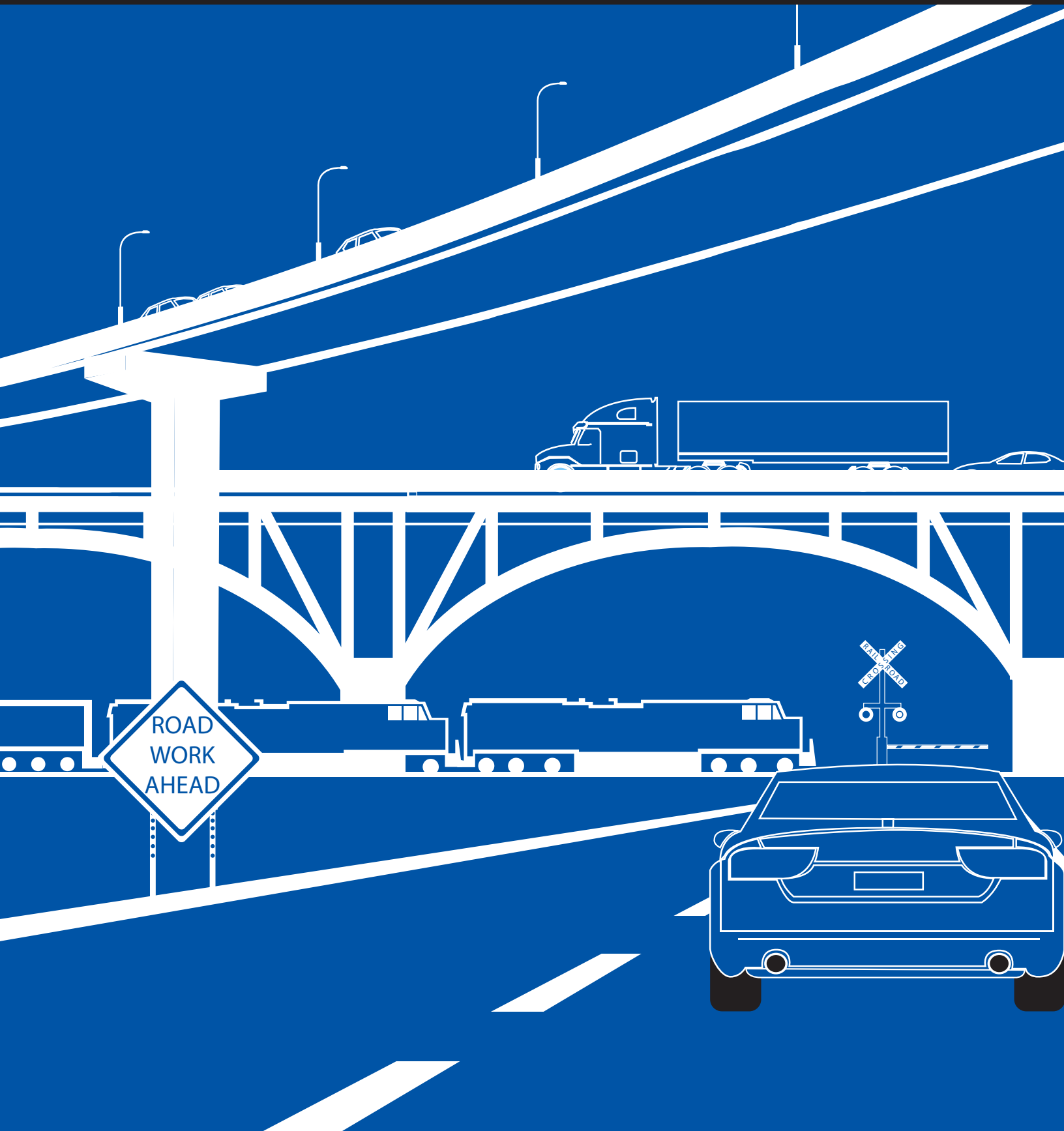




# Issues Pertaining to Rebuilt Vehicle Titles

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Kentucky Transportation Center  
College of Engineering, University of Kentucky, Lexington, Kentucky

in cooperation with  
Kentucky Transportation Cabinet  
Commonwealth of Kentucky

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**Research Report**  
KTC-19-19/SPR17-535-1F

**Issues Pertaining to Rebuilt Vehicle Titles**

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## Executive Summary

In Kentucky, a salvage title is issued when a vehicle has been wrecked, destroyed, or damaged and the cost of repairs exceeds 75 percent of the vehicle's fair market value. Once a vehicle is repaired to roadworthy condition it is issued a rebuilt title. Kentucky issued 110,000 rebuilt and salvage titles in 2018. Over the 2014 to 2018 period, the number of rebuilt and salvage titles issued climbed 31 percent. The economic impact of rebuilt and salvage titles in Kentucky is considerable — approximately \$331 million in 2018, based on data for the taxable values or sales prices of vehicles.

Before a rebuilt title is issued, Kentucky statutes require that a rebuilt vehicle undergo an inspection. Inspections aim to detect stolen vehicles and ensure roadworthiness. The Kentucky Transportation Cabinet's Division of Motor Vehicle Licensing (DMVL) has expressed concerns that the inspection process may not be rigorous enough to prevent stolen vehicles from entering the used vehicle market and to ensure rebuilt vehicles sold in Kentucky are safe. To evaluate its current rebuilt titling process and to determine where changes could be made, DMVL administrators need to understand where rebuilt vehicles are being titled, the entities involved in these practices, and the titling practices of other transportation agencies.

The federal government has established two requirements pertaining to the vehicle titles of rebuilt and salvage vehicles — titles must display the Vehicle Identification Number (VIN) as well as the odometer reading. Beyond these requirements, individual states determine their own regulatory frameworks. This has led to a patchwork of statutes and regulations across the country, which makes it challenging to easily trace the title history of rebuilt and salvage vehicles.

To document titling practices for rebuilt and salvage vehicles adopted by other agencies, the Kentucky Transportation Center (KTC) distributed — via the American Association of Motor Vehicle Administrators (AAMVA) — a survey to all 50 U.S. states and the 13 Canadian provinces and territories. Most of the responding jurisdictions indicated they issue titles for rebuilt vehicles and that these titles can be transferred easily to other states. Before a title is issued, most jurisdictions require an inspection of rebuilt vehicles. Inspections are generally used to identify stolen vehicles rather than to verify that a vehicle is safe to operate. KTC researchers also examined the Ohio State Highway Patrol's (OSHP) rebuilt vehicle inspection process. Taken together, the survey and interviews with OSHP personnel revealed that other states have persistent concerns about Kentucky's rebuilt and salvage titles. In particular, some states do not accept Kentucky's red titles (rebuilt and salvage vehicles that were transferred into Kentucky). OSHP has identified multiple stolen vehicles that had been titled as rebuilt or salvage in the Commonwealth.

Researchers also conducted an economic analysis of rebuilt titles in Kentucky. This analysis found the number of red titles issued for out-of-state salvage and rebuilt vehicles in Kentucky is steadily increasing. In 2018, the median cost of rebuilt vehicles was \$1,785 and the median price of salvage vehicles was \$3,136. The rate of rebuilt and salvage title issuance is very highly correlated with the overall population of individual counties. The largest number of salvage and rebuilt title vehicles are issued in counties in the southern part of central Kentucky, most notably red titles.

To ensure that only safe vehicles from legitimate suppliers are issued titles in Kentucky, DMVL can strengthen the rebuilt vehicle inspection process. This will require amendments to statutes and administrative regulations as well as potentially establishing a law enforcement component as part of the vehicle inspection process and implementing inspection software.

## 1. Background and Policies of Rebuilt and Salvage Vehicles

A title is a certificate issued by a motor vehicle agency identifying ownership of a vehicle along with vehicle information and date of purchase. According to Kentucky Revised Statutes (KRS) 186A.510, a salvage title is issued when a vehicle has been wrecked, destroyed, or damaged and the cost of repairs for the vehicle totals more than 75 percent of the retail value. KRS 186A.510 also defines a rebuilt title. A rebuilt title is issued when a vehicle with a salvage title is repaired to roadworthy condition.

There are only two federal requirements pertaining to vehicle titles for rebuilt and salvage vehicles. The titles for all vehicles sold in the United States must display the Vehicle Identification Number (VIN) as well as the odometer reading. Beyond that, the regulatory framework pertaining to rebuilt and salvage vehicles is determined by each state, which has led to a patchwork of statutes and regulations that makes it difficult to easily trace the title history of these vehicles. One of the most obvious inconsistencies in this system is the multitude of terms used by states transportation agencies to indicate a vehicle has been salvaged or rebuilt. A survey conducted by the Kentucky Transportation Center (KTC) identified the following terms agencies use to refer to salvage and rebuilt vehicles:

- Junk
- Irreparable
- Non-repairable
- Salvage
- Part Only
- Salvageable
- Dismantle
- Rebuilt
- Reconstructed
- Restored
- Refurbished
- Revived junk
- Assembled Vehicle

Many states also have separate titles for flooded or water-damaged vehicles. One state even has a title for reconstructed taxis. This report uses the terms *salvage* and *rebuilt* because they are used by the Commonwealth of Kentucky as well as the American Association of Motor Vehicle Administrators (AAMVA).

When a vehicle is declared salvage, junk, flooded, or a similar condition, motor vehicle agencies place a notation — known as a brand — on the title to indicate the vehicle has suffered extensive damage. Terminologies and brands differ between states based on their statutes and regulations. The visual appearance of the brand on the title also varies by state. AAMVA recommends that states “carry forward” brands from other states, meaning the transferred title includes the brand from the previous states. However, not all states carry forward title brands, making it difficult for consumers to always be certain of a vehicle’s history. To distinguish branded titles from other titles, agencies often use a different color for branded titles, although some do not do this. In addition, motor vehicle agency staff may not be familiar with the brands from other states and choose not to include the previous state’s brand on the title.

Each state also has its own threshold for declaring a vehicle salvage. Some states will declare a vehicle salvage when the repair cost following an accident is 75 percent or more above fair market value. Other states set the threshold at 100 percent or allow insurance companies to be the final arbiters of the salvage threshold. As a result of this inconsistency, a vehicle may be declared salvage in one state, but an identical vehicle with exactly the same type of damage may not be declared salvage in another state.

In Kentucky, titles for salvage and rebuilt titles are processed by the Rebuilt Section of the Division of Motor Vehicle Licensing (DMVL) at the Kentucky Transportation Cabinet (KYTC), as well as county clerks offices. In the initial step, the registrant submits a title application at the county clerk’s office in their resident county. The application is sent to the Rebuilt Section, which receives over 5,000 title applications



per month, where it is reviewed and processed. Registrants can either wait to receive a notification of approval by mail or they can visit the One Stop Shop in the KYTC building located at 200 Mero Street in Frankfort to obtain the approval letter. Once the registrant has the approval letter, they visit the county clerk's office again to obtain their title, registration document, and registration plates.

The primary administrative duties for rebuilt titling take place in DMVL. The One Stop Shop is open Monday through Thursday from 8:00 AM to 3:30 PM. One employee assists customers in the One Stop Shop while another employee is responsible for email correspondence. Three additional employees open mail, examine mail, and process applications. The Rebuilt Section has a section supervisor who oversees daily activities. The Rebuilt Section has nine main groups of customers and partners: the general public, county clerks, car dealerships, insurance companies, law enforcement, rebuilt industry representatives, state agencies, the Department of Insurance, and federal agencies. In addition to title application processing, the Rebuilt Section assists Kentucky State Police (KSP) with vehicle fraud and theft investigations.

Kentucky statutes allow licensed dealers to transfer salvaged/junk titles into Kentucky from out of state, reconstruct the vehicle to roadworthy conditions, and retitle the vehicle as rebuilt following a safety inspection by a certified inspector. However, the inspection requirements are limited and the safety of rebuilt vehicles on Kentucky highways is a concern. Generally, the inspector is only required to check the VIN and confirm a vehicle's odometer reading. The limited inspection requirements open the door to individuals who may be using Kentucky's lax inspection process to rebuild vehicles that are unsafe. The less-than-rigorous inspection also provides a loophole for concealing stolen vehicles.

Kentucky would like to address potential safety problems inherent in the current titling and inspection process. Administrators funded this study to investigate policies in other states, identify best practices for salvage and rebuilt titling, and develop a better approach for ensuring the safety of rebuilt vehicles as well as prevent fraud. This research project provides relevant information about state laws and regulations, projections for potential economic impacts to motor vehicle dealers if the statutes pertaining to rebuilt vehicles are modified, and a set of implementation guidelines to improve Kentucky's salvage and rebuilt title statutes.

## **1.1 Background on Vehicle Titling in the United States**

Vehicle titling is a complex process in the United States because each state maintains distinct nomenclature and requirements for titling. However, there are basic terms critical to understanding vehicle titling.

### *Titles*

A title (and subsequent registration) serves multiple purposes that help ensure safety and consumer protection. First, a title documents the ownership of the vehicle. This document also provides the condition of the vehicle as defined by state laws. Placing the VIN on the title helps law enforcement identify vehicle owners, prevent vehicle theft, and aid in vehicle recovery following theft. The title and registration assists states in enforcing insurance requirements for motor vehicles. The title also helps consumers verify the history of a vehicle prior to purchase to ensure they are getting the most value for their money. If a consumer knows the condition of the vehicle, they can research the market value for similar vehicles and compare costs. Title history also informs consumers about the vehicle's history of accidents or flood damage as well as safety recalls. Given that the average used car costs just over \$20,000, title history can protect consumers before making a significant investment (Bomey, 2018).

### *Branded Titles*

At the beginning of its lifecycle, a vehicle has a non-branded title or a clean title. A vehicle with a clean title has no history of accidents, flooding, or theft. Once a vehicle has been in an accident, flooded, or stolen, the title is branded. Ideally, this brand will carry forward each time the vehicle is titled in another state.

Title washing refers to instances where a dealer or individual transfers a vehicle to a state that does not carry forward title brands from other states in an attempt to conceal the brand history.

A vehicle with a salvage title has been declared a total loss by an insurance company following an accident. In some states, it can also indicate that a vehicle was stolen and recovered. States generally do not permit the operation of salvage title vehicles on roads, except for transporting a vehicle from auction to its final destination. Total loss is when a first-party insurer determines a vehicle's actual cash value (ACV) prior to the crash is less than the projected repair costs (Mattieson, Wickert, Lehrer, 2018). In such cases, the insurance underwriter considers the cost of the repairs, repair supplements (additional repairs not accounted for in the initial estimate), rental car costs, and resale value in determining whether a vehicle is a total loss or not (Mattieson, Wickert, Lehrer, 2018). Once a vehicle has been declared a total loss, the insurance company generally pays the actual cash value of the vehicle to the owner, and the ownership is typically transferred to the insurance company (Mattieson, Wickert, Lehrer, 2018). If the vehicle meets the state's definition of salvage, the insurance company must obtain a title which displays the salvage brand. At this point, the insurance company can sell the vehicle to a salvage dealer. Salvage dealers may then sell those vehicles for parts or to individuals who will rebuild the vehicle in states that will title it. Generally, a rebuilt vehicle is comprised of parts sourced from similar makes and models. Rebuilders frequently take these parts from salvage title vehicles.

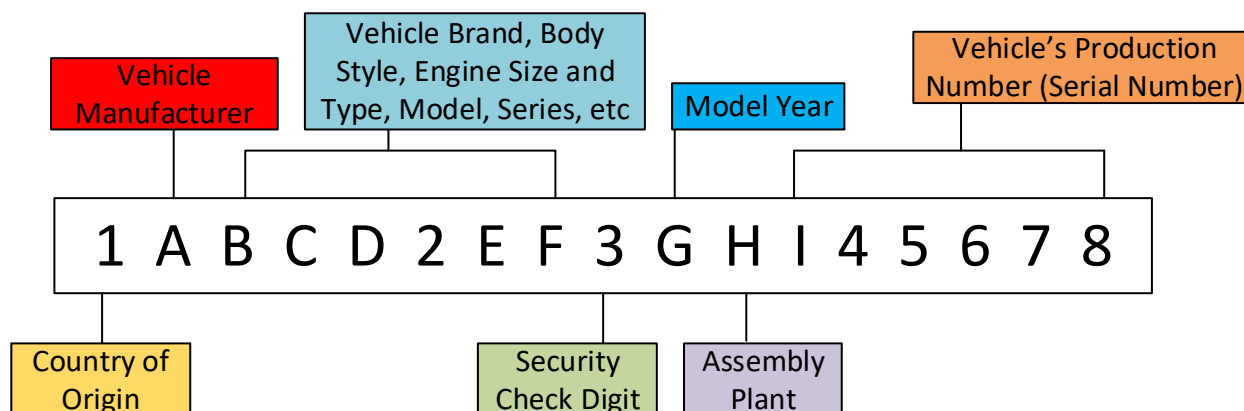
A flood-damage title indicates the vehicle was submerged in some form of fluid to the level of the dashboard (AAMVA, 2012). Flooded vehicles usually suffer damage to electrical components which can cause serious mechanical hazards and failures. In a 2012 best practice document on rebuilt vehicle titling, AAMVA recommended that states brand flooded vehicles as non-repairable and prohibit rebuilders from sourcing any parts from them (AAMVA, 2012). Kentucky allows the rebuilding of vehicles with flood-branded titles.

A non-repairable vehicle has been damaged to the point that it cannot be restored to a roadworthy condition. These vehicles are typically sold for the value of the scrap metal and parts. Kentucky does not issue titles for non-repairable vehicles. The salvage title serves as a catch-all category for both repairable and non-repairable vehicles.

### *VIN Numbers*

The VIN is a 17-digit code that car manufacturers apply to each vehicle at the beginning of its lifecycle; it provides multiple data. VINs also appear on vehicle parts. Federal law has required manufacturers to affix VIN stickers or plates to vehicles since 1981. The VIN is found in multiple places, including the dashboard, driver's side door jamb, engine, and under the hood. This number must always be included on titles, registration, insurance policies, vehicle history reports, service records, and police reports (Experian, 2017). In addition, the VIN is the key piece of data for the National Motor Vehicle Title Information System (NMVTIS). Developed and maintained by the Department of Justice, this database contains vehicle histories based on reports submitted by insurance underwriters, salvage dealers, mechanics, and junkyards.

Figure 1 shows a sample VIN and indicates what information can be gleaned by examining the combination of letters and numbers. The first number (1, yellow box) indicates the country of origin. The first letter (A, red box) indicates the vehicle manufacturer. The next series of letters and numbers (BCD2EF, teal box) provides the brand, body style, engine type, model, and series. The green box (3) is the security check digit while the blue box (G) shows the vehicle's model year. The next letter (H, purple box) denotes the location of the assembly plant. The final series of numbers (I45678, orange box) is a serial number for the vehicle.



**Figure 1** VIN Number Decoder

The VIN is the first piece of evidence law enforcement uses in their investigations when a vehicle theft is reported. Since the VIN assists law enforcement in identifying stolen vehicles, criminals tamper with the VIN to obscure a vehicle's history or ownership (Experian, 2013). A number of ways exist for someone to tamper with the VIN. Criminals can clone a VIN so that two vehicles have the same VIN. Criminals may remove the VIN from one car and apply it to a similar make and model. Car thieves may also apply a fake sticker to the VIN or even scratch the VIN off.

