law authorizes more than 1,200 different types of license plate fees and contributions.[2]

In this section, we present the different types of license plate fees authorized in Minnesota and discuss the accuracy with which MNLARS processed these transactions. We also discuss potential causes for the inaccurate transactions we found and the impact of these errors. At the end of this section, we present recommendations specific to improving MNLARS license plate transactions.

License Plates Examined

As part of our audit, we examined the accuracy of license plate fees recorded and processed in MNLARS. We reviewed 100 percent of the license plate transactions processed in MNLARS between July 24, 2017, and February 28, 2018. More specifically, we examined almost 841,000 license plate transactions, totaling more than $8.8 million. Standard

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[1] *Minnesota Statutes* 2017, Chapter 168. Depending on the type and age of a vehicle, owners are required to display one or two plates.

[2] *Minnesota Statutes* 2017, 168.12-168.1299.

passenger vehicle license plates accounted for more than 68 percent of these transactions. Exhibit 3.1 presents information about the errors we found and resulting incorrect charges by type of license plate transaction.

Exhibit 3.1: Dollar Value of MNLARS License Plate Transaction Errors, July 24, 2017, through February 28, 2018

Type of License Plate Transaction	Number of Transactions	Percentage of Transactions with Errors	Estimated Overcharges	Estimated Undercharges
Standard, Passenger	576,126	0.01%	$132	$ 19
Standard, Nonpassenger	84,175	0.04%	77	301
Special Designs	48,991	0.09%	120	478
Contributions	129,158	1.39%	3	17,940
Government/Tax Exempt	2,199	2.41%	31	26
Total	840,649	0.23%	$363	$18,764

SOURCE: Office of the Legislative Auditor.

Overall, we found a small percentage of errors associated with license plate transactions. However, we identified some errors in transactions involving the State Parks and Trails special license plates.

Errors in transactions involving the State Parks and Trails special license plates resulted in insufficient funds directed to the Department of Natural Resources.

State Parks and Trails License Plates

Under Minnesota statutes, when a vehicle owner purchases a Minnesota State Parks and Trails license plate, the owner must make a contribution that is subsequently dedicated to the state parks and trails donation account.[3] In 2017, the Legislature increased the minimum contribution fee for the State Parks and Trails special license plate design from $50 to $60.[4] The fee increase was effective as of July 1, 2017, before the launch of MNLARS.[5] However, Minnesota IT Services (MNIT) and Department of Public Safety (DPS) staff did not immediately incorporate this increased fee into MNLARS and instead maintained the $50 contribution fee.

DPS discovered the coding error and, on July 7, 2017, instructed system users to continue charging $50. MNIT staff did not correct MNLARS until November 9, 2017. During these four months, MNLARS processed nearly 1,800 State Parks and Trails contribution transactions at $50, rather than $60. State statute directs all contribution fees for State Parks

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[3] *Minnesota Statutes* 2017, 168.1295, subd. 1.

[4] *Laws of Minnesota* 2017, chapter 93, art. 2, sec. 142, codified as *Minnesota Statutes* 2017, 168.1295, subd. 1.

[5] *Minnesota Statutes* 2017, 168.1295.

and Trails license plates to the Department of Natural Resources (DNR). The department lost $17,860 due to this programming error.[6]

Other License Plate Transactions

For license plate transactions other than those related to the State Parks and Trails plates, our testing identified a relatively small number of exceptions in MNLARS between actual and expected fees; these exceptions are detailed below.

- MNLARS undercharged customers $904 in 40 license plate transactions. Impound license plates and personalized license plates accounted for 82 percent of these charges. For five of these transactions, MNLARS charged customers $14 for personalized license plates that typically cost $100.[7] MNLARS contained insufficient information for us to research these transactions and determine whether there was an adequate explanation for the undercharges.

- MNLARS overcharged customers $363 in 36 license plate transactions; 62 percent of these transactions included personalized license plates and passenger license plates. For most of these errors, the system user charged the incorrect fee amount for a replacement plate.

