

TOTALED

THE REAL COSTS OF VEHICLE LOSS

How Total Loss Determinations
Reshape Consumer Finances
and Mobility

MAY 2026

TOTALED

The Real Costs of Vehicle Loss

Prepared by Depth Services for the Automotive Body
Parts Association (ABPA)



TOTALED: The Real Costs of Vehicle Loss

A Qualitative Study of Consumer Outcomes Following Vehicle Total Loss Determinations

Dr. Blaire O’Neal

Depth Services

Prepared for

The Automotive Body Parts Association (ABPA)

ABSTRACT

This report examines how vehicle total loss determinations affect U.S. households in practice. Drawing on thirty in-depth interviews with consumers who recently experienced a total loss following a collision, the study explores how valuation processes, repair dynamics, and institutional constraints shape financial and mobility outcomes. The findings identify recurring patterns of asset loss, debt accumulation, and constrained replacement decisions, and introduce the Total Loss Cascade as a framework for understanding how these effects compound over time.

DISCLAIMER

This report is intended to offer a general discussion of market conditions, trends, and factors affecting repair costs and total loss determinations, as well as providing policy recommendations for lowering costs and improving consumer outcomes. The content herein is not provided, and should not be interpreted, as commentary on any specific party, events, or transaction, other than the individual consumers interviewed for this study. This report does not reference or opine on any particular dispute, litigation, or legal proceeding, whether pending or contemplated.

SUGGESTED CITATION

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EXECUTIVE SUMMARY

KEY FINDINGS

- Structural changes in the collision repair ecosystem including vehicle technology complexity, parts pricing dynamics, and labor pressures are increasing the Total Cost of Repair (TCOR).
- At the same time, narrowing vehicle actual cash values (ACVs) used in insurance valuation have reduced the margin between repairability and total loss, increasing the likelihood that vehicles will cross insurer total loss thresholds.
- The Automotive Body Parts Association (ABPA) commissioned a qualitative study including thirty consumer interviews to understand how increasing total loss determinations impact American households.
- The results showed that total loss determinations frequently trigger short-term and long-term financial and mobility disruptions for consumers.
- Across the interviews, five recurring consumer impact pathways emerged, including debt transition and amplification, wealth depletion and asset liquidation, mobility instability, labor intensification, and erosion of institutional trust.
- These dynamics form a cascading process—what we call the Total Loss Cascade—through which financial and mobility pressures can compound over time.

Vehicle total loss determinations are a routine component of the insurance claims process. When the estimated cost of repairing a damaged vehicle exceeds a specified percentage of the vehicle's pre-collision value, insurers classify the vehicle as a total loss and resolve the claim through a settlement payment. Although the process itself appears straightforward, the conditions that determine whether a vehicle crosses this threshold are shaped by broader economic and institutional forces within the modern collision repair ecosystem.

In recent years, several of these forces have shifted in ways that increase the likelihood that vehicles will be declared total losses. Repair costs have risen as modern vehicles incorporate increasingly complex technologies, including advanced driver assistance systems (ADAS), embedded sensors, cameras, and integrated electronic systems. Not only are these parts more elaborate and more expensive, but they are also increasingly subject to design patents that constrain the supply of affordable alternatives.

At the same time, the U.S. vehicle fleet has aged and used vehicle prices have moderated following pandemic-era inflation, narrowing the vehicle values used in total loss calculations. When rising repair costs intersect with lower vehicle values, the margin between repairability and total loss narrows, increasing the rate of total loss determinations.

While these dynamics help explain why total loss determinations are occurring more frequently, they do not capture how households experience these outcomes in practice. To examine this dimension, the Automotive Body Parts Association (ABPA) commissioned a qualitative research study based on thirty in-depth interviews with consumers across the United States who had experienced a total loss declaration following a collision.

Participants described a consistent pattern in which the loss of a vehicle triggered a sequence of financial and logistical adjustments that extended well beyond the insurance claim itself. These adjustments fit neatly into six recurring consumer impact pathways:

- debt transition and amplification
- wealth depletion and asset liquidation
- replacement gap and asset degradation
- mobility instability and transportation disruption
- labor intensification
- erosion of institutional trust

For many of the consumers in our study, settlement payments did not fully restore their prior financial or mobility position, putting them in a weaker position as they attempted to re-enter the vehicle market, which had significant downstream effects on their finances. Participants frequently described taking on new loans, drawing down savings, or accepting older or less reliable vehicles in order to regain critical transportation. Some experienced extended periods without reliable mobility that precipitated job losses, while others reported taking on additional hours, jobs, and gig work to manage new financial obligations after a total loss.

This report's major contribution is the concept of the Total Loss Cascade which describes how collision events move through the insurance valuation system and into the broader economic realities faced by households as they attempt to restore, or adapt to life without, reliable transportation. Across the interviews, existing household vulnerabilities like income constraints, caregiving responsibilities, or existing debt, created compounding feedback loops that intensified the consequences of vehicle loss.