### *Odometer*

Another important piece of data for the vehicle title is the odometer reading. The odometer measures the distance that a vehicle has traveled. Odometers use both electronic and mechanical means to measure distance. Mileage factors into the value of a vehicle. Car buyers consider the amount of mileage on a car to determine the potential longevity of the vehicle and the fair market price. Since a vehicle with higher mileage is generally worth less money, some individuals may tamper with the odometer prior to selling the vehicle to artificially increase the value (Kelley Blue Book, 2013). To prevent people from engaging in this fraud, manufacturers have moved from mechanical odometers to digital odometers. In addition, each time that a vehicle is sold, the bill of sale must contain an odometer disclosure statement under 49 U.S. Code Chapter 327.

### *NMVTIS*

NMVTIS was established by the 1992 Anti Car Theft Act. Under the act, the US Department of Transportation (USDOT) was directed to create a national vehicle information system to house titling information and enable states to access the information for all vehicle transactions. The act was amended in 1996 and responsibility for oversight was removed from USDOT and placed with the US Department of Justice (DOJ). Motor vehicle agencies, insurance companies, and salvage yards are required to report vehicle title changes to NMVTIS. The DOJ oversaw the implementation of NMVTIS and continues to oversee its operation in partnership with AAMVA. NMVTIS provides many benefits to states and consumers. The system prevents title fraud and stolen and unsafe vehicles from entering the motor vehicle trade. A 2009 National Public Radio broadcast reported that car dealers, salvage dealers, insurance companies, and vehicle history companies objected to the creation of NMVTIS (Brady, 2009). However, auto recyclers, salvage yards, and insurance companies now must report information to NMVTIS under threat of penalty (NMVTIS, 2019). Businesses can face a civil penalty of \$1,000 per vehicle that is not reported (NMVTIS, 2019). NMVTIS also provides vehicle history reports that contain the current title state, title date, odometer reading, brand history, and any history of total loss.

## **1.2 Current Regulatory Framework for Salvage and Rebuilt Vehicle Titling in the United States**

There is no specific federal oversight of salvage and rebuilt vehicles in the US, which leaves it up to the states to ensure the safety of these vehicles and deter fraud. In 2005, the Subcommittee on Consumer Affairs, Product Safety, and Insurance held hearings on flooded and salvage vehicle fraud. Congress convened the committee after four Category 5 hurricanes (Emily, Katrina, Wilma, Rita). During the hurricane season and following various natural disasters such as floods, many states with lax title branding laws receive a significant increase in title transfers for flooded and salvaged vehicles from states affected by these disasters. During the 2005 hurricane season, 500,000 vehicles were flooded in Alabama, Mississippi, and Louisiana. Many of these vehicles were declared salvage by insurance companies, sold, and taken to other states to be titled and rebuilt. The threat of title washing also became of great concern. Title washing is the practice of transferring a branded title to a state that does not forward brands, with the intent of concealing vehicle's history. Title washing results in vehicles being sold with an inaccurate title history. Title washing remains an issue because many states do not carry forward brands.

While the Subcommittee on Consumer Affairs, Product Safety, and Insurance focused on salvage and rebuilt vehicles in 2005, following an unusually severe hurricane season, the testimonies highlighted issues that continue to challenge consumers, car dealers, and motor vehicle agencies 14 years later. There is no consistent nomenclature for title branding; the visual appearance of a brand is different for every state. Motor vehicle agency staff may not be familiar with the branding terminology used by another state or how the brand from one state would translate into the nomenclature of their state (Protecting the Consumer from Flooded and Salvage Vehicle Fraud, 2005). Even if a state carries a brand forward, the new title may not prominently display it on the title. These factors make it difficult for consumers to know whether they have the most accurate title history for vehicles they are purchasing.

In addition to variations in title branding, states also vary on the threshold for declaring a salvage vehicle. Some states declare a vehicle as salvage when the cost of repairing the vehicle is more than 50 percent of the fair market value (Mattieson, Wickert, Lehrer, 2018). Other states declare a vehicle as salvage when repairs would cost more than 80 percent or even 100 percent of the fair market value (Mattieson, Wickert, Lehrer, 2018). As a result, a vehicle declared as salvage in one state may not be declared salvage in another state.

Insurance companies frequently sell total-loss vehicles at salvage auctions to make a profit. Some of these vehicles are purchased by legitimate rebuilders, however, others are purchased by individuals who seek to sell a vehicle for much more than it is worth and do not reconstruct the vehicle to pre-accident conditions. Many rebuilders do an excellent job of restoring a vehicle to pre-accident conditions, but the lack of federal safety standards makes it difficult to guarantee that. These vehicles can be dangerous. Flooded vehicles rust earlier and frequently have electrical problems. Late model vehicles depend heavily on electrical sensors for the most basic safety operations such as braking or airbag deployment. In 2009, National Public Radio broadcast a story about the passenger of a rebuilt vehicle being killed because the airbags did not deploy in a head-on collision (Brady, 2009). The quality of repair work can also be in question. Rebuilders may not have the proper equipment to make the necessary repairs or cut corners to save money. Also, vehicle value is significantly diminished when a vehicle has been wrecked or flooded. However, when vehicles are rebuilt and sold, sellers may still charge the current market price for the vehicle. Customers end up paying more for the vehicle than it is worth.

Inconsistent titling practices limit a consumer's ability to be fully informed when they purchase a used vehicle. As a result, they risk investing money in unsafe, overpriced cars. Buyers can purchase a vehicle from a used car dealer unaware that a vehicle was rebuilt from a salvaged or flooded vehicle. This happens when the purchaser finances the vehicle through the car dealership or other financial institution. Since the owner of the vehicle takes possession of the title, only the entity that holds the lien on the vehicle has access to the title. In such cases, a consumer would not see a title unless they actually pay off the loan and take

ownership of the vehicle. Meanwhile, the consumer has unknowingly paid more for a vehicle than it is worth and invested in a vehicle that could have serious mechanical issues. The 2005 congressional hearing presented testimony about consumers who purchased a vehicle under warranty, but the warranty was void once the branded title history was discovered. In addition, some insurance companies will not insure a rebuilt vehicle unless the state in which it is registered mandates that underwriters insure these vehicles.

Many people who hear about loopholes in vehicle title and branding would say that vehicle history reports protect consumers from these dangers. Vehicle history reports, from companies like Carfax, provide vehicle title histories to consumers for a fee. Carfax contains six billion records and provides vehicle data reported by insurance companies, vehicle manufacturers, vehicle repair shops, rental companies, law enforcement, and fire departments. Ideally, this provides the consumer with as comprehensive information as possible. However, the report's accuracy depends on multiple factors. There can be a significant time lapse between the titling of the vehicle and that information being reported to Carfax (Trop, 2016). The accuracy also depends on whether or not a state carries forward the brands from other states. In addition, insurance companies may not report all total losses. Insurance companies often allow a vehicle owner to keep possession of a vehicle once it has been totaled. In these cases, owners may not retitle the vehicle as salvage. This loophole diminishes the accuracy of motor vehicle title histories.

The North Carolina Consumers Council (2019) tested the accuracy of Carfax and found it to be lacking. In one case, it paid for a report on a vehicle known to have had significant collision damage (North Carolina Consumers Council, 2019). The Carfax report stated the vehicle only had minor collision damage (North Carolina Consumers Council, 2019). In a 2016 podcast titled "The Problem with Carfax," Michigan attorney Steve Lehto ordered Carfax reports for five vehicles he knew manufacturers purchased back from buyers due to lemon laws. None of the vehicle reports said these vehicles were manufacturer buybacks. The report contained the phrase "listed as manufacturer sold at auction" and contained a sentence that explains that vehicle auctions are a common way for car dealers to obtain inventory (Lehto, 2016). Lehto (2016) stated that one of the vehicles had undergone four engine rebuilds and a vehicle repair shop advised the owners to take legal action against General Motors. However, the vehicle was still sold as a used vehicle with a clean Carfax report.

Consumers often purchase used vehicles because they are on a limited budget and they have fewer choices. As a result, certain populations are more likely to purchase a formerly salvaged vehicle. The 2005 hearing discussed the fact that military families are often targeted by used car dealerships located near military bases. The vehicles they sell may be of questionable quality and require significant repairs. Committee members specifically pointed to rebuilt vehicles as a contributing factor. The Navy Marine Corp Relief Society reported the largest amount of its aid going to vehicle repairs for military families. The same organization found legal assistance to help military families take legal action against used car dealers is the number one issue the organization deals with, followed by legal action against dealerships that sold rebuilt vehicles as certified used vehicles. Another study made a similar argument about the working poor. Many low-income individuals end up purchasing rebuilt vehicles at much higher prices than they are worth and are saddled with ongoing repair expenses (Karger, 2008). It is also possible that people intentionally purchase rebuilt vehicles to save money on the private market. Regardless of the context, it is difficult to ensure these individuals are purchasing safe, reliable vehicles without federal oversight.

### **1.3 Addressing the Issue of Salvage and Rebuilt Vehicles on the National Level**

There are several suggestions for regulating the rebuilt industry to protect consumers. Car industry experts recommend that the federal government establish a minimum salvage threshold, ensure that all states forward brands from other states, and establish uniform terms and brands. In addition, insurance companies should be required to report all totaled vehicles to NMVTIS. In the 2005 hearings, a participant added that such federal efforts would need enforcement policies similar to the laws that criminalize tampering with odometers and VINs. Other suggestions include providing real-time data for vehicle histories.

In the absence of federal regulation for salvage and rebuilt vehicles, AAMVA works to guide states in their efforts to regulate the industry. Following a 2012 survey by the Unconventional Vehicles Working Group (UVWG), AAMVA developed a best practices document for titling salvage and rebuilt vehicles. The intent of the best practices document was to ensure the safety of drivers, passengers, roadway users, and to protect consumers against fraud. AAMVA encourages jurisdictions to adopt more consistent registration and titling practices for salvage and rebuilt vehicles (AAMVA, 2012). AAMVA recommends that motor vehicle agencies require registrants submit documents proving ownership during the titling process. The title for the rebuilt vehicle should contain the year, make, and model of the original vehicle and carry forward any brand issued by previous states (AAMVA, 2012). The states should also use rebuilt title brands consistent with brands used by NMVTIS. Motor vehicle agencies should ensure that total loss vehicles are retitled to reflect the salvage status. If a registrant seeks a title for a salvaged vehicle, the title should indicate that the vehicle cannot be operated legally on roads. With respect to issuing rebuilt titles, motor vehicle agencies should inspect vehicles before issuing a new rebuilt title. The inspection should examine a vehicle's structural integrity as well as its mechanical safety. AAMVA recommends that prior to titling or registering a rebuilt vehicle, the motor vehicle agency should examine the VINs on the replacement parts and confirm those VINs do not come from stolen vehicles. States should also require that registrants provide the bills of sale, receipts, and other documents which show proof of ownership for any parts that are used to reconstruct the vehicle. Once the title is issued, the motor vehicle agency should retain inspection results as well as all VINs recorded during the inspection.

#### **1.4 The Process for Rebuilding Vehicles**

According to DMVL staff members, most of the rebuilt vehicles that are retitled in DMVL are originally purchased as salvaged vehicles on Copart, although some vehicles are bought on Facebook Marketplace and elsewhere. To understand the rebuilt industry and the issues surrounding rebuilt vehicle titles, it is important to be familiar with Copart, the most common source for salvaged vehicles. Copart is a vehicle remarketing service with operations in the US, Canada, UK, Germany, Brazil, United Arab Emirates, Spain, and Finland. The business was founded by Willis J. Johnson in 1982, becoming a public company in 1994 (Copart New Members Guide, 2019). According to its website, Copart offers as many as 125,000 vehicles for auction on its website [www.copart.com](http://www.copart.com) each day. At the time of writing, the site offered over 162,000 cars for auction. Auction times begin at 10 AM and 9 PM eastern time Monday through Thursday. Previously, Copart offered live auctions but has since shifted the entirety of its operations to online auctions. Copart enables interested buyers to locate and purchase a much larger variety of salvage vehicles, including vehicles located outside of their state.

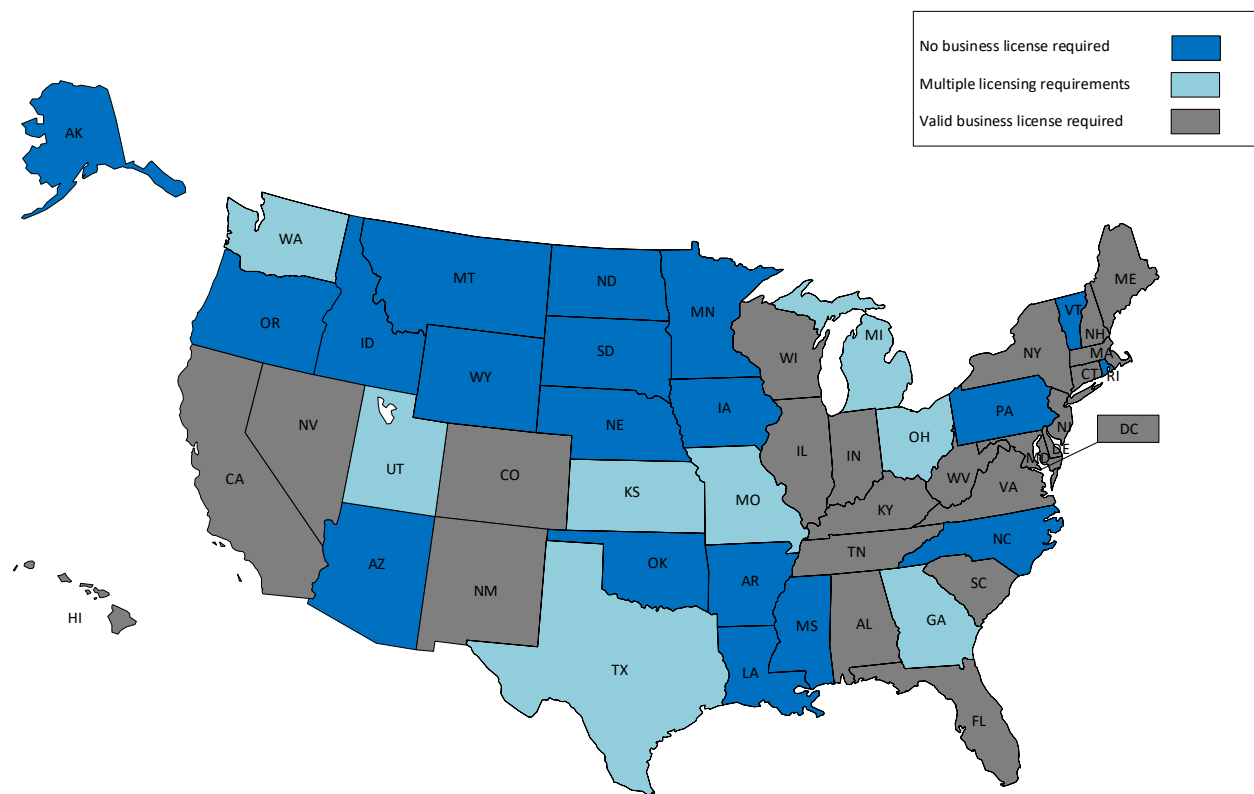
Copart provides online auction services for private sellers, insurance companies, dealerships, rental car companies, and charities. In most cases, vehicles are sold to individuals looking to salvage parts, rebuilders, used car dealers, and individual buyers. Generally, Copart auctions offer vehicles owned by insurance companies with salvage titles that resulted from a total loss declaration. The Copart online auction is similar to Ebay and allows interested buyers to input their highest bid for the vehicle. As other auction participants increase their bids, the Copart system increases the bid incrementally to the customer's maximum bid.

Copart provides a variety of services beyond online auctions, including vehicle marketing, title processing, and the transportation of the vehicles from auction to purchaser. Copart also maintains a Catastrophe Response Team, which travels to areas affected by weather-related disasters such as floods, fire, rain, snow, hail, tornados and hurricanes. The team provides pick up, storage, and sales of vehicles that have been damaged during these types of events.

Before bidding, a potential buyer creates an account on the website. The site requires members to upload an image of government-issued photo identification (e.g., driver's license, passport, or permanent residency card). Business or dealer's licenses, if held, are also uploaded during the registration process. Once the

registration process is completed, the member can access the Auction Dashboard to begin bidding on a vehicle. With the Basic Membership, which is free, a potential buyer can bid on a maximum of five vehicles at a time. A ten percent deposit is required for any bid that is in excess of \$1,000. The Premier Membership, which costs \$200 for registration with a \$150 annual renewal fee, permits members to bid on an unlimited number of vehicles at the same time.

Copart allows individuals to bid and purchase salvaged vehicles. However, state laws determine the specific requirements for purchasing the vehicles. States most commonly limit vehicle purchases to licensed dealers. Figure 2 shows the business licensing requirement for each state. Nineteen states, which are shaded in dark blue, do not require that purchasers have a valid business license. Eight states, shaded in light blue, have multiple licensing requirements regarding vehicle purchases. The remaining 23 states and the District of Columbia require vehicle purchasers to possess business licenses before they make a purchase from a Copart auction. Those states are shaded grey.



**Figure 2** License Requirements for Purchasing Salvage Vehicles

Because several states do not allow individuals to purchase the vehicles, Copart members can enlist the services of brokers. Copart offers a list of registered brokers licensed to bid on and purchase vehicles. Prior to bidding, customers choose a broker that is licensed to bid in their state of residence and then contact them to register for their services. Once the potential buyer has made those arrangements, they receive a member number from Copart based on the broker’s license. Then, the member is permitted to bid on the auctions.

Copart offers various data to inform customers about the vehicles they are bidding on. Copart provides vehicle reports which allow buyers to inspect the vehicle title history; current liens; insurance reports regarding total loss; odometer readings, including whether the odometer has been tampered with; the type of previous usage, such a rental, lease, or fleet; as well as any damage reports linked to the VIN; or safety

recalls. Buyers also have access to reports about the market value of the vehicle as well as comparison reports for similar vehicles. For an additional price, buyers can access additional photos, videos, and details on the vehicle damage. Each listing provides a lot number for the vehicle so that potential bidders can see the vehicle in person or hire an independent inspector to assess its condition.

Once a bidder wins an auction, they can pay by cashier's check, money order, wire transfer, company check, online payment, and even personal credit or debit card. The winning bidder then arranges for vehicle pickup, which Copart offers upon request. A complimentary storage period is available to customers, but fees accrue after that time expires. If the winning bidder cannot arrange pickup in person, they can also arrange to have a third party provide pickup and delivery.

### **1.5 Rebuilt and Salvage Titling in Kentucky**

Kentucky has multiple statutes and administrative regulations that govern rebuilt and salvage vehicle titling. Under KRS 186A.510, a rebuilt vehicle is a one which previously had a salvage-branded title that has been reconstructed to roadworthy condition. A roadworthy vehicle can safely operate on Kentucky highways and transport passengers and property pursuant to KRS 189 requirements for vehicle equipment.

KRS 186A.520 governs the conditions for issuance of salvage titles and operation of salvage titles in Kentucky. In Kentucky, a vehicle is declared salvage when the total cost of parts and labor to repair the vehicle is in excess of 75 percent of the retail value of the vehicle, as determined by the National Automobile Dealers Association (NADA) guide. The cost of parts is determined by the retail cost of the parts that will be used to rebuild the vehicle. The labor for repairing the vehicle is based on the cost of labor per hour as well the length of time normally required to make repairs of that type in the geographical location where the vehicle will be rebuilt. Dealers must submit a salvage title application within 15 days of taking possession of a vehicle along with the current title and lien documents at the county clerk's office in their county of residence. The clerk makes a copy of those documents and submits the original documents to DVR. Vehicles with salvage titles cannot be driven on Kentucky highways unless the vehicle is en route to undergo the required inspection for the rebuilt title. The inspection referred to in KRS 186A.500 is described in 186A.115.