- In 100 transactions, MNLARS data was incorrect, but the customer was charged the correct amount. For example, in 19 of these cases, the system user intended to charge the customer for two passenger license plates, but instead erroneously recorded the transaction as a charge for one passenger license plate. The user still assessed the correct fee for two passenger license plates.

In many of these exceptions, it appeared that the user selected the incorrect license plate fee in MNLARS or manually input the fee. In some instances, the users corrected the error; but when system users manually input information, it can increase the risk for errors.

RECOMMENDATION

The Department of Public Safety should assess the contribution deposits in the state parks and trails donation account and correct any outstanding errors.

Title Taxes and Fees

In Minnesota, all vehicles that are required to be registered must have a valid title. The title assists in proving ownership, transferring ownership, and reporting the sale of a vehicle. A title also contains information about security-lending agreements (liens) if an owner has outstanding debt on the vehicle, rather than owning the vehicle outright. DPS will not register or renew the registration of a vehicle unless the owner possesses a title.[8]

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[6] In June 2017, DPS staff notified DNR staff that MNLARS would not immediately incorporate the increased contribution rate.

[7] *Minnesota Statutes* 2017, 168.12, subd. 2a(a)(2).

[8] *Minnesota Statues* 2017, 168A.02, subd. 2.

In this section, we present the different types of taxes and fees associated with obtaining, modifying, or transferring a title, and discuss the accuracy with which transactions were processed in MNLARS. Then we identify possible reasons why transactions were inaccurate and make recommendations for improvement. We present recommendations that address broader concerns about MNLARS in Chapter 4.

Taxes and Fees Examined

We examined 14 different types of taxes and fees associated with title transactions. Altogether, we tested 3,534,555 transactions that took place between July 24, 2017, and February 28, 2018; these transactions totaled $458,304,074. The most common fees in our testing were the standard title fee, public safety vehicle fee, and title transfer tax.[9] However, the sales tax accounted for about 96 percent of the title-related taxes and fees collected during this time period.   Exhibit 3.2 briefly describes the most common title-related transactions in MNLARS.

Sales tax represents

96%

of money collected for title-related charges.

Exhibit 3.2: Definitions of Common Title-Related Transactions

Title-Related Transaction	Definition
Public Safety Vehicle Fee	An additional $3.50 fee that must be paid with any title fee transaction.[a]
Sales Tax	Sales tax is due on most purchases of motor vehicles and is based on 6.5 percent of the total purchase price or fair market value of the vehicle, whichever is higher. A $10 or $150 "in-lieu of" tax is applied, respectively, when a vehicle exceeds its ninth model year or is considered a collector model.[b]
Title Fee	An $8.25 title fee is due on all initial applications for vehicle titles and transfers, including for the issuance of titles, vehicle repossessions, corrections to titles, and owner name changes.[c]
Title Transfer Tax	A title transfer tax of $10 must be paid upon the initial registration and each subsequent transfer of title within the state, other than transfers for resale purposes, for every motor vehicle weighing more than 1,000 pounds.[d]

[a] *Minnesota Statutes* 2017, 168A.29, subd. 1(b).

[b] *Minnesota Statutes* 2017, 297B.02, subds. 2 and 3.

[c] *Minnesota Statutes* 2017, 168A.29, subd. 1(a)(1)(ii).

[d] *Minnesota Statutes* 2017, 115A.908.

SOURCE: Office of the Legislative Auditor.

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[9] Other fees we tested included duplicate title fees, nontitle transfer fees, late transfer penalty fees, issuance of lien fees, assignment of lien fees, duplicate lien card fees, expedited title fees, dealer reassignment fees, technology surcharge fees, and salvage inspection fees.