KRS 186A.530 pertains to the titling of rebuilt vehicles. This statute permits DMVL to issue rebuilt vehicle titles for vehicles previously declared un-rebuildable in another state. To alert future consumers they are buying a rebuilt vehicle, the vehicle must have a metal plate affixed to the driver's side door which reads "REBUILT VEHICLE — May not be eligible for title in all states." Dealers selling a vehicle with a rebuilt title must also disclose this fact in 10-point, bold face font on a background of obviously different color with the words "THIS IS A REBUILT VEHICLE." The dealer must also disclose this to buyers on a notification form approved by DVR. Disclosure information is also be provided in the top section of the title application and informs the buyer that the vehicle is a rebuilt vehicle. If the dealer fails to notify the buyer that a vehicle is rebuilt, the sale can be voided up to 45 days after purchase. These requirements do not apply to vehicles over 10 years in age.

This statute requires insurance companies to retitle vehicles as salvage if damage from an accident exceeds the threshold of 75 percent. Insurance companies are legally permitted to pay claims on salvaged vehicles where ownership is not transferred to the insurance companies, such as cases where the owner is able to keep possession of the vehicle following the payout of a claim. However, the insurance company cannot pay the claim until the vehicle's owner has retitled the vehicle as salvage. The owner must take this step within three days of the insurance settlement. In addition, insurance companies are required to insure rebuilt vehicles titled in Kentucky.

KRS 186A.530 mandates an inspection by a certified sheriff inspector for all rebuilt vehicles during the title application process. Sheriff inspectors are certified through the Commonwealth of Kentucky.



Registrants pay \$5 for each vehicle inspected and the owner must provide a valid operator's license. The specific inspection requirements are described in KRS 186A.115.

601 KAR 9:200 is the administrative regulation for the registration and titling of rebuilt or salvage motor vehicles. It is based on the statutory authority of KRS 186A.530, which provides the established processes for titling salvage and rebuilt vehicles for Kentucky. The regulation also establishes the process for ensuring that out-of-state salvage or rebuilt titles are differentiated from any other salvage or rebuilt brands on the title.

### **1.6 Process for Titling a Salvage or Rebuilt Vehicle in Kentucky**

Once a salvaged vehicle is purchased through a third-party service like Copart or a private sale, the vehicle must be titled to operate or be transported on a Kentucky road. Many of the title processing steps align with AAMVA's best practices. For a vehicle to be titled, the owner must present photo identification, proof of automobile insurance, and submit a completed Application for Kentucky Certificate of Title or Registration (TC 96-182) to the county court clerk. Figure 3 is an image of TC-182. The title application is used for new vehicles as well as salvage and rebuilt vehicles. The title asks for vehicle condition, sale price, lien holder information, and ownership information. TC-182 also includes a box for inspector certification when a vehicle title is transferred from out-of-state or a registrant is titling a rebuilt vehicle.



Kentucky Transportation Cabinet
Division of Motor Vehicle Licensing

TC 96-182
10/2015

APPLICATION FOR KENTUCKY CERTIFICATE OF TITLE OR REGISTRATION

Check the type of application desired [ ] Duplicate [ ] Title Only [ ] Transfer [ ] First Time [ ] Salvage [ ] Classic
If Duplicate is checked, the original Certificate of Title is: [ ] Lost [ ] Destroyed [ ] Damaged [ ] Illegible [ ] Other

Vehicle Identification Section
VIN \_\_\_\_\_ Make \_\_\_\_\_
Year \_\_\_\_\_ Body Style \_\_\_\_\_ Model \_\_\_\_\_ Model No. \_\_\_\_\_ Color \_\_\_\_\_
Motor No. \_\_\_\_\_ Cylinders \_\_\_\_\_ Truck Weight \_\_\_\_\_
(if motorcycle)

CERTIFIED INSPECTOR SECTION
I, (Certified Inspector - Print Name) \_\_\_\_\_
of \_\_\_\_\_ County, Phone No. \_\_\_\_\_
do certify under the penalty provisions of KRS 186A.115(4)(d) that I have physically inspected
the vehicle described herein to be roadworthy and that the supporting documents are
consistent with the vehicle description.
THE VEHICLE HAS AN ODOMETER READING OF \_\_\_\_\_ NO TENTHS
THE VEHICLE IDENTIFICATION NUMBER IS: \_\_\_\_\_

TITLE BRAND DISCLOSURE
Check appropriate block if: [ ] Rebuilt Vehicle [ ] Water Damage
If block is checked and title does not include brand, provide
jurisdiction \_\_\_\_\_ and title number \_\_\_\_\_ if previous brand was
issued.

INSPECTION REQUESTED
BY \_\_\_\_\_
OWNER DRIVER LICENSE NO. & STATE \_\_\_\_\_

ODOMETER DISCLOSURE \*\*\*\*CAUTION READ CAREFULLY BEFORE YOU CHECK A BLOCK\*\*\*\*
49 USC Sec. 32705 and KRS 190.300 require that you state the mileage upon transfer of ownership. Failure to complete or providing a false statement may result in fines and
or imprisonment. I certify to the best of my knowledge that the odometer reading is the actual mileage of the vehicle unless one of the following statements is checked.
\_\_\_\_\_ (no tenths) Odometer Reading [ ] 1. The mileage stated is in excess of its mechanical limits.
[ ] 2. The odometer reading is not the actual mileage. WARNING - ODOMETER DISCREPANCY.

TOTAL CONSIDERATION AND TRADE-IN INFORMATION

Table with 4 columns: Sale Price \$, Trade In \$, Net Cost \$, Tax \$

Table with 4 columns: Date of Sale, Make, Year, VIN No., Title No.

JOINT OWNERSHIP: [ ] OR [ ] AND NOTE: If neither box is checked the Title Transfer shall require both signatures

NAME OF SELLER \_\_\_\_\_ DEALER NO. \_\_\_\_\_

NAME OF OWNER/BUYER \_\_\_\_\_ S.S.#, KyDL#, or Govt. issued # \_\_\_\_\_ BIRTH MO. \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_ PHONE NO. \_\_\_\_\_

NAME OF OWNER/BUYER \_\_\_\_\_ S.S.#, KyDL#, or Govt. issued # \_\_\_\_\_ BIRTH MO. \_\_\_\_\_

CITY \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

STREET ADDRESS \_\_\_\_\_ PHONE NO. \_\_\_\_\_

EMAIL ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

I [ ] (have) [ ] (have not) applied for a loan in connection with the vehicle described herein and if not, I [ ] (will) [ ] (will not) apply for a loan within 30 days of this application.

LESSEE NAME OR OTHER \_\_\_\_\_

FIRST LIENHOLDER \_\_\_\_\_

LESSEE ADDRESS \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ COUNTY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

COUNTY LIEN TO BE FILED IN \_\_\_\_\_

SELLER'S SIGNATURE \_\_\_\_\_

OWNER/BUYER(S) SIGNATURE(S) \_\_\_\_\_

SELLER'S SIGNATURE \_\_\_\_\_ DATE OF TRANSFER \_\_\_\_\_

OWNER/BUYER(S) SIGNATURE(S) \_\_\_\_\_

Attesting Official \_\_\_\_\_ Title \_\_\_\_\_
Subscribed and attested before me this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_
My commission expires \_\_\_\_\_

Attesting Official \_\_\_\_\_ Title \_\_\_\_\_
Subscribed and attested before me this \_\_\_\_\_ day of \_\_\_\_\_ 20 \_\_\_\_\_
My commission expires \_\_\_\_\_

COUNTY CLERK USE ONLY


Table with 4 columns: TYPE APPLICATION, DATE OF ISSUANCE, TITLE NO., PLATE NO.

I certify subject to the penalty provisions of KRS 190.990(5) that I have reviewed this application and the documents supporting it and that the same are present and consistent with this application; that I received the application on the date and
time indicated hereon and that fees were collected as indicated. I further certify that the required information has been entered into the automated vehicle identification system (AVIS).

SIGNATURE & TITLE OF ISSUER \_\_\_\_\_ COUNTY \_\_\_\_\_ DATE \_\_\_\_\_

Figure 3 TC 96-182 Application for Kentucky Certificate of Title or Registration

For a rebuilt title, the owner must also complete the Affidavit of Motor Vehicle Assembled from Wrecked or Salvaged Motor Vehicles (TC 96-215). Figure 4 depicts this form. The owner must indicate the motor vehicle was reconstructed from parts salvaged from other vehicles and then specify from where parts were sourced from. In addition, the person that repaired the vehicle must provide a notarized statement detailing the repairs made as well as the parts used to rebuild the vehicle. The registrant must provide documentation of the original damage. Acceptable documentation includes a letter from the insurance company or the receipt from the auction containing the details of the vehicle damage. Sometimes parts are purchased from an individual as opposed to a business, so the seller's name, address, and telephone number must be provided to DMVL agents with the application. TC 96-215 must be notarized before it is processed. The owner also has to submit the original salvage title for the vehicle.



Kentucky Transportation Cabinet  
 Division of Motor Vehicle Licensing

**AFFIDAVIT OF MOTOR VEHICLE ASSEMBLED FROM  
 WRECKED OR SALVAGED MOTOR VEHICLES**

**(Complete and forward to your County Clerk or Submit in person to the Kentucky Transportation Cabinet  
 One Stop Shop, Rebuilt Section.) Application may not be processed the same business day.**

P.O. Box 2014 Frankfort, KY 40622-2014  
 In compliance with KRS 186A.520 and KRS 186A.530

TC 96-215  
 09/2018

COMMONWEALTH OF KENTUCKY, COUNTY OF \_\_\_\_\_

The affiant, \_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Street Address or P.O. Box)      \_\_\_\_\_  
(City and Zip Code)      \_\_\_\_\_  
(Email Address)

Kentucky, states that a motor vehicle has been reconstructed from parts taken from other motor vehicles which have been obtained from:

\_\_\_\_\_

\_\_\_\_\_

VEHICLE DESCRIPTION				
Vehicle Identification Number	Make	Model No.	Body Style	Model Year

If Motorcycle – Motor Number: \_\_\_\_\_

and that he/she is the sole owner of the motor vehicle which has been thus produced, which is clear of all liens.

Signed \_\_\_\_\_  
(Affiant)      \_\_\_\_\_  
(Title)

Subscribed and attested before me on this date \_\_\_\_\_, My commission expires \_\_\_\_\_  
MM DD YY      MM DD YY

\_\_\_\_\_  
(Attesting Official or Notary Signature and Title)

**Penalties KRS 186A.990:**  
 Any person who knowingly gives false, fraudulent, or erroneous information in connection with an application for the registration, and when required, titling of a vehicle, or any application for assignment of a vehicle identification number, or replacement documents, or gives information in connection with his review of applications, or falsely certifies the truthfulness and accuracy of information supplied in connection with the registration and when required, titling of a vehicle, shall be guilty of forgery in the second degree.

**Figure 4** 96-215 Affidavit of Motor Vehicle Assembled from Wrecked or Salvaged Motor Vehicles

If the owner cannot present the original certificate of title, the seller must provide a notarized statement which serves as proof of ownership and present a history of the vehicle. The statement must include the length of ownership, where it was purchased, dates and locations where it was licensed, and indicate there are no liens against the vehicle.

*Inspections for Rebuilt Vehicles*

Prior to titling a rebuilt vehicle, the registrant must have the vehicle inspected by a certified sheriff's inspector. The inspection can generally be conducted at any number of sites, including county clerk offices, sheriff offices, and courthouses. The inspectors are civilians.

Once the vehicle arrives for inspection, the owner provides the application for title as well as proof of insurance and their driver's license. The inspection includes multiple steps to ensure the roadworthiness of the vehicle and confirm it is not the product of theft. The inspector visually verifies the application to ensure it is legible. The inspection includes an examination of the VIN plate(s), to ensure that it matches the federal safety standards label on the vehicle, as well as the VIN on the title application, to ensure the plate appears legitimate. The inspector checks the vehicle to ensure it is safe for highway operation; confirm its roadworthiness; and check the brakes, steering, headlights, brake lights, windshield wipers, level of window tinting, rear lights, and turn signals to ensure they are in working condition. KRS 186A.115 requires the inspector to check the odometer to ensure it has not been tampered with; they record the mileage on TC 96-182. Figure 5 shows the Certified Inspector Section located on TC 96-182. The document must contain the instructor's name, the county, their phone number, a signature, inspector number, and the vehicle data inspected. The certificate also includes sections for the VIN, odometer reading, and the name of the person who requested the inspection.

<b>CERTIFIED INSPECTOR SECTION</b>																															
I, (Certified Inspector – Print Name) _____																															
of _____ County, Phone No. _____																															
do certify under the penalty provisions of KRS 186A.115(4)(d) that I have physically inspected the vehicle described herein to be roadworthy and that the supporting documents are consistent with the vehicle description.																															
THE VEHICLE HAS AN ODOMETER READING OF _____ NO TENTHS																															
<b>THE VEHICLE IDENTIFICATION NUMBER IS:</b>																															
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INSPECTION REQUESTED																															
BY _____																															
OWNER DRIVER LICENSE NO. & STATE _____																															
_____																															
CERTIFIED INSPECTOR'S SIGNATURE										INSPECTOR NO.			DATE																		

**Figure 5** Inspectors Certificate for Rebuilt Vehicles

*Title Issuance Process*

KTC shadowed a DMVL agent as they processed rebuilt title applications. DMVL agents work to decrease fraud by carefully examining applications and documents for irregularities. The process for obtaining a rebuilt title begins at the county clerk's office in the registrant's county of residence, where they submit form TC 96-281. The county clerk scans the document into the KAVIS system, which lets DMVL agents in Frankfort access the document and verify its accuracy. To rebuild and sell a vehicle, the registrant must be a certified dealer. The registrant must be a resident of Kentucky for at least six months of the year. Many customers go to the One Stop Shop at the Kentucky Transportation Cabinet to complete the application

process after submitting their application at the county clerk's office. Businesses also pay runners to pick up and deliver the paperwork from Frankfort. Runners often provide this service for multiple dealers.


Once the individual arrives at the agent's window at the One Stop Shop, they present the documentation for review. First, the agent accesses the application in KAVIS. The agent reviews the completed, signed, and notarized TC 96-215 and the TC 96-182. The agent examines the inspection certification to confirm the VIN on the form matches the VIN on the title and paperwork. Then the agent examines the notarized labor statement as well as the original receipts and VINs on the parts. These steps are undertaken to ensure the vehicle was not stolen or the product of a chop shop. As an added step to detect fraud, agents compare the repairs made to the vehicle with the damage reported on the vehicle's Copart listing by using the lot number on the Copart website. If the repairs do not match the repairs that would be needed for the salvaged vehicle when it was purchased from Copart, the application is denied and the registrant must make those repairs before a title can be issued. The agent views photographs of the vehicle before and after the repairs were made. The agent also confirms the registrant included the salvage title for the vehicle in the application.

Once all of the documents have been reviewed and data have been entered in KAVIS, the agent scans each document into the database and a letter is produced. Assuming that a registrant has all of the necessary supporting documents, this process can take as few as two to three minutes. The registrant then goes to their local county clerk to present the letter and obtain a new title. Figure 6 and 7, respectively, show the blue title for in-state salvage and rebuilt vehicles and the out-of-state rebuilt and salvage title in red. Note the wording at the top of the red salvage/rebuilt title, which states a vehicle may not be eligible for titling in all states.

**COMMONWEALTH OF KENTUCKY  
CERTIFICATE OF TITLE**

TITLE NO. 172970580050	YEAR 08	MAKE GMC	MODEL NAME YUKON	VIN/HIN 1GKFK63838J157508	TITLE TYPE DUPLICATE	MODEL NO. 151660970007
BODY TYPE 4D	COLOR RED	NO. CYL. 08	ODOMETER 94856	MOTOR NO. 6	PREV. TITLE NONSTATE	151660970007 KY
KY NO.	BOAT TYPE	LENGTH	BEAM	CAPACITY	HULL MATERIAL	PROPULSION


DATE OF ISSUE 10/24/17 FUEL USAGE TAX PAID 894.00

OWNER(S) NAME  
  
 KALL, DUSTIN S  
 2747 KY ROUTE 40 E  
 PAINTSVILLE KY 41240-8614

REMARKS  
 BRAND(S)

FIRST LIEN		SECOND LIEN		SECOND LIENHOLDER
Number/Id 1501251	County JOHN	Location/Id GARY		
Filing Date 06-18-15		Filing Date		
Revised By		Interest Is		
County Commission/Title		County Commission/Title		

I certify that the Department of Vehicle Regulation has exercised due diligence in examining an application for a certificate of title for the above described vehicle and to the best of our knowledge and belief the applicant whose name appears above is the lawful owner of the currently legitimate vehicle described herein.

CONTROL No. C25696839

Commissioner, Department of Vehicle Regulation, Kentucky Transportation Cabinet  
 \*\*\* TRANSFER OF TITLE BY OWNER - 4 USG SOL. 3783 AND KRS 196.344 REQUIRE THAT YOU STATE THE VEHICLE RELEASE IN CONNECTION WITH THE TRANSFER OF OWNERSHIP. FAILURE TO COMPLETE, OR PROVIDING A FALSE STATEMENT, MAY RESULT IN PENALTIES \*\*\*

**FIRST DEALER ASSIGNMENT**

The undersigned owner hereby certifies that the vehicle described in this title has been transferred to the following (print name and address of transferee/buyer):

I certify to the best of my knowledge that the odometer reading is the actual mileage of the vehicle unless one of the following statements is checked

\*\*\*CAUTION READ CAREFULLY BEFORE YOU CHECK A BLOCK\*\*\*

1. The mileage stated is in excess of its mechanical limits.  
 2. The odometer reading is not the actual mileage. WARNING — ODOMETER DISCREPANCY

Odometer Reading \_\_\_\_\_

Transferor/Seller Signature \_\_\_\_\_ Transferee/Buyer Signature \_\_\_\_\_

Transferor/Seller Printed Name \_\_\_\_\_ Transferee/Buyer Printed Name \_\_\_\_\_

Date of Transfer \_\_\_\_\_ Seller/Dealer No. \_\_\_\_\_ Buyer/Dealer No. \_\_\_\_\_

Subscribed and attested before me on this date \_\_\_\_/\_\_\_\_/\_\_\_\_ My Commission expires \_\_\_\_/\_\_\_\_/\_\_\_\_

Signature/Title \_\_\_\_\_

**SECOND DEALER ASSIGNMENT**

The undersigned owner hereby certifies that the vehicle described in this title has been transferred to the following (print name and address of transferee/buyer):

I certify to the best of my knowledge that the odometer reading is the actual mileage of the vehicle unless one of the following statements is checked.

\*\*\*CAUTION READ CAREFULLY BEFORE YOU CHECK A BLOCK\*\*\*

1. The mileage stated is in excess of its mechanical limits.  
 2. The odometer reading is not the actual mileage. WARNING — ODOMETER DISCREPANCY

Odometer Reading \_\_\_\_\_

Transferor/Seller Signature \_\_\_\_\_ Transferee/Buyer Signature \_\_\_\_\_

Transferor/Seller Printed Name \_\_\_\_\_ Transferee/Buyer Printed Name \_\_\_\_\_

Date of Transfer \_\_\_\_\_ Seller/Dealer No. \_\_\_\_\_ Buyer/Dealer No. \_\_\_\_\_

Subscribed and attested before me on this date \_\_\_\_/\_\_\_\_/\_\_\_\_ My Commission expires \_\_\_\_/\_\_\_\_/\_\_\_\_

Signature/Title \_\_\_\_\_

DO NOT ACCEPT TITLE SHOWING ANY ERASURES, ALTERATIONS OR MUTILATIONS

Figure 6 Clean Title for Kentucky

**COMMONWEALTH OF KENTUCKY**  
**CERTIFICATE OF TITLE**  
**MAY NOT BE ELIGIBLE FOR TITLING IN ALL STATES**

TITLE NO. 173260340370	YEAR 13	MAKE DODG	MODEL NAME CHARGE	VIN/VIN 2C3CDXBG2DH549936	TITLE TYPE TRANSFER	MODEL NO.
BODY TYPE 4D	COLOR BLK	NO. CYL 06	ODOMETER 56446	NOTOR. NO.	PREV. TITLE NO./STATE 172620340394 KY	
KY NO.	BOAT TYPE	LENGTH	BEAM	CAPACITY	HULL MATERIAL	PROPULSION

DATE OF ISSUE **11/27/17** FUEL \_\_\_\_\_ USAGE TAX PAID **0.00**

OWNER(S) NAME  
**OMAR AUTO CENTER, LLC**  
**652 W SECOND STREET**  
**LEXINGTON KY 40508-1262**

REMARKS:  
**\*\*\* REBUILT VEHICLE \*\*\***

BRAND(S)

FIRST LIENHOLDER	FIRST LIEN	SECOND LIEN	SECOND LIENHOLDER
	Mortgage Release Date Release By County Clerk Use Only	Mortgage Release Date Release By County Clerk Use Only	

I certify that the Department of Vehicle Regulation has sponsored our diligence in examining an application for a certificate of title for the above described vehicle and to the best of our knowledge and belief the applicant whose name appears above is the lawful owner of the above described vehicle described herein.

*Justin*

Commissioner, Department of Vehicle Regulation, Kentucky Transportation Cabinet

CONTROL NO. **00114949**

**FIRST DEALER ASSIGNMENT**

The undersigned owner hereby certifies that the vehicle described in this title has been transferred to the following (print name and address of transferee/buyer):

I certify to the best of my knowledge that the odometer reading is the actual mileage of the vehicle unless one of the following statements is checked:

**CAUTION READ CAREFULLY BEFORE YOU CHECK A BLOCK**

1. The mileage stated is in excess of its mechanical limits.  
 2. The odometer reading is not the actual mileage. **WARNING — ODOMETER DISCREPANCY**

Transferor/Seller Signature \_\_\_\_\_ Transferee/Buyer Signature \_\_\_\_\_  
 Transferor/Seller Printed Name \_\_\_\_\_ Transferee/Buyer Printed Name \_\_\_\_\_  
 Date of Transfer \_\_\_\_\_ Seller/Dealer No. \_\_\_\_\_ Buyer/Dealer No. \_\_\_\_\_  
 Subscribed and attested before me on this date \_\_\_\_\_ My Commission expires \_\_\_\_\_

**SECOND DEALER ASSIGNMENT**

The undersigned owner hereby certifies that the vehicle described in this title has been transferred to the following (print name and address of transferee/buyer):

I certify to the best of my knowledge that the odometer reading is the actual mileage of the vehicle unless one of the following statements is checked:

**CAUTION READ CAREFULLY BEFORE YOU CHECK A BLOCK**

1. The mileage stated is in excess of its mechanical limits.  
 2. The odometer reading is not the actual mileage. **WARNING — ODOMETER DISCREPANCY**

Transferor/Seller Signature \_\_\_\_\_ Transferee/Buyer Signature \_\_\_\_\_  
 Transferor/Seller Printed Name \_\_\_\_\_ Transferee/Buyer Printed Name \_\_\_\_\_  
 Date of Transfer \_\_\_\_\_ Seller/Dealer No. \_\_\_\_\_ Buyer/Dealer No. \_\_\_\_\_  
 Subscribed and attested before me on this date \_\_\_\_\_ My Commission expires \_\_\_\_\_

**DO NOT ACCEPT TITLE SHOWING ANY ERASURES, ALTERATIONS OR MUTILATIONS**

Figure 7 Salvage/Rebuilt Title for Kentucky



### **1.7 Challenges with Salvage and Rebuilt Titles in Kentucky**

Kentucky has instituted many requirements during the rebuilt titling process to protect consumers. These requirements reflect AAMVA best practices. Kentucky carries forward brands from other states, and the titles for salvage and rebuilt titles are clearly differentiated from non-branded titles. The title application process includes recording VINs located on the vehicle as well as the VINs on parts used to reconstruct the vehicle. DVR preserves all of the documents received during the application process, including the inspector's certificate. Dealers and sellers must also disclose that a vehicle is rebuilt, and the vehicle must contain metal plates that mark the vehicle as a rebuilt vehicle.

Kentucky also provides information to the public on rebuilt vehicle awareness so individuals understand the potential pitfalls of knowingly or unknowingly purchasing one of these vehicles. Kentucky's drive.ky.gov website contains a consumer warning about purchasing rebuilt vehicles. The site warns consumers that as a result of hurricanes, the department receives a large number of rebuilt title applications for flooded vehicles. The website gives consumers tips on protecting themselves against rebuilt fraud. Tips include examining the vehicle history report and obtaining an inspection from a knowledgeable mechanic. Consumers are also warned that lenders and insurance underwriters in other states may not provide services for vehicles with rebuilt titles. In addition, consumers are told that rebuilt vehicles may not be legally sold or titled in other states. If a vehicle with a rebuilt title is detained by law enforcement in a state that does not sanction their operation, the car may be confiscated and scrapped.

However, the title process for rebuilt vehicles presents many challenges for DMVL, particularly with respect to safety. Experts in DMVL and KSP describe the rebuilt vehicle inspection requirements as lax and argue it encourages individuals to take advantage of the fact Kentucky will transfer vehicle titles branded as salvage in other states. Vehicles which are issued rebuilt titles may remain in the state. But most are titled as salvage in Kentucky, taken outside the state to be rebuilt, re-titled as rebuilt in Kentucky, and then taken back out of state. DMVL management estimates that 90 percent of these vehicles are no longer in Kentucky. This results in a significant revenue losses because registrants pay the title fees, but the state never receives property taxes for the vehicles. In addition, some rebuilders pay Kentucky residents to file the paperwork for a rebuilt title using their address and take the vehicle in for inspection to skirt the requirement that titles are only issued to people who reside in Kentucky.

Less-than-rigorous inspection criteria make it easier for criminals to rebuild stolen vehicles and obtain a title. There is a problem with criminals stealing cars and rebuilding them with parts of similar models. In an interview with KSP, vehicle theft and rebuilt titling were cited as significant concerns. Vehicle theft is a serious crime, one that is difficult to solve because the victim usually cannot identify the perpetrator. Vehicle theft is expensive and prevalent. In 2017, 12,608 vehicles with a total value of \$103,975,384 were reported as stolen (KSP, 2017). Seventy-one percent of the vehicles were recovered, but the value of the 4,082 vehicles not recovered totaled \$31,694,513 (KSP, 2017). The vast majority of thefts were of automobiles. Nationally, there were 773,139 motor vehicle thefts in the United States with a total loss estimated at over \$6 billion (FBI, 2017). Most vehicles were valued at less than \$8,000. Similar to the state figures, over 75 percent of the thefts were automobiles (FBI, 2017).

Vehicles may be stolen for a variety of reasons. In some cases, a vehicle is simply stolen for a joyride and abandoned. Criminals may steal a vehicle and sell it quickly for profit. In other cases, a vehicle is stolen, taken apart, and the parts are sold individually for profit. This activity generally takes place in so-called chop shops. Often these activities are conducted by criminal gangs throughout the United States. There are also more complicated organized car thefts which involve stealing high end American or European vehicles and exporting them abroad. The proceeds from these theft rings have been linked to organized crime as well as terrorist syndicates.

Vehicle inspectors receive training every four years to learn how to identify VINs and odometers that have been tampered with. KSP experts say inspectors are dedicated to ensuring the safety of these vehicles, but inspectors are not required to have expertise in rebuilt vehicles. As a result, some inspectors have more knowledge of vehicles than others, and vehicles that may be unsafe or stolen may pass an inspection. In addition, inspectors may be civilians who have other responsibilities and lack adequate time to spend on a thorough inspection. It is also permissible for people to have their vehicles inspected in other counties. So, there is an issue with registrants inspection jumping — having their vehicles inspected in counties rumored to not be as thorough in their inspections. However, it should be noted that it is perfectly reasonable for a registrant to go to another county if they want to save time.

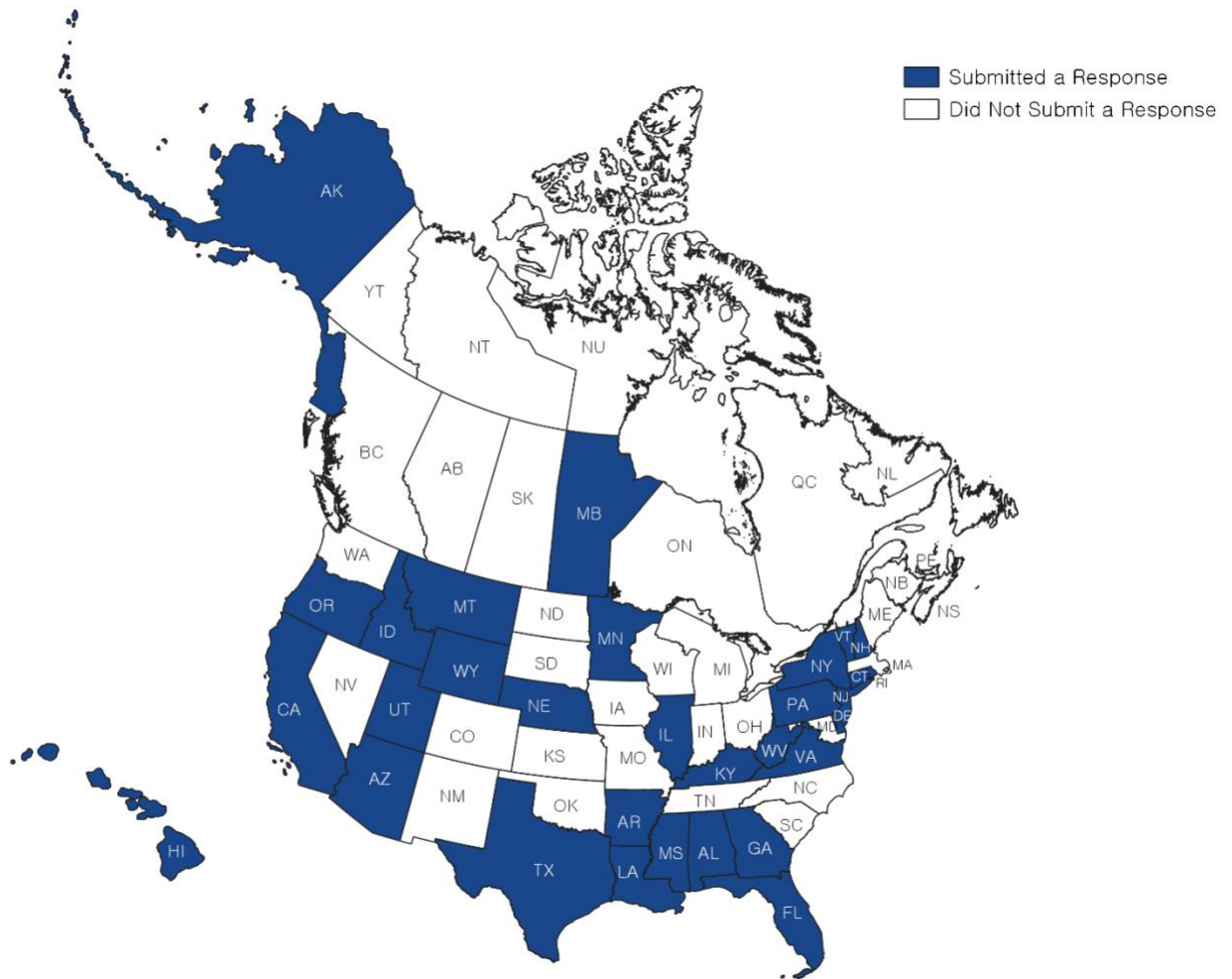
If an inspector suspects that a vehicle has been stolen or there is an issue with a title, the inspector will call officers to investigate the issue. KSP informants say that after each training session, they receive an increase in calls from deputies about fraud detected during the inspection process. In these cases, investigators obtain a search warrant and track the vehicle down to conduct further investigations. KRS 186.330 describes law enforcement's responsibility in these cases. Investigators must arrest anybody that is in violation of that law and seize vehicles, vehicle parts, and any property, such as tools, that are used in the crime.

Many rebuilt cars may end up on used car lots or they may be sold on the private market. In the case of stolen vehicles, law enforcement confiscates the vehicle. In many of these cases, an individual has saved a significant amount of money in purchasing a vehicle, not knowing that it is stolen, and they lose their car. KSP investigators say the real victims of the lax rebuilt laws are low-income individuals who often resort to purchasing these vehicles. In many cases, individuals save a significant amount of money to purchase a vehicle only to lose that investment through confiscation.

To prevent stolen vehicles from entering the used vehicle market and to ensure the safety of rebuilt vehicles sold in the Commonwealth, DMVL would like to amend statutes to strengthen the inspection process. Inspections would be conducted by a uniformed officer. A mechanical inspection would be performed by a certified mechanic. This would require higher inspection fees and likely require KSP to hire additional staff. The following chapters discuss the inspection policies of other states and the impact DMVL's proposed changes could have on car dealers and the rebuilt industry in Kentucky.

## 2. Survey

KTC researchers created a survey that was distributed to the 50 US states and 13 Canadian provinces and territories. The purpose of the survey was to acquire information on the processes used by jurisdictions to title salvage and rebuilt vehicles. The survey contained 12 substantive questions, which asked about types of vehicle brands, title transfer processes, rebuilt titling criteria, and the insurance requirements for rebuilt vehicles. Question formats included multiple choice and open-ended response. Respondents were asked for their contact information as well as the contact information of rebuilt vehicle inspectors (if applicable). With the help of a DMVL official, in March 2019 the survey was distributed using AAMVA's online survey tool. It remained open for 36 days. Thirty-one jurisdictions submitted responses (57 percent response rate), however, not all participants answered every question. Participating and non-participating jurisdictions are mapped in Figure 8.

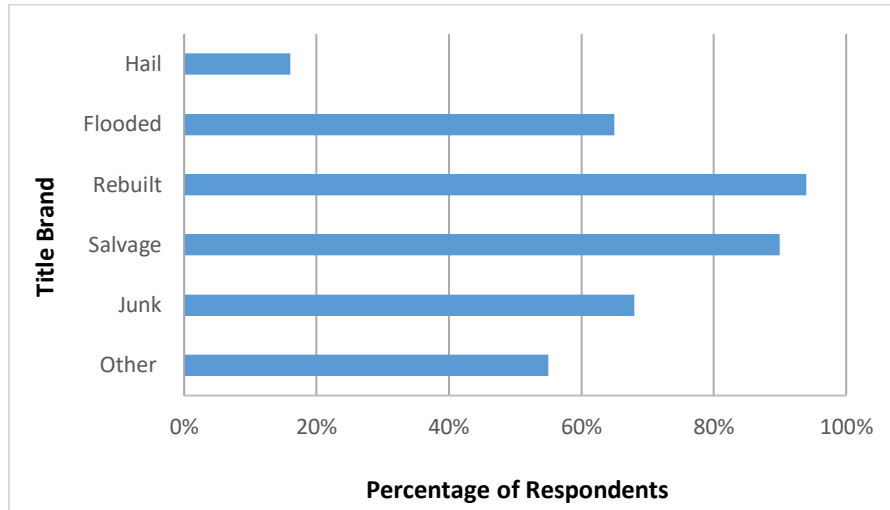


**Figure 8** AAMVA Jurisdictions that Submitted Responses to the Survey

### 2.1 Title Brands for AAMVA Jurisdictions

Question 1 asked respondents about the brands their motor vehicle agency use for vehicle titles. Kentucky uses the following brands: rebuilt, water, hail, rebuilt-water, rebuilt-hail, water-hail, rebuilt-water-hail brands. Respondents chose from five title brands: junk, salvage, rebuilt, flooded, and hail. Some respondents provided additional brand titles as well as an explanation for those brands. Thirty-one jurisdictions responded to this question. Almost all of the jurisdictions issue salvage and rebuilt titles.

Ninety percent of the jurisdictions issue salvage titles; 94 percent issue rebuilt titles. The remaining title brands were not as commonly used among the survey respondents. Sixty-eight percent of the jurisdictions issue titles with junk brands and 65 percent issue titles with flood brands. Only 16% issue titles with a hail brand.



**Figure 9** Title Brands Currently Used by Respondents

Some respondents provided additional brand types. Agencies use a wide variety of terms to indicate a vehicle was declared to be a total loss, meaning the repairs to the vehicle would exceed the market value of the same vehicle in roadworthy conditions (Table 1). Brands which indicate the vehicle is a total loss include junk, salvage, parts only, salvage parts, irreparable, or non-repairable. The main difference among the terms is the threshold at which a jurisdiction declares the vehicle a total loss. Additionally, the title definitions often specify if the damage to a vehicle is extensive enough to preclude it from being reconstructed and retitled for road use. Multiple terms are used for rebuilt vehicles. Restored salvage, revived junk, rebuilt, reconstructed, and assembled vehicle can all indicate a vehicle was reconstructed and retitled so it can be legally operated on jurisdictional highways.