Testing Results

For our testing, we considered all title-related transactions recorded within MNLARS through February 28, 2018. This included all transactions associated with obtaining, transferring, or updating a title, including sales tax payments, salvage inspection transactions, and adding or transferring security interests (liens) on a vehicle. We compared actual charges with expected charges for these types of transactions. We designed our tests to return transactions that were not for the authorized and expected amount.

Almost all of the title-related transactions processed in MNLARS between July 2017 and February 2018 were accurate.

Exhibit 3.3 provides information on the exceptions we found, by transaction type.

Exhibit 3.3: MNLARS Title Fee and Tax Exceptions, July 24, 2017, through February 28, 2018

Title-Related Transaction	Number of Transactions	Percentage of Transactions with Errors	Estimated Overcharges	Estimated Undercharges
Title Fee	767,126	0.02%	$ 652	$ 85
Public Safety Vehicle Fee	765,663	0.00%	0	1
Title Transfer Tax	669,985	<0.01%	167	15
Sales Tax	608,749	0.03%	0	8,667
Lien Fee, per grant	323,350	<0.01%	7	0
Late Transfer Penalty	316,317	<0.01%	10	0
Other transactions[a]	83,365	0.65%	311	104
Total	3,534,555	0.03%	$1,147	$8,872

[a] "Other transactions" include duplicate title fees, expedited title fees, nontitle transfer fees, salvage inspection fees, duplicate lien cards, and other miscellaneous fees.

SOURCE: Office of the Legislative Auditor.

Reasons for Title Transaction Variances

While most title-related transactions processed in MNLARS were accurate, we did find some exceptions. We investigated those transactions that appeared to be inaccurate and asked DPS for explanations about what may have caused these discrepancies. Several common themes emerged from our testing, identifying possible causes for inaccurate transactions. We discuss three of these possible causes—manual entries, inactive fees, and incorrect calculations—below.

Manual User Entries

In some exceptions we identified, the user entering the transaction bypassed the standard entry process for fees. In these situations, DPS staff told us, the user bypassed the standard process to compensate for a problem in MNLARS. Although not ideal, manual entry is an acceptable way to process transactions; however, manual entries increase the risk for an incorrect fee or transaction code entry.

Many of the manually entered transactions we saw resulted in an incorrectly coded record or fee amount that deviated from the expected fee. For example, we found 91 exceptions where the system user charged the customer a different price than required for a duplicate title.[10] DPS also explained that for 40 sales tax transactions totaling $8,667, system users incorrectly applied the law allowing customers to pay a reduced rate in the tenth year or older of a passenger vehicle.

Inactive Fees

We identified a few transactions where MNLARS did not prevent a user from incorrectly using a fee that had expired. For example, we found two transactions where the system user correctly charged the customer, but incorrectly recorded the transaction as a technology surcharge or dealer reassignment fee. While there was no impact to the customer, system users should not have selected these fee types. Both of these fees expired on December 31, 2016.[11]

Incorrect Trade-In Value

Finally, we noted 146 transactions where a system user recorded an incorrect value for a vehicle "trade-in." In certain situations, the purchaser of a new vehicle will trade in a vehicle they already own to pay part of the purchase price. In these instances, the trade-in has the effect of reducing the final purchase price of the new car and therefore reducing the amount of sales tax the customer owes.[12] In the cases we identified, the system user recorded trade-in values between $1 and $16 in MNLARS. While these customers ultimately paid the correct amount of sales tax, the errant data entries remain in MNLARS.

Potential Consequences

While we did not identify many inaccurate title-related transactions in MNLARS, any inaccuracies can result in customers being charged the wrong amount and state accounts receiving incorrect deposit amounts.

For all title-related transactions, we estimate that:

- Overcharges to customers totaled $1,147 across the different title taxes and fees. Title fees accounted for $652 of the overcharges.

- Undercharges to customers totaled $8,872 across the different title taxes and fees. Sales tax errors accounted for approximately $8,667 of these overcharges because system users did not correctly apply the law that allows customers to pay a reduced rate in the tenth year or older of a passenger vehicle.[13]

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[10] *Minnesota Statutes* 2017, 168A.29, subd. 1(a)(5).

[11] The technology surcharge expired after December 31, 2016, according to *Minnesota Statutes* 2017, 168A.29, subd. 1(1)(i). The dealer reassignment fee also expired after December 31, 2016, according to *Minnesota Statutes* 2017, 168A.29, subd. 1(3). These fees remain in MNLARS because of rare circumstances where outstanding fees may exist for these transaction types.

[12] *Minnesota Statutes* 2017, 297B.01, subd. 14.

[13] *Minnesota Statutes* 2017, 297B.02, subd. 2.

Minnesota statutes instruct DPS to deposit collected fees into certain accounts. For example, 100 percent of title transfer taxes are credited to the state's Environmental Fund.[14] Similarly, 42.86 percent of the salvage inspection fees are credited to the Special Revenue Fund, while the remaining amount is credited to the General Fund.[15] When MNLARS does not collect the correct amount for these charges, various state funds are impacted.

In sum, the errors we found affect a small percentage of the title-related transactions we examined in MNLARS. Nevertheless, they present opportunities for improving MNLARS and strengthening training for system users.
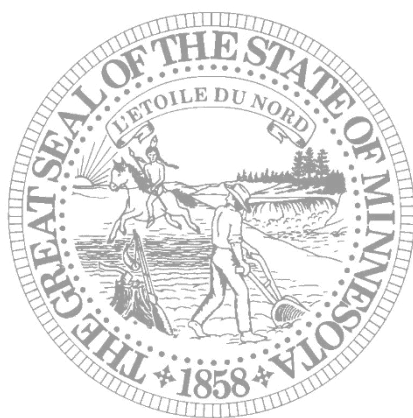
RECOMMENDATIONS

- **Minnesota IT Services and the Department of Public Safety should ensure MNLARS does not allow system users to inappropriately apply outdated or expired fees.**

- **The Department of Public Safety should provide MNLARS users training on how to accurately record the value of trade-in vehicles.**

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[14] *Minnesota Statutes* 2017, 115A.908.

[15] *Minnesota Statutes* 2017, 168A.152, subd. 2(b).

Chapter 4: Discussion

This special review focused on the accuracy of specific transactions within the Minnesota Licensing and Registration System (MNLARS). As a result, our work necessarily focused on very detailed aspects of the system. However, as we summarized our findings across transaction types, we noticed some common themes.

For all of the transaction types we examined, we had concerns about the integrity of the data in MNLARS. Additionally, we found several examples of errors introduced by system users, due in part to a program that allows users to enter erroneous information. Finally, we observed that the complexity of the law itself exacerbates some of these errors. In this chapter, we briefly discuss these broader concerns and identify recommendations for improvement.

Data Integrity

Our testing revealed examples of data within MNLARS that simply did not make sense. For example, the system allowed a base value of $2 to be recorded for a 2018 Ford F-150 pickup truck. As another example, MNLARS identified more than 100 base values for a given make, model, and year of a car that should have had only 1 base value recorded in the system.

The Department of Public Safety does not routinely assess the integrity of MNLARS data. As a result, customers have paid incorrect amounts in taxes and fees.

We were concerned with the Department of Public Safety's (DPS) inability to assess the integrity of MNLARS data and ensure that MNLARS charged customers the correct amount in taxes and fees. DPS and Minnesota IT services (MNIT) staff knew about some of the transaction errors we identified and were working to correct them. However, there were other instances where DPS and MNIT staff did not know about a problem until OLA staff pointed it out.