**Table 1** Title Brands for Survey Responses

<b>Alaska</b>	Junked Reconstructed (rebuilt)	<b>Minnesota</b>	Reconstructed Lemon Law Prior Salvage
<b>Arizona</b>	Nonrepairable Restored Salvage Retrofit Refurbished Stolen Dismantle Reconstructed	<b>Mississippi</b>	Bond
<b>California</b>	Prior Taxi Prior Police Lemon Law Buyback Revived junk or salvaged (rebuilt)	<b>Nebraska</b>	Manufacturer Buyback Replica Reconstructed
<b>Connecticut</b>	Glider Kit True Mileage Unknown Exceeds Mechanical Limits Previously Branded in Another State Bonded Manufacturer Buyback Salvage Parts Only	<b>New Jersey</b>	Taxi Former Police Lemon
<b>Delaware</b>	Reconstructed Taxi	<b>Oregon</b>	Reconstructed
<b>Idaho</b>	Assembled Vehicle Specially Constructed Vehicle Replica Vehicle Street Rod Vehicle Replica Street Road Glider Kit	<b>Rhode Island</b>	Parts Only
<b>Louisiana</b>	Assembled Vehicle Certificate of Destruction Kit Car Water Damage	<b>Texas</b>	Salvage Vehicle Titles Nonrepairable Vehicle Titles Junk
<b>Manitoba, Canada</b>	Normal Salvageable Irrepairable Rebuilt	<b>Utah</b>	Manufacturer Buyback Non-repairable Reconstructed Salvage and Flood Salvage Flood/Restored Flood Salvage
		<b>Virginia</b>	Non-repairable Flooded/Water Damaged
		<b>West Virginia</b>	Hail Reconstructed/Rebuilt Stolen Unrecovered Theft

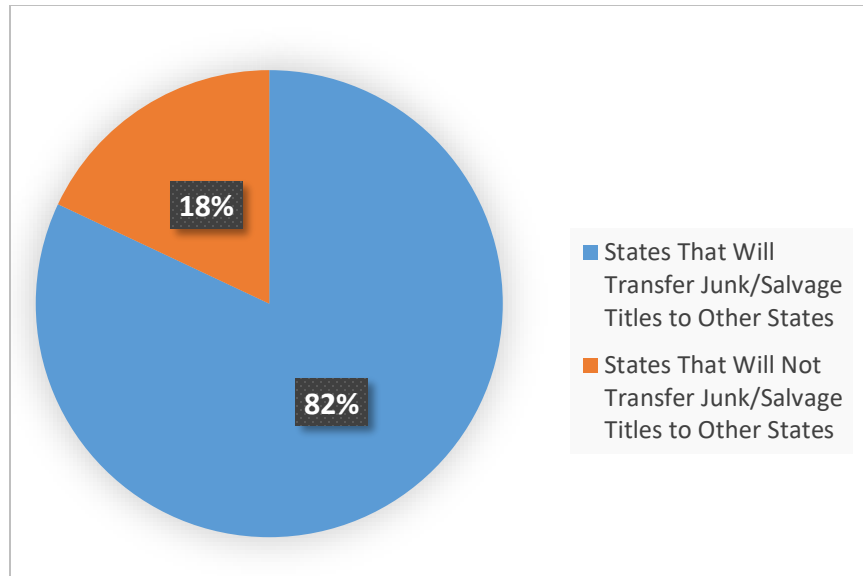
Open-ended responses contained unique title brands not available in all jurisdictions. California and New Jersey issue title brands for prior taxi and police vehicles. California uses these brands because such vehicles generally have high mileage. Some states, such as California, Minnesota, Nebraska, New Jersey, and Utah, issue lemon or manufacturer buyback branded titles. A new vehicle is deemed a lemon when it suffers from persistent mechanical defects which cannot be repaired after several attempts. Some agencies mandate that manufacturers purchase these vehicles back from the previous owner if the vehicle violates the state lemon laws. These titles are issued to vehicles which have been declared lemons and were purchased back from the owner by the manufacturer.

After reviewing the responses, it is apparent why many motor vehicle agencies have difficulty deciphering the various brands they may encounter in the process of carrying forward out-of-jurisdiction title brands. While AAMVA recommends using brands consistent with NMVTIS brands, it would be quite a task for jurisdictions to alter all of their statutes and regulations to implement this best practice.

## **2.2 Transferring Junk and Salvage Titles**

Question 2 and 3 asked jurisdictions to describe their title transfer policies. Kentucky lets owners transfer junk and salvage titles into the state, but DMVL is concerned this policy and lax inspections give people the chance to obtain titles for unsafe or stolen vehicles. Therefore, it is useful to know the transfer policies for branded titles in each jurisdiction.

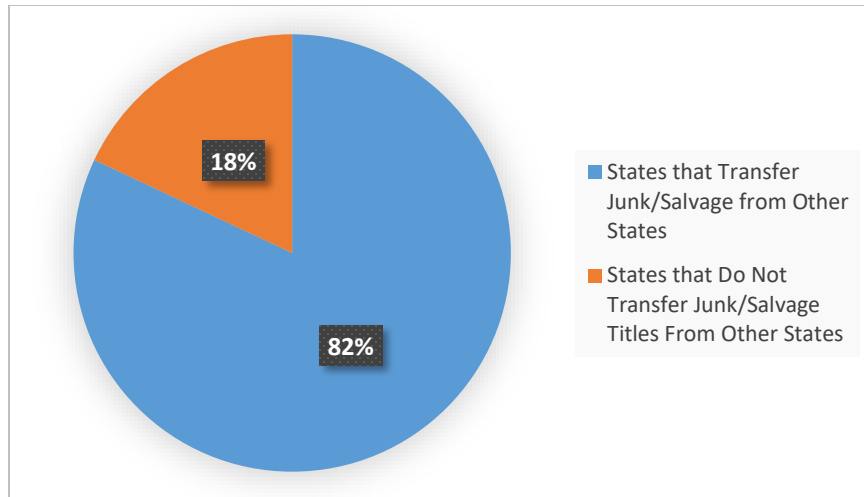
Question 2 asked jurisdictions if they allow owners to transfer titles from the respondent jurisdiction to another jurisdiction. This occurs when a person sells a salvage or junk vehicle to a resident from outside the jurisdiction. To ensure unsafe vehicles remain off highways permanently, a jurisdiction may preclude these title transfers. Most jurisdictions allow owners to transfer junk and salvage title vehicles to other jurisdiction. Eighty-two percent of the responding jurisdictions allow the title holder of junk or salvage vehicle in the respondent jurisdiction to transfer the title to an individual in another jurisdiction. Registrants in Arkansas, New Jersey, and Texas can transfer these titles as long as they are permitted by the laws, regulations, or procedure of the other state. Nebraska has both a salvage and junk title, with different policies for each. Here, if a vehicle has been dismantled and no longer resembles the vehicle on the title, the Certificate of Title must be surrendered to the County Treasurer or the DMV. In the case of a salvage vehicle where the insurance company has paid a total loss settlement, a Salvage Certificate of Title is issued in the name of the insurance company. A vehicle with a junk brand cannot be transferred to another jurisdiction, while salvage titles may be transferred. West Virginia also maintains separate junk and salvage titles. Here, a junk vehicle cannot be reconstructed and the title cannot be transferred to another jurisdiction. However, a salvage vehicle can be reconstructed and retitled as rebuilt following an inspection. New Hampshire allows salvage titles to be sold and transferred out-of-state, and this is typically done by insurance companies following payment of a total loss settlement. Utah allows owners to transfer salvage title vehicles to buyers from out-of-state as long as the salvage brand on the title is disclosed to the purchasers.



**Figure 10** Transferring Junk and Vehicle Titles to Other Jurisdictions

Question 3 asked AAMVA jurisdictions if owners could legally transfer a junk or salvage title vehicle from another jurisdiction into the responding jurisdiction. Twenty-eight jurisdictions responded to this question. Eighty-two percent of the jurisdiction allow an owner to transfer a junk or salvage titled vehicle. However, many of the jurisdictions will transfer a salvage title but not a junk title. The main difference among jurisdictions appears to be the distinction between whether a vehicle was eligible for reconstruction or deemed beyond a condition which would make it safe for future highway use.

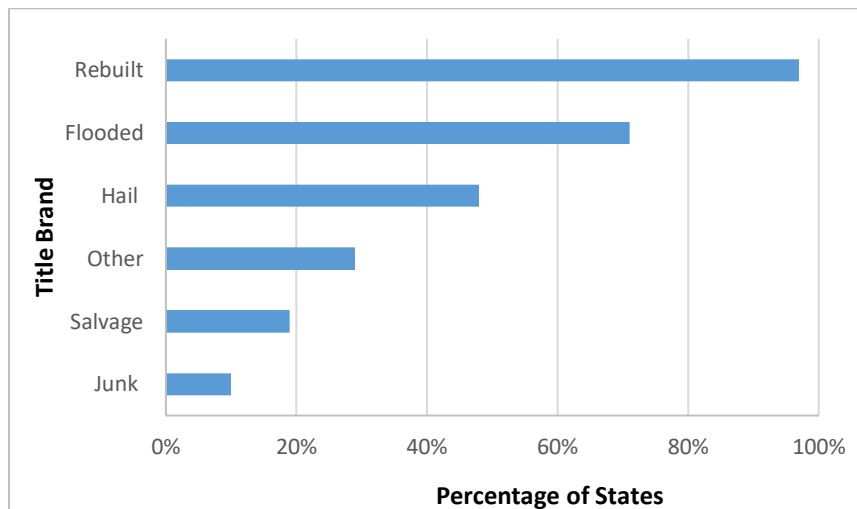
Alaska lets registrants to transfer branded titles into Alaska from another state but under certain conditions. Alaska utilizes the NADA Guide to determine if the brand from the outside jurisdiction is the equivalent of Alaska’s Junked or Reconstructed brands. If making this determination is difficult based on Alaska law, the state requires the vehicle to undergo an inspection. If the brand indicates the vehicle was branded as dismantled, parts only, or not street legal — which makes the vehicle ineligible for titling, — the motor vehicle agency takes additional steps internally to prevent the applicant from office shopping to obtain a title for an ineligible vehicle at another motor vehicle agency in Alaska. Mississippi will not retitle a junk vehicle title but will transfer a salvage title vehicle once it has undergone a salvage inspection. Registrants in New Jersey can transfer a salvage title. However, New Jersey does not allow salvage titles from certain states, including vehicles with red-titles from Kentucky. Pennsylvania permits owners to transfer titles for salvage vehicles but does not let owners transfer titles branded as non-repairable. In Texas, registrants are legally permitted to transfer titles from other states, but they must complete the rebuilt salvage title process. Like Pennsylvania and other responding jurisdictions, Texas will not transfer titles for non-repairable (junk) vehicles.



**Figure 11** Transferring Junk and Vehicle Titles from Other Jurisdictions

### 2.3 Branded Titles and Operation on State Highways

Drive.ky.gov warns consumers that some states prohibit the operation of vehicles with rebuilt titles. The survey asked jurisdictions to indicate which branded titles can be operated on their highways. Thirty-one jurisdictions responded to this question. Ninety-seven percent allow the operation of rebuilt vehicles on their highways, and 71 percent permit the operation of flooded vehicles (Figure 12). For the most part, jurisdictions do not permit the operation of salvage or junk vehicles. Ten percent of the jurisdictions allow junk or salvage vehicles to be operated on their roads. Only 48 percent of jurisdictions allow vehicles with hail-branded titles to operate on their roads, however, the hail title brand is not widely used.



**Figure 12** Brands in Operation in AAMVA Jurisdictions

Jurisdictions generally prohibit the operation of salvage or junk vehicles unless they are en route to be repaired or inspected. In Idaho, a salvage vehicle can only operate with a temporary permit that allows it to be driven to a repair shop. Junk vehicles are not permitted on Illinois roads, but salvage title vehicles can be operated by a licensed rebuilder in the process of doing inspections or making repairs. New York does not allow the registration of any vehicle that has been branded as un-rebuildable or junk. Manitoba will not title junk vehicles.



Manitoba mandates very detailed requirements for titling rebuilt vehicles. Only vehicles with salvageable status can be operated on the highways en route to a body integrity inspection following the rebuilt process. Registrants must submit proof that the vehicle has a certificate for the body integrity inspection process. This process includes many of the same steps as the rebuilt title inspections in other jurisdictions, including VIN and odometer verification, application, and photos of the repairs. This inspection includes a repair plan, which must be completed. The repair plan contains photos of the vehicle's four corners, the original equipment manufacturer repair procedures for that vehicle, electronic 3D measurement results, airbag scan, and alignment results. If any repairs are made to the vehicle's structure, proofs of a structural dimensional inspection and a four-wheel alignment inspection are required.

Some AAMVA jurisdictions will not title flooded vehicles. As the background chapter explained, flooded vehicles are particularly dangerous when they are rebuilt. Flooded vehicles have potential problems with electrical system failures, which are crucial to the operations of safety devices such as airbags and seatbelts. It is difficult to detect or predict the types of electrical systems failures that may result in serious injuries or fatalities. Manitoba does not let flooded vehicles operate on its roads. Hail-damaged vehicle titles are branded as *salvage with exception*, but there is no legal requirement for a body integrity inspection. Instead, salvage with exception vehicles undergo a light vehicle safety inspection in order to be retitled as rebuilt vehicles. Utah also does not allow flooded vehicles to be operated on their roads. New Hampshire requires that any vehicle with junk, salvage, rebuilt, flooded, and hail titles have a salvage inspection before the registrant can submit a registration or title application.

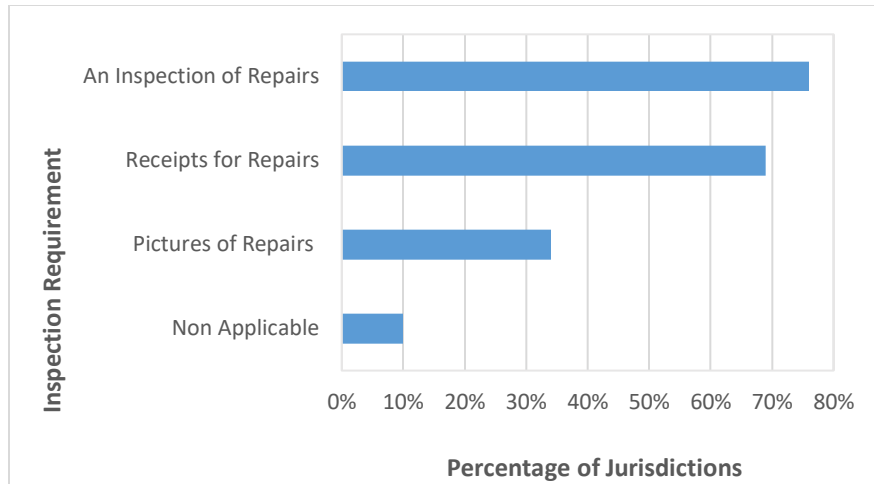
While Kentucky has specific brands for hail and flood damage, jurisdictions may use rebuilt as an umbrella term— not only for vehicles with structural and mechanical salvage repairs, but also for hail, flood, or water damage. In Utah, vehicles with hail damage fall under the rebuilt/restored brand. Virginia also includes water damaged and hail damaged under its rebuilt brand. Jurisdictions also differentiate between flooded vehicles which can be rebuilt and those that cannot in determining if the vehicle can be operated on its highways. For example, Utah does not allow flooded vehicles that fall under the flood/salvage brand to be operated on its roads, but the state permits vehicles that are branded as flood/restored.

Some jurisdictions also carry forward particular brands on vehicles even though they do not use those indicators on the title. Oregon does not have a flooded or hail brand but will carry forward flood or other damage brands from other states.

Not all brands are used to prevent a vehicle from being titled or undergoing additional safety inspections. Connecticut uses brands, such as *True Mileage Unknown*, to warn customers about a vehicle's condition, but it does not require a vehicle inspection prior to titling it. California also uses brands other than junk and salvage (which require proper repair and inspection) to warn the potential buyer and registrant about the vehicle's condition. However, there are no further requirements for titling.

## **2.4 Inspections for Rebuilt Vehicles**

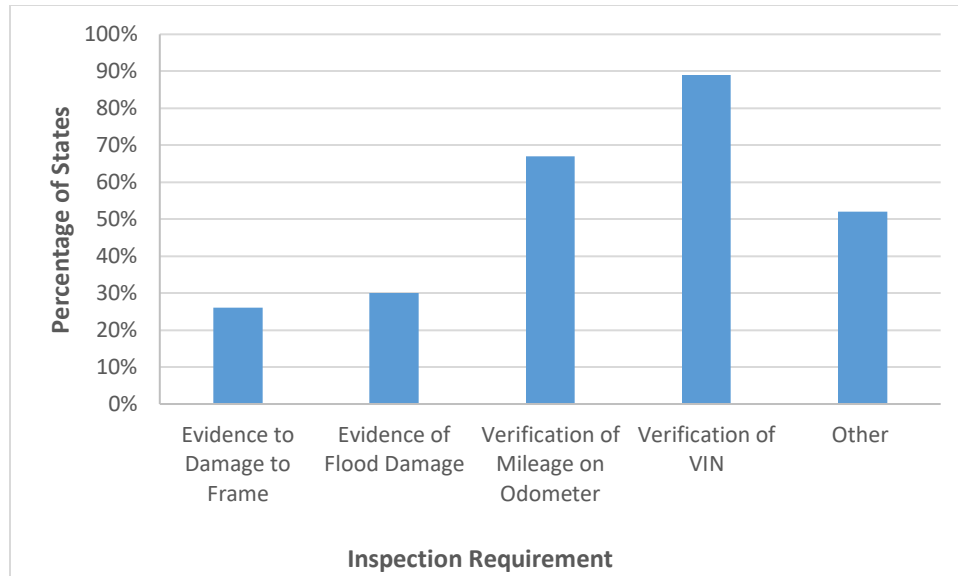
Jurisdictions were asked to indicate if they required one or more of the following: inspection of repairs, receipt for repairs, and pictures of repairs. Jurisdictions use these requirements to detect stolen vehicles, VIN and odometer fraud, and to ensure a vehicle can be operated safely. Parts receipts are used to verify that parts were not salvaged from a stolen vehicle. Twenty-nine jurisdictions responded to this question. Seventy-six percent require an inspection of the repairs made to a vehicle to bring it up to roadworthy status (Figure 13). Sixty-nine percent of these jurisdictions require that the title applicant provide receipts for the repairs. Only 34 percent of the jurisdictions require that rebuilt title applicants submit pictures of the repairs.



**Figure 13** Inspection Requirements for Rebuilt Vehicles in AAMVA Jurisdictions

For the most part, the responding jurisdictions have similar rebuilt vehicle inspection requirements as Kentucky. Alaska requires a VIN inspection/verification that the vehicle is physically complete and roadworthy. Rebuilt title applicants also submit receipts for any vehicle parts used in the reconstruction. Rebuilt inspections in Louisiana are conducted by Peace Officer Standards and Training (POST) officers. When an individual applies for a rebuilt title, they must provide the documents to the POST-certified law enforcement agent and send the inspection paperwork in with the receipt of the repairs and parts used to rebuild the vehicle. Nebraska’s inspection is similar to Kentucky’s. Inspectors examine the VIN, record the mileage on the odometer, confirm repairs have been made, and confirm no stolen parts were used to rebuild the vehicle. New York requires that rebuilt vehicles be inspected by a certified Motor Vehicle Investigator. The Motor Vehicle Investigators examine all VINs on the vehicle as well as the repair receipts. Like Kentucky, Wyoming rebuilt title registrants provide a signed statement which contains the name and address of the person or business that rebuilt the vehicle along with the damages prior to being repaired. Arkansas requires that an Affidavit of Reconstruction form be filled out with a list of parts that were repaired. California’s does not base the inspection on the quality of the reconstruction work, but inspectors will send a vehicle for a more detailed inspection if they suspect it is stolen. If an individual wants to rebuild a vehicle to roadworthy conditions in Rhode Island, repairs can only be completed by a Certified Rebuilder licensed by the Department of Business Regulations.

A question asked jurisdictions to indicate if their inspections include specific steps, which allowed researchers to determine how many states check for frame damage or flood damage, verify mileage on the odometer, and verify the VIN. Twenty-seven percent of jurisdictions responded to this question. Jurisdictions are most interested in verifying that a vehicle was not stolen and that the mileage on the odometer was accurate (Figure 14). Jurisdictions are less likely to look for evidence of flood damage or damage to the frame. Eighty-nine percent of jurisdictions verify the VIN during the rebuilt inspection, and 67 percent verify that the mileage on the odometer is correct and has not been tampered with. Only 30 percent of the respondents examine a vehicle for evidence of flood damage and 26 percent look for damage to the frame. Kentucky’s inspection is not significantly different than procedures used in other jurisdictions. The focus on odometer readings and the VINs likely stem from those being the main federal requirements for used vehicles.