For example, DPS staff had not evaluated base values assigned to VIN descriptors to ensure that similar vehicles were valued (and therefore taxed) at similar rates.[1] As we discussed in Chapter 1, more than 15 percent of VIN descriptors for vehicles newly registered in MNLARS had a base-value range of $1,000 or more. Further, MNLARS had 130 different base values for the VIN descriptor associated with the 2018 Ford F-150 pickup truck,

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[1] As discussed in Chapter 1, a VIN descriptor is the first ten digits of a vehicle identification number (VIN) and typically includes information about the vehicle's make, model, and model year. Each person who owns the same make, model, and year of a given vehicle should pay the same amount of registration tax and therefore have the same base value recorded in MNLARS. *Minnesota Statutes* 2017, 168.013, subd. 1a(b) and (c), indicates that DPS should use the lowest manufacturer's suggested retail price when determining the base value for a given vehicle.

ranging from $2 to almost $70,000. These differences resulted in owners of substantially similar vehicles paying significantly different amounts of registration tax.[2]

Similarly, DPS and MNIT staff did not know that MNLARS incorrectly calculated registration tax for certain types of nonpassenger vehicles. For example, as we discussed in Chapter 2, DPS staff did not know that MNLARS did not correctly discount the vehicle registration tax for a certain type of older recreational vehicle. Again, this type of error resulted in vehicle owners paying the incorrect amount of registration tax.

Given the inaccuracies we identified, it is important for DPS to ensure the integrity of MNLARS data and make corrections as needed. However, even if DPS corrects known errors, Minnesota statutes may make it difficult for DPS to collect the correct amount of registration tax.

Minnesota statutes may prevent the Department of Public Safety from charging customers the correct amount of registration tax if the tax on their vehicle had been previously undercharged.

By law, DPS may not charge a customer more in registration tax for a given passenger vehicle than had been previously paid on that vehicle. Specifically, the law states:

> For any vehicle previously registered in Minnesota and regardless of prior ownership, the total amount due…must not exceed the smallest total amount previously paid or due on the vehicle.[3]

If MNLARS has an incorrectly low base value for a vehicle, the owner of that vehicle has likely been undercharged for registration tax. Even if DPS corrects the vehicle's base value in MNLARS, DPS may not charge the owner of the vehicle the correct registration tax if it exceeds the tax previously charged for that vehicle.

RECOMMENDATIONS

- **The Department of Public Safety and the Legislature should work together to ensure all vehicle owners pay the correct amount of registration tax, regardless of previous transaction errors.**

- **The Department of Public Safety and the Legislature should consider reimbursing customers where known errant collections were made.**

- **The Department of Public Safety and Minnesota IT Services staff should work together to correct programming and coding issues.**

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[2] Problems with inaccurate base values go back more than 20 years. In a 1995 financial audit, OLA noted that DPS was not assigning vehicle base values consistently and recommended that the department verify the accuracy of the base values before posting them to the motor vehicle system. See Office of the Legislative Auditor, Financial Audit Division, *Department of Public Safety Financial Audit for the Year Ended June 30, 1994* (St. Paul, 1995), 2.

[3] *Minnesota Statutes* 2017, 168.013, subd. 1a(j).

User Errors

Across all of the transaction types we examined, we found examples of errors introduced by system users. Some of these errors were simply the result of a system user entering the wrong information. For example, a user entering into MNLARS a vehicle's odometer reading or weight, instead of its base value. These types of errors will best be resolved by increased training and experience with the system.

Some user errors are the result of inadequate controls in MNLARS.

Some of the errors we saw, however, occurred because MNLARS inappropriately allows system users to introduce errors. For example, since 1981, all passenger vehicles manufactured and sold in the United States have a 17-digit vehicle identification number (VIN). However, MNLARS permits system users to enter a VIN with fewer than 17 digits for these vehicles. Without a correct VIN or VIN descriptor, the risk of having an incorrect base value or registration tax amount increases.

Similarly, MNLARS allowed system users to charge customers fees that had already expired. As we discussed in Chapter 3, we found some transactions where system users correctly charged customers, but incorrectly recorded the transaction as a technology surcharge or dealer reassignment fee; these fees had expired on December 31, 2016.[4]

RECOMMENDATIONS

- **The Department of Public Safety and Minnesota IT Services should implement controls to help prevent errors introduced by system users.**

- **The Department of Public Safety should evaluate and improve policies, procedures, communications, and training for all system users.**

Complexity in the Law

As has been illustrated throughout this report, licensing and registering vehicles is a complicated process. The process is made even more complicated by the numerous requirements and exceptions outlined in law.

Minnesota laws governing vehicle licensing and registration are complex.

Minnesota statutes authorize more than 1,200 different types of license plate fees and contributions.[5] Registration tax for passenger vehicles depends on the base value and age of

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[4] The technology surcharge expired on December 31, 2016, according to *Minnesota Statutes* 2017, 168A.29, subd. 1(1)(i). The dealer reassignment fee also expired on December 31, 2016, according to *Minnesota Statutes* 2017, 168A.29, subd. 1(3). These fees remain in MNLARS because of rare circumstances where outstanding fees may exist for these transaction types.

[5] *Minnesota Statutes* 2017, 168.12-168.1299.

a vehicle, until its eleventh year, at which point the tax converts to a flat rate.[6] Most—but not all—counties authorize wheelage tax, but the rates vary across counties and may change annually.[7] All of these nuances and requirements increase the complexity of the licensing and registration process. While it is reasonable to expect MNLARS—a brand-new system that cost Minnesota more than $90 million—to be accurate, these complexities increase the difficulty of coding and using MNLARS.

RECOMMENDATION

The Legislature should consider simplifying the laws that govern vehicle licensing and registration.

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[6] *Minnesota Statutes* 2017, 168.013, subd. 1a.

[7] *Minnesota Statutes* 2017, 163.051.

List of Recommendations

- The Department of Public Safety (DPS) should correct a VIN descriptor's base value once it receives updated information from the vehicle manufacturer. (p. 13)

- DPS should correct base-value amounts in MNLARS, so future registration transactions will be correct. (p. 19)

- DPS and the Legislature should work together to ensure all vehicle owners pay the correct amount of registration tax, regardless of previous transaction errors. (pp. 19 and 46)

- DPS should work with Minnesota IT Services (MNIT) to ensure MNLARS is programmed to accurately calculate vehicle registration tax for heavy vehicles based on a consistent interpretation of state law. (p. 29)

- DPS and the Legislature should work together to clarify state law regarding vehicle registration tax rates for heavy vehicles. (p. 29)

- DPS should work with MNIT to ensure MNLARS is programmed to accurately calculate vehicle registration tax for older self-propelled recreational vehicles with gross weights of 4,500 pounds or less. (p. 29)

- DPS should work with MNIT to establish controls in MNLARS to prevent system users from miscoding registration tax transactions for low-weight trailers. (p. 29)

- DPS should develop procedures to monitor the accuracy of variable-rate vehicle registration tax transactions for nonpassenger vehicles, and to initiate corrections and system enhancements as necessary. (p. 29)

- DPS should develop procedures to monitor the accuracy of flat-rate registration tax transactions for nonpassenger vehicles, and initiate corrections and system enhancements as necessary. (p. 32)

- DPS should enter county wheelage tax rate changes into MNLARS on a more timely basis. (p. 35)

- DPS should prevent transactions for registration periods starting in subsequent calendar years until after it updates county wheelage tax rates in MNLARS. (p. 35)

- DPS should correct the registration periods in MNLARS that incorrectly exceeded 12 months. (p. 35)

- DPS should develop procedures to monitor the accuracy of county wheelage tax transactions, and to initiate corrections and system enhancements as necessary. (p. 35)

- DPS should refund vehicle registration tax and county wheelage tax collected from customers that qualified for the active military service exemption. (p. 36)

- DPS should work with MNIT to ensure MNLARS is programmed to effectively prevent vehicle registration tax and county wheelage tax from being charged for transactions that include the active military service code. (p. 36)