**Figure 14** Inspection Requirements for Rebuilt Vehicle Titles

Some jurisdictions provided additional details about the inspection. Alaska ensures that VINs on the vehicle and parts have not been tampered with, removed, falsified, altered, defaced, or destroyed. Inspectors also examine whether the vehicle information on the application for certificate of title and supporting documents is true and correct and that there are no indications that the vehicle or any parts are stolen. The inspection does not include a determination on whether the vehicle has undergone enough repairs to ensure that it is roadworthy or test the safety condition. Minnesota does not require safety inspections but does mandate receipts for all major parts replaced, and inspectors examine the receipts to ensure that all of the VINs on the parts match the VINs on the receipts.

Connecticut, Delaware, Hawaii, Manitoba, Texas, Vermont, and New Hampshire. New Hampshire's inspections are a little more comprehensive. Not only do inspectors check the VIN, bills of sale, repair receipts, photographs of vehicle when it is declared a total loss, they also examine the hood, bumpers, doors, and windshields. The inspector confirms that the seatbelts, air bags, steering, and ABS function. The inspector also looks at the body panels to ensure they do not hinder the door or protrude. In addition, the frame and undercarriage must be free of excessive rust.

## 2.5 Insurance for Rebuilt Vehicles

During their preliminary investigation, researchers found that rebuilt vehicles are an attractive option for low-income consumers as well as buyers who want to purchase a vehicle they would otherwise be unable to afford at new or at market values. But rebuilt vehicles have many downsides. They may not be rebuilt to the manufacturer's specifications, and rebuilders may take shortcuts to increase their profits. Therefore, the vehicles may not be safe for drivers or passengers. Consumers may also pay more for a vehicle than it is actually worth. As a result, insurance companies do not always underwrite policies for branded title vehicles. To gauge the magnitude of this problem, the survey asked respondents if insurance companies in their jurisdictions insure rebuilt vehicles. All of the 27 jurisdictions that responded to this question have insurance companies that insure rebuilt vehicles.

However, the threshold at which insurance companies must declare a vehicle as a total loss and pay a settlement varies among jurisdictions. Question 9 asked about the percentage threshold or other methods used to determine when a vehicle will be declared salvage. Some states have a predetermined percentage or threshold, which is the point at which the vehicle must be declared a total loss and salvaged. In other states,

the insurance company adjudicates the threshold at which they will declare a vehicle a total loss. This is known as the total loss formula, and insurance companies use their own tools for determining when a vehicle will be salvaged. Some of the respondents did not specify a percentage threshold for their jurisdiction, only indicating that a vehicle is salvaged when vehicle repairs exceed the fair market value. Some states use a combination of the total loss formula and the threshold percentage.

Table 2 lists the methods jurisdictions use to determine when to salvage a vehicle. Where respondents indicated a threshold percentage it is included in the table. Most responding jurisdictions (12) use a threshold percentage to determine when a vehicle should be salvaged. Additionally, most of those states set the threshold percentage at 75%. In Manitoba, a vehicle that is 0-10 years old is a total loss at 75% of fair market value. A vehicle whose age is greater than or equal to 11 years is a total loss at 85% of fair market value. Six states let insurance companies determine the threshold at which they will pay a settlement rather than pay for vehicle repairs. Five jurisdictions responded that a vehicle is salvaged when the repair of the vehicle exceeds its fair market or cash value. Two states use a combination of the total loss formula and the fair market value to establish the salvage threshold.

**Table 2** Salvage Thresholds among AAMVA Jurisdictions

<b>Percentage</b>	<b>Insurance Companies Use Total Loss Formula</b>	<b>Repair Exceeds Fair Market Value</b>	<b>Total Loss Formula and Fair Market Value</b>
Alabama (75%) Arkansas (70%) Illinois (33 1/3%) Kentucky (75%) Louisiana (75%) Manitoba (85/75%) Minnesota (80%) Nebraska (75%) Oregon (80%) Rhode Island (75%) Virginia (75%) West Virginia (75%)	California Connecticut Idaho Mississippi New Hampshire Vermont	Arizona Delaware Hawaii Texas Utah	New York Wyoming

## 2.6 Conclusion

Based on the survey responses, rebuilt branded titles are very common in the United States and easily transferrable among jurisdictions. It also appears that insurance companies in most states insure rebuilt vehicles. Kentucky’s rebuilt titling application process and inspection are not significantly different from those of other AAMVA jurisdictions. Except for jurisdictions like Manitoba and New Hampshire, most rebuilt inspections focus on verifying a vehicle was not stolen by examining the VINs on the vehicle and parts and verifying the odometer’s mileage.

A small detail in an answer from New Jersey about out-of-state title transfers is worth reiterating. The state will not transfer titles from certain states, including red titles from Kentucky. Red titles are for salvage and rebuilt vehicles transferred into Kentucky from out-of-state. Red title vehicles are of significant concern to DMVL because registrants in other states may use the lax inspection process and the ability to transfer junk titles into Kentucky to title unsafe or stolen vehicles. If a state like New Jersey will not accept these titles — presumably because the vehicles are not considered safe to operate on roads — a more stringent inspection program might be an important step to ensure only safe vehicles are being rebuilt and titled in Kentucky.

### 3. Ohio State Highway Patrol Inspection Salvage Inspection Program

KSP's Vehicle Investigations personnel recommended that researchers investigate the Ohio State Highway Patrol's (OSHP) rebuilt inspection process. KSP has been consulting with OSHP to gather ideas on how Kentucky can improve its rebuilt vehicle inspection process. According to KSP, Kentucky could model multiple steps after Ohio's procedures. First, Ohio has a mechanic examine the vehicle while it is on a rack. Second, while a civilian inspector performs the inspection, a uniformed officer is always present to run background checks on the driver and the vehicle. The officer can also seize the vehicle if necessary as well as make arrests for warrants. Ohio uses the Ohio Trooper Inspection System (OTIS), a software program developed in-house. Each inspector has an iPad with OTIS installed, which lets them track the inspection steps through a checklist and store documents related to the inspection. The iPad's camera is used to photograph and document various steps of the inspection process. OTIS also tracks receipts and inspection schedules.

OSHP is responsible for conducting vehicle inspections for titling. Inspection types include:

- VIN Verification
- Salvage Titles (Rebuilt Titles)
- VIN Plate Replacement
- Self-Assembled Vehicles
- Court Orders
- Out-of-State

Ohio statutes require that salvage vehicles (referred to as rebuilt vehicles in Kentucky statutes) be inspected by OHSP personnel before the owner can obtain a title. The goal of the inspection is to confirm that the vehicle, and any parts used to reconstruct the vehicle, are not the product of theft. Safety issues are not addressed during these inspections unless the vehicle has an obvious flaw making it not roadworthy.

The vast majority of vehicle inspections in Ohio are conducted on salvage vehicles. In 2017, 98 percent of the inspections were for salvage titles. In 2018, OSHP conducted 48,463 salvage vehicle inspections. The total annual revenue for 2018 was \$2.1 million, which is directed into a fund managed by the OHSP and to pay for the facilities, technology, and employees. Inspection facilities are run and maintained by OHSP. Each inspection costs \$53.50. Of that, \$50 goes toward funding the OSHP inspection program; \$3.50 is used to fund the activities of the privately-owned Bureau of Motor Vehicle locations where the inspection receipts are purchased before the inspection.

#### 3.1 2018 Audit of OHSP Vehicle Inspection Program

From 2017 to 2018, the Ohio Office of Internal Audits reviewed the OSHP Vehicle Identity Inspection Unit to identify ways to improve its efficiency and ensure policies and procedures were being adhered to during the inspection process. This audit was conducted just prior to the OTIS software program being introduced. Auditors sought to evaluate the design and effectiveness of controls over the inspection process. The following paragraphs detail the findings of this audit.

Before OTIS was introduced, inspectors could not track 1) inspections, 2) inspections that were scheduled but canceled, 3) no-shows to inspections, and 4) failed inspections. No mechanism existed for retaining information about inspections or maintaining the required documentation gathered during inspections. In addition, the length of time spent conducting each inspection could not be tracked. No supervisory oversight was in place to ensure that policies and procedures were being followed during the inspection process, which raised the prospect that vehicles passed inspections when they should not have. This scenario also fomented a lack of consistency in the inspection process.

Without tracking and oversight revenue was lost. Each time that a person applies for a salvage title, the vehicle must be inspected. Prior to that inspection, the customer must pay a fee and receive a receipt that is presented to the inspector. Those fees generate revenue which fund the inspection program. Because the previous inspection system did not track when customers failed to bring the vehicle to the inspection, customers could use the same inspection receipt repeatedly. When new receipts were not purchased, Ohio lost revenue.

Auditors recommended that supervisors conduct regular reviews to ensure proper procedures were being followed during the inspections. They also recommended that the new inspection system be able to retain inspection documentation, including receipts, photographs, and information on failed inspections. Audit findings pointed to the need to track inspection times, inspection types, and receipts purchased for inspections. As the following section describes, all of these recommendations were implemented in the OTIS system.

### **3.2 Current Inspection Process Utilizing OTIS**

Registrants pay \$53.50 fee to the Bureau of Motor Vehicles (BMV) at a Deputy Registrar location. Upon payment, the customer receives a receipt to present to the vehicle inspector. There are 88 deputy registrar locations in Ohio. Once registrants obtain their receipt, they visit a vehicle inspection website to schedule their inspection.<sup>1</sup> Vehicles can usually be inspected within 21 days. Customers can also reschedule and cancel their inspections on the website. Nine inspection locations are spread throughout Ohio.

When the registrant arrives to the inspection, they present the receipts for any major components that have been replaced as well as the VINs of the source vehicle and major components. Major components include the engine hood, deck lid transmission, bumper tailgate, front fender doors, hatchback rear quarters, rear door frame, and dash airbags. If additional parts have a fair market value of \$100 or more, a receipt is required. If the parts were purchased from an individual rather than an official parts supplier, the registrant must possess notarized documentation from the seller. Those receipts are required to have the seller's contact information, including the name, address, and phone number of the person who sold the part. If an inspector suspects that some part is of questionable origin, OSHP can seize the part or the vehicle. Unlike Kentucky, Ohio will not transfer out-of-state junk/non-rebuildable titles.

As Figure 15 illustrates, the salvage vehicle inspection process has three responsible stakeholders: the customer, the motor vehicle inspector, and OSHP. A salvage inspection begins when the registrant purchases the inspection receipt from the BMV Deputy Registrar (A01) or requests a VIN replacement or out-of-state inspection (A02). Then customers go to the vehicle inspection link online and schedule their appointment. When the customer arrives for the inspection, they present their receipt to the OSHP civilian inspector (A03). If customers are not on-time, their inspection is rescheduled. In the next step, the customer presents the receipts and VIN numbers of all of the major components. (A04). These must be original receipts — not photocopies or faxes.

The motor vehicle inspector then conducts the inspection (A05). Inspections take between 10 and 30 minutes. The inspectors use an iPad program developed in house to record inspection data as well as upload photos, VINs, and documents related to the inspection. The inspector starts by looking at the driver's license, vehicle title, and the receipts. The inspector runs the VIN and driver's license number through OTIS and the Law Enforcement Automated Data System (LEADS), an Ohio-based repository that interfaces with the National Crime Information Center (NCIC) and National Law Enforcement Telecommunications System (NLETS). LEADS lets law enforcement, courts, and prosecutors search driver records, titles, registrations, stolen vehicles, missing persons, warrants, and parole status. If a vehicle's driver does not

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<sup>1</sup> <https://services.dps.ohio.gov/VehicleInspection>

have a license, the inspection is cancelled and the driver must have someone pick them up. If the driver has a warrant out for their arrest, OSHP arrests them immediately. The inspector also checks Carfax to review the title history along with previous damage to the vehicle. All of this information is entered into OTIS. OTIS tracks receipt information, which prevents customers from using receipts multiple times using different VINs. If detected, OTIS flags the duplicated receipt, providing the date the receipt was previously used.

Then the inspector conducts the actual inspection (A06). The inspector looks over the vehicle and records all VINs in the Vehicle Inspection Checklist. When inspectors examine a vehicle, they review the customer's narrative about how they obtained the vehicle as well as the history of the parts to see if they match. The inspector looks at three different areas of the vehicle, noting cosmetic damages as well as any additional changes that were made to the vehicle. Once the inspection is complete, the inspector enters the information and notes into OTIS (A07). Checklists are retained for two years once they are entered into OTIS.

If vehicle fails the inspection, the inspector returns the inspection receipt to the customer; the vehicle can undergo a new inspection once the noted issues are resolved/repaired (A08). If the inspector sees issues which would normally warrant a ticket for an unsafe vehicle, such as a broken frame or missing tire tread, the vehicle will also fail the inspection. If the inspector believes the parts or the vehicle are of suspicious origin, they contact OSHP troopers, who are to conduct an investigation (A09). If the OSHP patrol officer confirms the parts or vehicle are stolen, the trooper seizes them (A10).

When a vehicle passes the inspection, the registrant receives a receipt containing the number of the original receipt so the two are connected in the database. Then the registrant takes the completed form to the title department of the BMV to obtain their title and registration (A11).

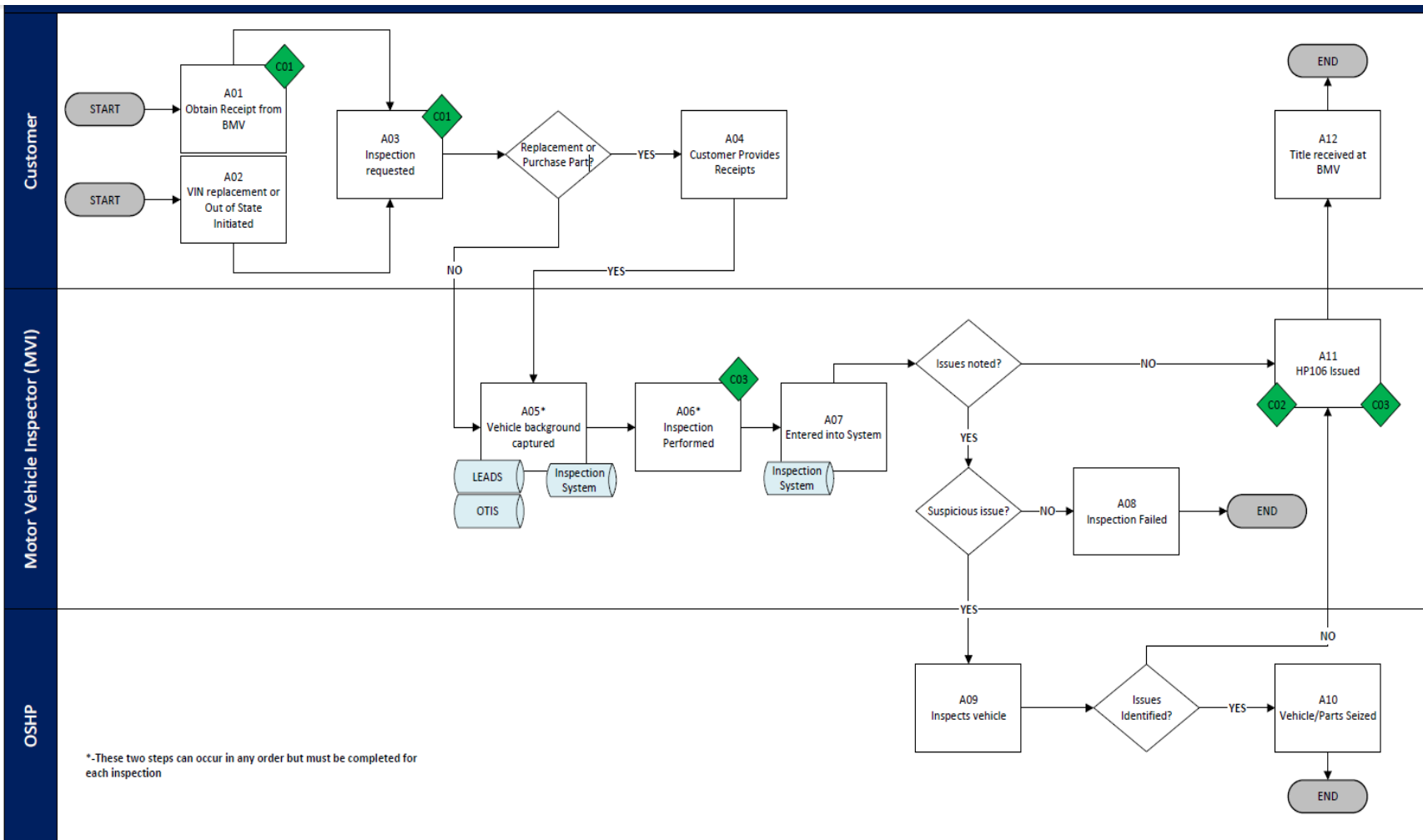


Figure 15 Ohio Vehicle Inspection Process



Researchers conducted additional interviews with OSHP about its inspection process. OSHP attributes its success to the OTIS system. Staff members were initially skeptical about OTIS, but they have come to appreciate the additional capabilities it provides to detect fraudulent vehicles, parts, and documents. Vehicle inspectors participate in a week-long, in-service training session once a year.

OSHP troopers can view inspections in real-time as the inspector proceeds through the checklist in OTIS. If an inspector encounters an issue during the inspection, they can call OSHP in Columbus, and a trooper can login to OTIS and provide assistance. Since all vehicle and driver information is screened in OTIS and LEADS, inspectors are better able to identify stolen vehicles and fraudulent documents. According to OSHP officials \$1 million was invested in developing OTIS. The system is maintained by an internal IT department. However, much of the control over the system is given to the OSHP administrators who can change inspection types, inspection flow, add/delete inspection locations, and change inspection schedules.

According to OSHP officials, the biggest challenge for their unit involves vehicles purchased from Craigslist and Facebook Marketplace, where it is possible to purchase vehicles without titles. The most prevalent problem involves cash loan businesses. In these cases, an individual sells the vehicle title to a cash loan company and receives cash. Then the person sells the vehicle on Facebook Marketplace or Craigslist and reports it as stolen. In another scenario, the person takes the vehicle apart and sells the parts on those sites. By examining receipts, online listings, and customer narratives, inspectors are frequently able to identify stolen vehicles or parts. During the interview, an OSHP investigator said his unit had recently seized four stolen vehicles as well as stolen parts.

OSHP officials said Ohio residents take advantage of Kentucky's lax inspection process for rebuilt vehicles. One rebuilder near the Jackson County inspection station (located across the border from Boyd County and Greenup County) brags to law enforcement that all of his vehicles are titled in Kentucky because of Kentucky's lax titling process. In addition, Kentucky does not track how many vehicles a dealer brings into the state. Ohio has seized multiple stolen vehicles that originated with rebuilt or salvage titles from Kentucky. At the time of the interview, an OSHP trooper had recently seized a 2008 F250 King Rancher following a salvage inspection. The vehicle had been titled in Garrison, Kentucky, as a salvage vehicle, and the owner attempted to title the vehicle in Ohio as a rebuilt vehicle. During the inspection, Ohio inspectors discovered the vehicle was stolen in Florida, retagged with a new VIN on the dash, and transferred to Kentucky. Had the vehicle inspector in Kentucky run the VIN through NCIC or NLETS, they would have discovered the VIN was cloned from a VIN registered in Illinois and ideally prevented the vehicle from being titled.

### **3.3 Conclusion**

OSHP salvage vehicle inspectors pursue the same goals as Kentucky rebuilt title inspectors: identify stolen vehicles, stolen parts, and vehicles which are not roadworthy. Ohio also requires the same documentation as Kentucky. However, the OTIS system is much more sophisticated than Kentucky's current inspection system, and thus more efficiently detects fraud. The OTIS program is a relatively recent addition to the OSHP vehicle inspections

Based on interviews with OSHP troopers, Kentucky is a source of stolen vehicles because Kentucky transfers junk titles from out-of-state and has a lax inspection system for rebuilt vehicles. Interviewees specifically expressed concern about the fact that the vehicle inspectors are not actually employees of KSP and thus may be less skilled at identifying vehicle fraud than someone who is specially trained.

Clear evidence demonstrates that criminals use Kentucky's lax titling and inspections process to obtain titles for stolen vehicles. Kentucky could adopt the best practices used by Ohio to improve its rebuilt vehicle titling and inspection process. This would include removing the vehicle inspection responsibilities from

inspectors at county clerk offices and placing it under the authority of KSP. Having uniformed officers present to detect and investigate stolen vehicles and parts would make the process more efficient.

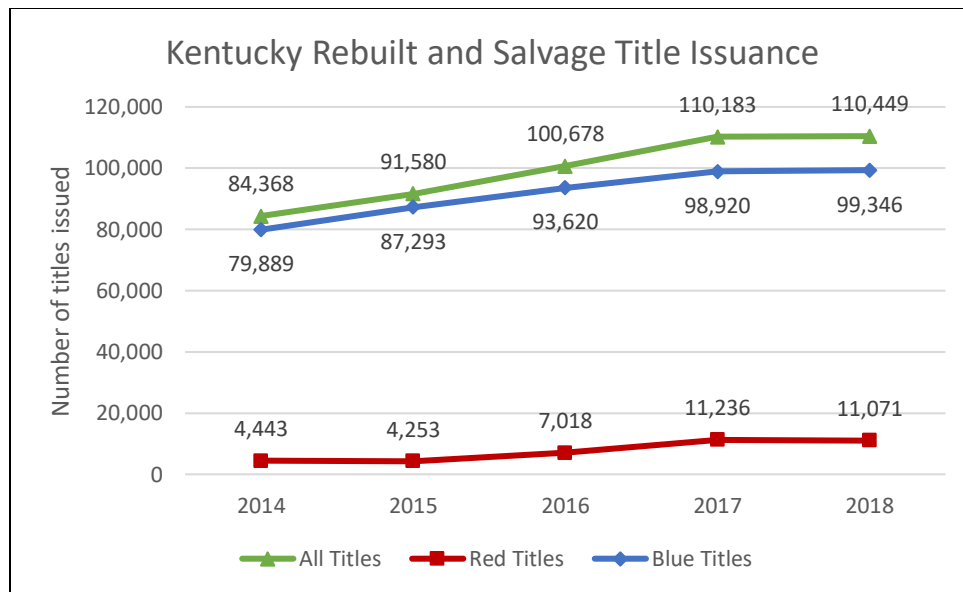
Inspectors should be trained each year. Kentucky could also adopt a more stringent checklist and document retention system for rebuilt inspections. Interviewees in OSHP said it may be possible for Kentucky to purchase and implement the OTIS software, although this has not been done previously. In order to accomplish these changes, Kentucky would need to modify statutes and administrative regulations.

## 4. Rebuilt Title Economic Analysis

Each year, county clerks across Kentucky issue thousands of rebuilt and salvage titles to vehicle dealers, auto repair shops, and people wanting to sell or register such vehicles. The number of rebuilt and salvage titles issued in Kentucky has increased significantly in recent years. Most of the titles are for in-state vehicles or for vehicles previously titled and appear on blue titles. However, a growing percentage of rebuilt and salvage vehicles were previously titled out-of-state. Those vehicles, which are issued red titles, are of special concern because it is difficult to track previous designations and whether the vehicle is ever located in the state. Part of the explanation for the increase in rebuilt and salvage vehicles previously titled outside of Kentucky receiving new titles in the state is the continuing recovery of the U.S. economy after the Great Recession. But it is increasingly evident that what is to blame is Kentucky’s lax titling requirements and the economic benefits to businesses and individuals who move potentially unsafe or stolen vehicles through the system. Consequently, the economic impacts of these titles in local communities can be quite significant, as the business or individual making the transaction stands to make a significant amount of money from the large churn of rebuilt and salvage vehicles. This chapter explores patterns of title issuance, the economic value of those titles to businesses or individuals in the state, and the relationship between population size and per capita income and rebuilt and salvage title issuance.

### 4.1 General Trends

Figure 16 displays the number of rebuilt and salvage titles issued between 2014 and 2018. The green line is the total for all titles (the total of blue and red titles). In 2014, 84,369 were issued; this grew to 110,449 in 2018 — an increase of nearly 31 percent. The vast majority of rebuilt and salvage titles are blue titles, and therefore those numbers track closely to the overall numbers. The blue title issuance increased 24 percent from 79,889 in 2014 to 99,346 in 2018. Red titles increased sharply, by 149 percent for the five-year period, although the numbers leveled off between 2017 and 2018. For more context about what these issuance numbers mean, compare Kentucky’s totals to those of Ohio, a much more populous state which issued 48,463 rebuilt titles in 2018.



**Figure 16** Salvage and Rebuilt Title Issuance in Kentucky, 2014-2018

Issuance numbers look even more dynamic if rebuilt and salvage titles are broken into specific title brands. Table 3 shows the breakdown for each title brand. Brands R, W, H, 1, 2, 3 and 4 are types of blue titles,

whereas brands S, 5, 6, 7, 8, 9, A and B are red titles. Most brands saw their issuance numbers grow between 2014 and 2018 except for H, 2, 3, 4, and B — all of which pertain to some form of hail damage. Given that hail storms are rare events, this outcome is not unexpected. Those numbers would be volatile and contingent upon localized weather patterns. The only exception to this trend is Brand 9, which did see increases (but which is relatively rare overall). Especially striking is the growth in the number of brand S and 6 titles issued — a 212 and 331 percent increase, respectively. Meanwhile, Brand 5 titles increased 55.8 percent. A large increase in titles issued for water-related damage was observed between 2014 and 2018, which could be related changing weather trends. Much of Kentucky was exposed to near-record levels of rainfall in 2018, for example.<sup>2</sup> It is important to keep in mind that salvage titles can be retitled as rebuilt titles, thus making it difficult to ascertain the true number of titles issued. Here we rely on the last known title status of the vehicle in the AVIS database.

**Table 3** Number of Titles Issued in Kentucky by Brand and Year, 2014-2018

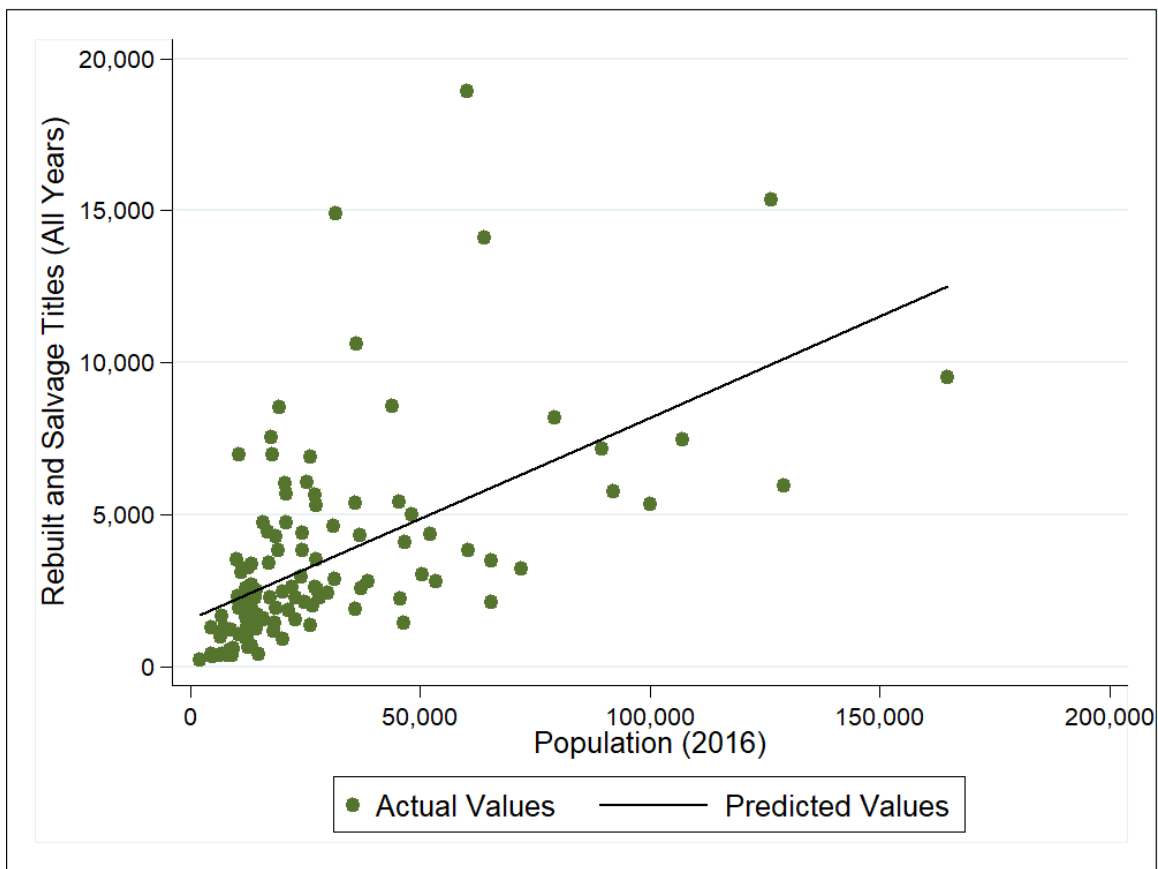
Description (Red/Blue)	BRAND	2014	2015	2016	2017	2018	Total
Rebuilt	R	75,347	81,870	88,617	93,596	93,453	432,883
Water	W	2,106	2,985	2,510	2,731	3,494	13,826
Hail	H	1,201	1,131	1,150	1,116	902	5,500
Rebuilt, Water	1	782	838	892	1,036	1,165	4,713
Rebuilt, Hail	2	415	429	413	405	311	1,973
Water, Hail	3	8	13	15	11	7	54
Rebuilt, Water, Hail	4	30	27	23	25	14	119
Salvage	S	343	375	1,251	1,391	1,071	4,431
Rebuilt/Salvage	5	2,771	2,623	2,918	3,992	4,316	16,620
Water/Salvage	6	1,194	1,084	2,604	5,273	5,151	15,306
Hail/Salvage	7	10	10	13	15	22	70
Rebuilt/Water/Salvage	8	109	139	200	521	471	1,440
Rebuilt/Hail/Salvage	9	8	10	19	37	30	104
Water/Hail/Salvage	A	8	12	13	7	10	50
Rebuilt/Water/Hail/Salvage	B	36	34	40	27	32	169
Total	Total	84,368	91,580	100,678	110,183	110,449	497,258

The spatial distribution of rebuilt and salvage title issuance also provides useful insights. Counties with large volumes of rebuilt and salvage titles produce larger administrative workloads for both county clerks and administrators at DMVL in Frankfort. There are also substantial economic interests in these counties as well, as businesses or individuals who purchase, restore, and resell these vehicles can make a good deal of money. These counties require a greater investment of resources to ensure unsafe or stolen vehicles are not titled. Figure 17 displays the total number of rebuilt and salvage titles issued between 2014 and 2018 by county. Data are based on where the title is issued, which may not necessarily be the same county (or even state) where the vehicle was last registered.

<sup>2</sup> Foster, Stuart. “2018 one of wettest years on record in Kentucky.” WKU News. Accessed 24 June 2019 at: <https://www.wku.edu/news/articles/index.php?view=article&articleid=7261>



The most rebuilt and salvage title activity occurs in large population centers such as Jefferson, Fayette, and Warren Counties. There is also a large concentration of counties in the southern part of Central Kentucky along the I-75 and I-65 corridors with greater activity, which is probably a byproduct of easy interstate access. Jefferson County, which is the state’s most populous county, is a significant outlier, with nearly 75,000 vehicles plates issued during the five-year period. Another outlier is Laurel County, which titled the second-most rebuilt and salvage cars (18,936) of any Kentucky county despite ranking only 16<sup>th</sup> in population according to 2016 U.S. Census Bureau estimates. The same is true of Knox, Pulaski, and Whitley Counties, which rank highly in terms of titles issued (4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup>, respectively) but much lower in overall population (14<sup>th</sup>, 29<sup>th</sup>, and 32<sup>nd</sup>, respectively). Overall, however, population is a good predictor of title issuance numbers (see Figure 18). The scatterplot indicates the relationship between county population (x-axis) number of rebuilt and salvage titles issued on (y-axis). It is supplemented by a linear prediction estimator based on the data. The correlation coefficient of .914 indicates a very strong relationship between population and title issuance, despite the presence of outliers.



**Figure 18** Rebuilt and Salvage Title Issuance and Population, by County

The county-by-county correlation between overall rebuilt and salvage titles and blue rebuilt and salvage titles is .998, and therefore an extended discussion of the data would be largely redundant (but see Figure 23 in Appendix A for blue title issuance at the county level. The county-level distribution of red titles is similar, but does not track as closely as blue titles. Blue titles for rebuilt and salvage outnumbered red salvage and rebuilt titles 459,066 to 38,190 over the study period. Again, these titles are frequently not a terminal title status, as some salvage-branded cars are repaired and then changed to rebuilt status. Given the special concern state administrators have about potential safety and fraud issues pertaining to red titles, administrators may be interested in further investigating the counties where they are commonly issued. These counties should be the focal point of any pilot implementation projects, as they will demonstrate the

most value for any changes in policy or administrative processes. Figure 19 shows the distribution of red titles issued in Kentucky between 2014 and 2018. In many ways, the map is similar to the overall title issuance map. Most title issuance occurs in Central Kentucky near the I-65 and I-75 corridors, and to some extent in southeastern Kentucky.

Laurel County offers a particularly interesting case. More red rebuilt and salvage titles (4,523) were issued here during the five-year study period than any other county. Laurel County accounts for nearly 12 percent of all red titles issued in Kentucky during the study period. Conversely, Jefferson County issued the second most red rebuilt and salvage titles — 3,026, or is roughly two-thirds of the number issued in Laurel County. This situation is quite remarkable considering that only 1.4 percent of the state’s residents live in Laurel County. Expanding the frame of analysis to a six-county cluster that encompasses Laurel, Knox, Rockcastle, Pulaski, Whitley, and Clay Counties, reveals the issuance of 10,926 red titles — 28.6 of all red titles issued during the period. Yet these six counties only comprised an estimated 5.2 percent of the state’s population as of 2016.

The largest counties by population, Jefferson and Fayette Counties, issue a large number of titles — 3,026 for Jefferson County and 1,293 for Fayette County. Jessamine and Madison Counties, which are adjacent to Fayette County, contributed an additional 1,262 red rebuilt and salvage titles. A few other pockets are worth noting. Warren, Barren, and Monroe Counties combined to title 3,363 rebuilt vehicles. Monroe County in particular stands out, having issued 1,700 red rebuilt and salvage titles despite its population being 10,539. In northern Kentucky, Campbell County issued 1,711 titles, finishing just ahead of Monroe County for the 4<sup>th</sup>-most titles of any county. Calloway and Marshall Counties, which issued just 9 red salvage and rebuilt titles combined in 2014, issued 301 in 2018 — a staggering increase.

Overall, 20 counties accounted for two-thirds of all red rebuilt and salvage titles issued from 2014 to 2018. County clerks (particularly those operating in the top 20 counties) and DMVL administrators should evaluate issuance procedures, including receipt documentation, stolen vehicle checks, and vehicle inspections. The increased flow of out-of-state rebuilt and salvage vehicles could lead to instances where unsuspecting consumers purchase unsafe or stolen vehicles. This is also true for rebuilt and salvage vehicles with blue titles, although the fraud risk may be somewhat lower. Subjecting rebuilt and salvage vehicles to extra scrutiny may be of great benefit to Kentucky residents. It also creates potential quality control issues for vehicle licensing agencies in other states, as the vehicles coming through the Kentucky administrative process may end up domiciled in other jurisdictions with stricter policies. Unfortunately, because of Kentucky’s current issuance procedures, other states may be unaware of potential issues. A more rigorous inspection program would help mitigate these potential issues. However, there is obviously significant economic impact from the flow of rebuilt and salvage vehicle through the state. Section 4.2 documents the economic parameters, which helps to explain the increased trend in rebuilt and salvage titles.



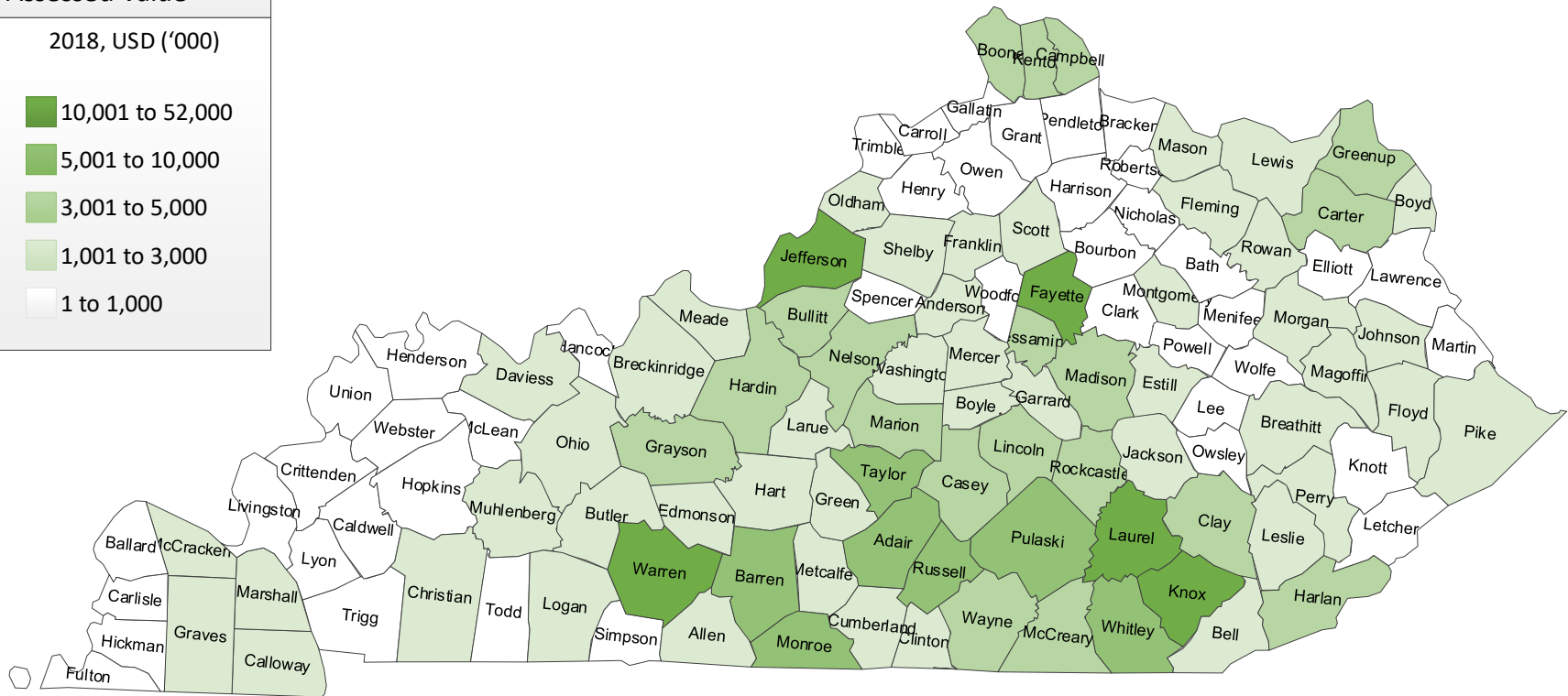
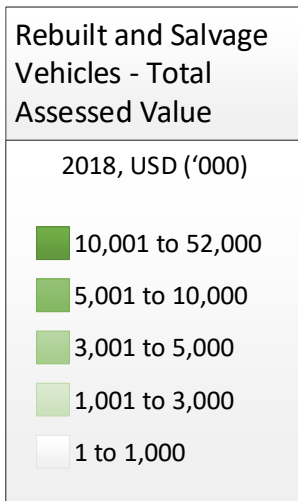


## 4.2 Economic Impact and Vehicle Cost

The volume of rebuilt and salvage titles issued each year confirms that the damaged car business is a potentially lucrative one. To determine the direct impact of the rebuilt and salvage title industry on Kentucky's economy, researchers obtained data from the Department of Vehicle Regulation (DVR) pertaining to reported sales price on each of the titles. Unfortunately, these prices are sometimes not recorded by the county clerks, meaning there is no financial information available. Therefore, the best proxy for the sales price is the estimated value on the latest registration associated with the vehicle VIN. This is the best available method given the study's limited resources, but it has a few limitations. First, cars depreciate in value continually; thus, cars titled prior to 2018 may be assessed at a lower value than the title transaction would suggest. Second, under Kentucky state law, there were also changes in the manner in which motor vehicle sales value assessments for the ad valorem tax were determined per KRS 138.4603. Third, 21,936 of the 497,256 vehicles in the rebuilt and salvage title dataset appear with a value of \$0. Based on the data entry rules for the database, this could mean either the county clerk did not collect the information or the vehicle was transferred to the purchaser at no cost (e.g., a gift from a relative or charitable donation). There are several exemptions on vehicle sales and usage taxes defined under KRS 138.450, 138.460, and 139.470. In instances where no assessed or ad valorem value is available, the sales price is used where available. Consequently, the best estimate of the economic impact is to sum the cumulative value (ad valorem or purchase price) of all rebuilt and salvage titles issued in 2018.