- DPS should assess the contribution deposits in the state parks and trails donation account and correct any outstanding errors. (p. 39)

- MNIT and DPS should ensure MNLARS does not allow system users to inappropriately apply outdated or expired fees. (p. 43)

- DPS should provide MNLARS users training on how to accurately record the value of trade-in vehicles. (p. 43)

- DPS and the Legislature should consider reimbursing customers where known errant collections were made. (p. 46)

- DPS and MNIT staff should work together to correct programming and coding issues. (p. 46)

- DPS and MNIT should implement controls to help prevent errors introduced by system users. (p. 47)

- DPS should evaluate and improve policies, procedures, communications, and training for all system users. (p. 47)

- The Legislature should consider simplifying the laws that govern vehicle licensing and registration. (p. 48)

September 21, 2018

Judy Randall, Deputy Legislative Auditor
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Centennial Office Building
658 Cedar Street
Saint Paul, MN 55155

Dear Ms. Randall,

Thank you to you and your staff for the work done to analyze and understand the many factors that ultimately go into a transaction performed through the MNLARS system. Those efforts will contribute important insight as the Department of Public Safety, Minnesota IT Services, MNLARS users and stakeholders, and the Minnesota Legislature work to continuously improve the delivery of vehicle services to the citizens of Minnesota. We appreciate the conversations that have occurred over the draft report you shared with us; however, because we have not seen a final version of the full report, this letter is our best effort to provide a high level overview of our responses.

Your report reveals the many layers of a MNLARS transaction: the laws that dictate the taxes and fees to be charged; the business processes that are established to apply those laws; the technology put in place to facilitate that business process; and the system users who are charged with carrying out those business processes. In addition, your report highlights the complexities in applying Minnesota motor vehicle laws. This complexity prevents the ability to achieve an ideal state of uniformity as it pertains to the delivery of vehicle services. In reviewing your report, it shows that multiple factors must be considered as one attempts to fully understand the origin of data or transactions that are entered into or performed by the MNLARS system. In addition, there are several examples where statutory interpretation can vary. In order to improve overall service to Minnesotans, these variations cannot solely be considered a MNLARS error because consideration needs to be given to all of the factors that impact a MNLARS transaction.

This variability is particularly evident as it relates to base value determination, where a combination of statutory peculiarity, automotive industry practices, and user input discrepancies contribute to a high degree of variability in base values for a particular make and model of car. This leads to the inability for a consistent base value to be determined.

Your report notes several transaction inaccuracies where defects that were present during the audit period have now been resolved or mitigated by software releases. In addition, the report notes areas where system enhancements could potentially reduce instances of user error or identify occurrences of data variability that

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merit further investigation. Moreover, the report recommends changes in business practice and enhanced user training that would also reduce transaction inaccuracies and data variability. As resources and statute permit, we are committed to implementing these recommendations as we work to mature the MNLARS system and the modernized business processes that the system supports. We are also committed to working with the legislature to explore statutory changes that would better align with the realities of industry practices, reduce the complexity of calculations performed through the MNLARS system, and result in more consistent application of Minnesota statutes.

We feel it is important to register our concerns with the manner by which some of the conclusions in the report are drawn. In some conclusions, transaction inaccuracy is asserted on the basis that OLA staff could not affirmatively identify all relevant business facts from data that is readily-available for analysis in MNLARS. It is important to recognize that the MNLARS information system supports DVS-specified business process that capture relevant supporting information; thus, the system design goal is to capture the actions and decisions of trained, authorized users. In some cases, however, the data supporting those decisions is only available in documents that are imaged, stored and associated to the transaction. In fact, many DVS business processes feature a separation-of-duties process flow wherein DVS staff review transactions entered by other users, including a review of stored document images. Some conclusions in the report are represented as inaccurate transactions where MNIT and DVS staff are confident that a transaction-by transaction analysis that includes stored document images would show these transactions were in fact accurate.

A good example of this approach relates to instances of vehicle non-use as discussed in the Testing Methodology section of Chapter 1 where the draft report reads that "MNLARS undercharges to customers totaled up to $578,360 for passenger vehicles older than 2008." A draft footnote just below this language reads that "MNIT and DPS staff attributed $313,848 of these undercharges to non-use registration periods. OLA did not verify this amount." It is troubling to us that the full $578,360 amount was included in an exhibit in the Report Summary entitled "Dollar Value of Inaccuracies in MNLARS" with only a note stating that "based on discussions with Department of Public Safety staff and supplemental documentation, some exceptions may not represent actual errors." We recognize that verifying this amount of perceived undercharges attributable to non-use would require a time-consuming transaction-by transaction analysis, but we feel that the supplemental documentation provided clearly indicates that such an analysis would yield a significantly lower estimated undercharge amount.

Another example is in the Nonpassenger Vehicle Registration Tax section of Chapter 2, where draft Exhibit 2.2 showed the largest estimated undercharge included in your report, totaling roughly $1.96 million. The note below this table states that "this table represents exceptions between the actual registration amounts charged and the expected amounts we calculated based on MNLARS data. Based on discussions with Department of Public Safety staff and supplemental documentation, some exceptions may not represent actual errors." The draft language in the chapter goes on to read in the "Vehicle Class Conversion and Gross Weight Change Transactions" section as follows:

> *After discussions with DPS and MNIT staff and upon further analysis, we determined that about 57 percent of our exceptions for trucks, tractors, and one-ton pickups and 47 percent of our exceptions for farm trucks were class conversion or gross weight change transactions.   We also determined that about*

69% of the estimated undercharges for trucks, tractors, and one-ton pickups exceptions and about 65% of the estimated undercharges for farm trucks exceptions were these types of transactions. However, identifying the exceptions that were vehicle class conversion or gross weight change transactions does not confirm the accuracy of those transactions. We would need to review each individual transaction and relevant prior registration transactions for each vehicle to determine if accurate.

The exceptions for trucks, tractors, and one-ton pickups and the exceptions for farm trucks constitute $1.92 million of the total $1.96 million figure shows in draft Exhibit 2.2 as an estimated MNLARS undercharge. It is concerning to us that such large percentages of those estimated undercharges (69% and 65%, respectively) would be totaled as transaction errors despite the fact that supplemental information was provided that indicated a clear and justifiable reason for these exceptions. While we appreciate the notes and footnotes that were added to recognize the agencies' explanations and supporting documentation, it is troubling to us that the report would leave the reader with the impression that the Office of the Legislative Auditor has determined this full $1.96 million figure to be an undercharge. It is only upon a very close reading that one understands that a transaction-by-transaction analysis of all data available in the system may very well confirm that $1.31 million of this $1.96 million figure in fact represents accurate transactions where no undercharge occurred.

We agree that current Minnesota motor vehicle law and delivery of motor vehicle registration is a complicated reality – a reality wherein significant statutory complexity runs up against national industry practices, resulting in complex business processes that rely on a combination of people and technology to execute them accurately and consistently. Understanding the MNLARS story means understanding all of these factors, beyond just the functioning of a technology system.
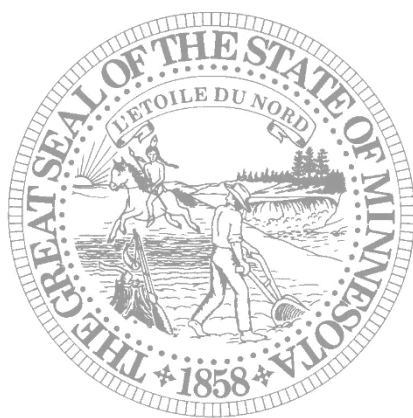
Sincerely,

Johanna Clyborne   Ramona L. Dohman
Commissioner and State Chief Information Officer   Commissioner
Minnesota IT Services   Minnesota Department of Public Safety

O L A