Collectively, the 110,449 rebuilt and salvage vehicles titled in 2018 were valued at nearly \$331 million. When one considers that some of the vehicles will be worth significantly more once repaired and sold to a customer, it is clear that rebuilt and salvage vehicle sales have a fairly significant economic footprint in the Bluegrass State. Figure 5 shows the total assessed value of vehicles by county. These numbers report the total assessed value based on the 2018 vehicle ad valorem assessment or reported purchase price that individuals paid when renewing their vehicle registration. To clarify, this is not cumulative tax paid, but the cumulative assessed value of the vehicles, which is the basis for the tax and a good way to measure the economic value of these transactions in each county. The cumulative value is reported in thousands of dollars such that the "1 to 1,000" category is actually "\$1,000 to \$1,000,000", and so forth.

The economic impacts map closely aligns with the overall titling numbers (see Figure 19). There are five counties in which the total value of rebuilt and salvage vehicles titled during 2018 exceeded \$10,000,000. Jefferson County's economic impact was the largest in Kentucky by a substantial margin, with \$51.6 million in rebuilt and salvage vehicles titled in 2018. Fifteen percent of all rebuilt and salvage vehicle sales receipts in the state moved through Jefferson County, which is approximately the same as its share of vehicles titled. The next-largest economic impact was in Laurel County, where the rebuilt and salvage vehicles titled were worth an estimated \$16.6 million. Three other counties — Warren, Fayette, and Knox — topped the \$10 million mark. These five counties accounted for \$103.3 million of the state's total. Seven counties occupy the next tier — Pulaski, Adair, Whitley, Monroe, Taylor, Russell and Barren. In aggregate, the cars titled in each of these counties were valued at \$5 to \$10 million. Twenty counties fell in the \$3 to \$5 million range. The 31 counties in the top three tiers accounted for 68 percent of the value of rebuilt and salvage vehicles titled in Kentucky. Forty-six counties were in the \$1 to \$4 million dollar range, and 43 counties in the \$1 to \$1 million range. Robertson County came in with the lowest value — \$85,764.



**Figure 20** Total Value of Rebuilt and Salvage Vehicles Titled in 2018 by County

### 4.3 Vehicle Cost

Another question of interest to researchers and administrators was the average or median vehicle cost of a vehicle based on the assessed ad valorem value or sales amount listed on the title. The basic approach is to divide the total estimated value of all rebuilt and salvage vehicles by the number of vehicles; or in the case of the median price, sort in order of cost and take the middle observation or average of the middle two observations (if there are an even number of records). However, there are two issues. One is the vehicles for which there is no value data. Of the 110,449 rebuilt and salvage vehicles titled in Kentucky in 2018, 4,908 indicate “\$0” cost or missing data. Some outliers are apparent on the low and high ends of the vehicle value distribution. On the high end, some vehicle values appear to be data entry errors. The most extreme example is a 1997 Ford Escort with a reported value of \$384,000, a highly improbable price. Others examples include luxury cars or commercial vehicles. One 2011 Corvette is listed with a taxable value of \$97,038. Freightliner semi-tractors from 2014 and 2016 are each valued at \$80,000 each. On the other end of the distribution is vehicles valued at \$1 or even \$.01; prices that were likely entered where the ad valorem value was unavailable and the vehicle sales price was listed at an artificially low amount because it was meant to be a gift or charitable donation.

Both of these factors can influence a cost metric. Because it is impossible to determine whether the “\$0” values are correct or missing (because that is the database default), we eliminate those records. Table 4 shows the distribution of the costs excluding the “\$0” or missing data vehicles but including the outliers.

**Table 4** Distribution of Rebuilt and Salvage Vehicle Values, 2018

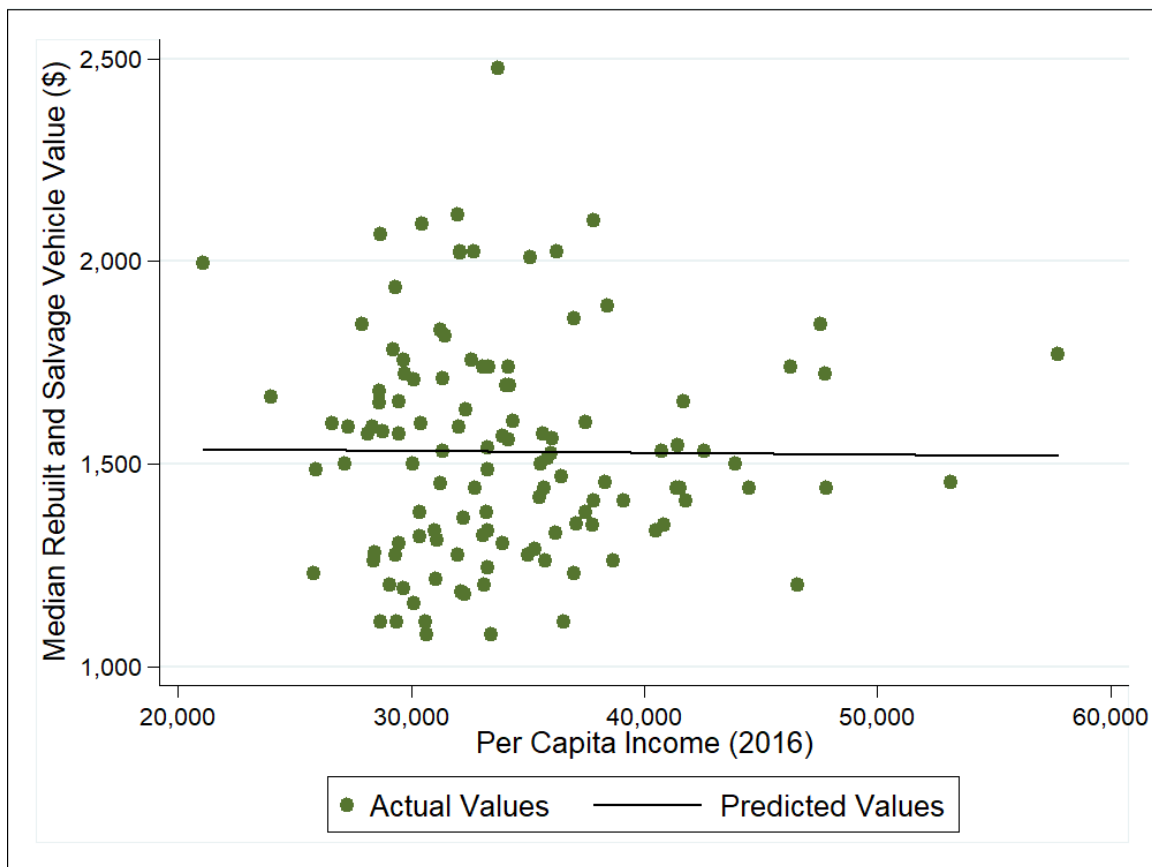
Percentile	Cost
1%	\$250
5%	\$250
10%	\$582
25%	\$975
50%	\$1,785
75%	\$3,756
90%	\$7,440
95%	\$10,560
99%	\$17,850
Mean	\$3,136
Std. Dev.	\$3,939

The average cost of rebuilt and salvage vehicles in 2018 was \$3,136, but the number is clearly biased upward by high-cost vehicles, as the median cost was \$1,785. The first percentile is \$250, and there are 858 vehicles with a lower value. The 99<sup>th</sup> percentile is \$17,850, with 1,055 vehicles listed above that price. If outliers below the 1<sup>st</sup> and 99<sup>th</sup> percentile are eliminated, the average vehicle cost drops to \$2,954, but the median only drops from \$1,775. Given the influence of outliers on the average cost, we focus on the median vehicle cost because it is less susceptible to influence by outliers. However, a map of the average rebuilt and salvage title cost is included in Appendix A. Figure 21 shows the distribution of median assessed values or sales prices for rebuilt and salvage vehicles titled in Kentucky in 2018.



The median price distribution for rebuilt and salvage vehicles is quite left-tailed, meaning that the vast majority of counties had a local median below the statewide median. Only 34 of 120 counties had a median price above the \$1,785 statewide median. Forty-four counties had a median between \$1,001 and \$1,500. Nearly half (58) of the counties had a median between \$1,501 and \$2,000. On the higher end of the distribution, 14 counties had a median vehicle assessment or sales price of \$2,001 and \$2,500, and four counties came in with a median between \$2,501 and \$3,000. The four counties in the \$2,501-\$3,000 range are Monroe, Adair, Marshall, and Rockcastle.

Why are rebuilt vehicles more expensive in some counties than others? One potential explanation is that prices could be a function of the varying levels of income in an area. Figure 22 is a scatterplot that shows, for 2018, the relationship between per capita income and median rebuilt and salvage vehicle value. There is some lag between the time when the per capita income were measured and median rebuilt and salvage vehicle data were taken, but we suspect 2018 per capita income data would show a similar relationship. Dots represent the median values at the county level. The black line indicates the predicted linear fit. As is the scatterplot makes apparent, there is no relationship between vehicle price and county per capita income ( $r = -.01035$ ). The variance of rebuilt and salvage vehicles is far less pronounced than per capita income. The same is true if the mean instead of the median is examined ( $r = -.0605$ ) (see Figure 24 in Appendix A).



**Figure 22** Scatterplot of Per Capita Income and Median Rebuilt and Salvage Vehicle Value, 2018

#### 4.4 Commercial vs. Private Transactions

Although the overall economic impact of rebuilt and salvage title transactions has been quantified, questions remain about the degree to which these transactions are undertaken on behalf of individuals looking for an inexpensive alternative to a new car or used car with a clean title and professionals looking to purchase a car for repair and resale. There is no definitive way to classify each title as a personal title or a title belonging

to an auto seller or trader. In some cases discerning the difference is straightforward because the business name goes on the title instead an individual’s name. However, some smaller commercial operations may merely title the vehicles in the name of an individual. County Clerks do not make a distinction when creating the title, so the best alternative is to estimate the breakdown. One mechanism to estimate the number of commercial versus private rebuilt and salvage vehicles titled would be to look for duplicate records with some combination of the same identifying characteristics: name, address, city, state, and county where the title was issued. The underlying premise of this approach is that few individuals are going to title multiple rebuilt or salvage titles during a five-year window, but vehicle dealers would. Table 5 shows the sensitivity of the duplicate records check depending on the criteria used. There are five Scenarios; checked box indicates whether that field must be included to count as a duplicate record. In Scenario 1, a repeated name is counted as a duplicate every time it appears after the first instance. If a name appears four times, one record is counted as unique and the other three are counted duplicates. The logic is used for Scenario 2, except that a matching name and county must appear.

**Table 5** Duplicate Rebuilt and Salvage Title Records by Scenario

Scenario	Name	Address	City	State	County	Unique	Duplicates	Total
1	✓					263,958	233,298	497,256
2	✓				✓	307,659	189,597	497,256
3	✓	✓	✓			357,822	139,434	497,256
4	✓	✓	✓	✓		357,829	139,427	497,256
5	✓	✓	✓	✓	✓	359,947	137,309	497,256

The number of unique and duplicate record counts differ significantly depending on the criteria used to identify duplicates. Based on these results, it appears the majority of titles are held by individuals. Of course, the data represent a snapshot, and the title information merely indicates the most recent vehicle owner. At some point, the expectation is that most vehicles go to individuals. However, vehicles transferred out of state remain in the database as a title for the last holder, and if that is a business, its name remains on file. A sizable percentage of these are held by businesses. Not all duplicates can be assumed to be a business, however, there are reasons the numbers may undercount duplicate titles. Scanning through individual records, there are several reasons why duplicate records get undercounted. First, small iterations in names such as the presence or absence of a middle initial, or the presence or absence of “INC”, “LLC”, and “CO” in some titles and not others, can cause the software program to overlook duplicates. Small changes in street number or address can also cause the program to miss duplicates. Overall, the number of duplicate records and therefore individual vs. commercially held rebuilt and salvage titles is challenging to determine.

#### 4.5 Conclusion

The number of rebuilt and salvage titles issued in Kentucky increased by 31 percent between 2014 and 2018. County clerks, working in conjunction with administrators in the DMVL, are now issuing more than 110,000 rebuilt and salvage titles annually. Most of the rebuilt and salvage titles are the in-state, blue-colored titles, but the number of red titles issued for out-of-state salvage and rebuilt vehicles has been climbing. Given that these vehicles are possibly coming into the state with mechanical issues, water damage, or are possibly stolen, it is imperative for DMVL administrators to understand where these vehicles are titled and the entities involved in such practices. For the most part, rebuilt and salvage title issuance is very highly correlated with the overall population of the county. Counties in the southern part of Central Kentucky tend to issue more rebuilt and salvage titles than other parts of the state, particularly red titles.

The economic impact of rebuilt and salvage titles in Kentucky, based on either the vehicle’s taxable value or sales price, was estimated to be about \$331 million in 2018. The distribution of these sales are skewed toward a small group of counties. The top five counties alone account for \$103 million of the state total.

The median rebuilt and salvage vehicle cost in 2018 was \$1,785 and \$3,136, respectively. High-end cars and trucks inflate the typical purchase cost, making the median the preferable measure. Neither median nor average vehicle cost is related to per capita income in the county. Attempts have been made to determine the relative shares of rebuilt and salvage vehicles belonging to individual owners as opposed to vehicle dealers, but precise numbers are difficult to quantify for a number of reasons.

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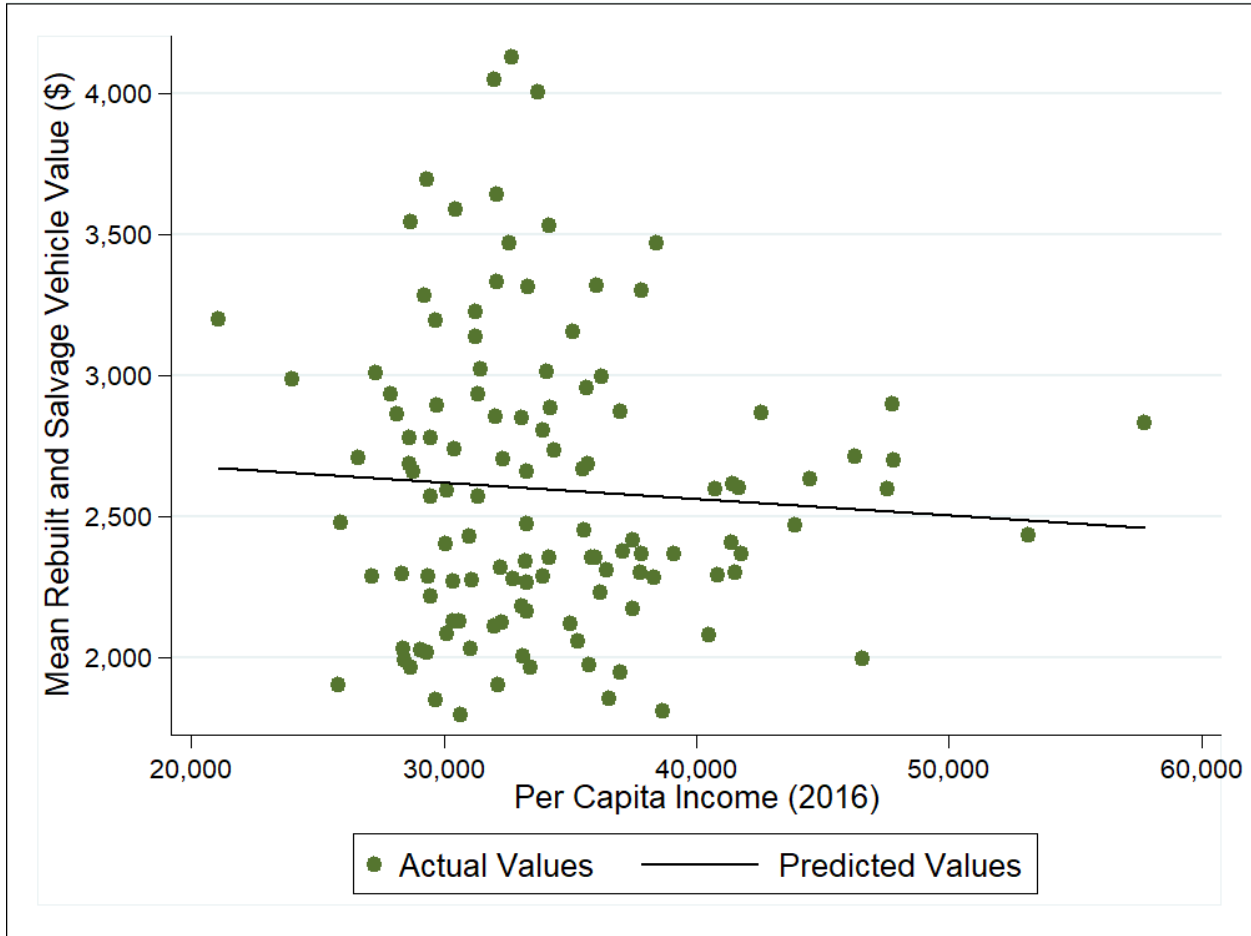
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**Figure 24** Scatterplot of Per Capita Income and Mean Rebuilt and Salvage Vehicle Value, 2018