Taken together, the evidence presented in this report suggests that total losses are not simply static, technical insurance classifications, but products of dynamic, interacting systems within the automotive and insurance industries with significant impacts on the financial resilience of American households. We encourage stakeholders and legislators to explore potential pressure-release valves, including increased transparency in the total loss determination process, greater consumer involvement, and improved access to safe, affordable parts alternatives. Legislation like the REPAIR Act (H.R. 1566/S. 1379) and the SMART Act represents concrete steps in that direction.

PART I

THE ECONOMICS OF TOTAL LOSS

How repair costs, valuation methods, and institutional decision frameworks shape total loss outcomes.



The Economics of Total Loss Determinations

Total loss determinations are commonly understood as the outcome of a repair-to-value calculation. In its simplest form, the determination can be expressed as:

$$\text{TCOR} \geq \text{X\% OF ACV}$$

The equation states that when Total Cost of Repair (TCOR) equals or exceeds a predetermined percentage (which varies by insurer and jurisdiction) of the vehicle's Actual Cash Value (ACV), the vehicle is declared a total loss. If repair costs fall below that threshold, the vehicle proceeds through the repair process.

At a technical level, the equation appears straightforward. It establishes a rule for determining whether repair is economically justified relative to the value of the vehicle. However, both sides of the equation are shaped by institutional practices, valuation methodologies, and evolving market conditions. These factors are dynamic and can influence whether a vehicle ultimately remains repairable or is classified as a total loss.

The Total Cost of Repair (TCOR) represents the full scope of work required to restore a vehicle to pre-loss condition. This number is impacted by various conditions within the collision repair ecosystem and the broader automotive industry. For instance, increasingly technologically complex vehicles introduce more complicated repairs that require specialized tooling and expensive labor. These repairs also require more parts—parts whose supplies are increasingly constrained by design patent protections or proprietary manufacturing specifications.

On the other side of the equation, the Actual Cash Value (ACV) is determined through valuation models that incorporate dynamic elements like comparable vehicle transactions, depreciation curves, mileage adjustments, condition assessments, and geographic price variation. These methodologies are designed to maintain consistency across claims, but changes in market conditions and valuation inputs can influence the resulting vehicle value used in total loss calculations.

When rising repair costs intersect with stable or declining vehicle values, the margin between repairability and total loss narrows. Over time, shifts in these repair economics and valuation conditions can change the frequency with which vehicles are declared total losses.

Upstream Drivers: Why Repair Costs Are Rising

In 2025, approximately 23 percent of auto claims across all loss categories were classified as total losses, up from roughly 19 percent in 2019 (CCC Intelligent Solutions [CCC], 2026). While total loss outcomes depend on both repair cost and vehicle value, this increase reflects measurable cost pressures across the collision repair ecosystem.

Repair costs have risen across multiple dimensions. Consumer Price Index data indicate that motor vehicle repair and maintenance costs have increased approximately 49 percent since 2019 (U.S. Bureau of Labor Statistics, 2026). Claims data similarly show rising repair severity, with average collision repair costs increasing from roughly \$3,100–\$3,200 in 2019 to \$4,818 by 2025. For vehicles 6 years old or newer, the average TCOR for 2025 is even higher at \$5,721, approximately \$2,039 (+55.4%) more on average than vehicles 7 years or older (CCC, 2026).

While the TCOR is subject to macroeconomic influences like inflation and trade volatility, the trends are reflective of structural changes in parts supply and pricing, vehicle technology complexity, labor shifts, and operational constraints (Fig. 1.2).

Parts

Collision parts accounted for approximately 42 percent of total repair costs in non-comprehensive repairable claims in 2025 (CCC, 2026). Given their prominent role in the TCOR, increases in average price of parts and the number of parts required per repair places clear upward pressure on total repair estimates. For instance, the average number of parts required per non-comprehensive repairable appraisal has increased from 10.6 in 2019 to 13.0 in 2025 (CCC, 2026). This increase reflects the growing integration of sensor housings, brackets, wiring harnesses, and multi-component assemblies within vehicle structures.

Not only are more parts being used for repair, but the average cost of commonly repaired collision parts is increasing year-over-year. PartsTrader data, as reported in industry coverage, show that average new Original Equipment Manufacturer (OEM) part prices increased from approximately \$446 in 2020 to roughly \$554 in 2024—an increase of roughly 34 percent. During the same period, aftermarket alternatives saw a more subdued increase of roughly 21 percent from approximately \$254 to \$307 (Autobody News, 2025).

Historically, the presence of aftermarket equivalents has provided affordable part alternatives that introduce price competition into the replacement parts market, helping moderate overall repair costs. However, the availability of these alternatives has been limited by the use of design patents on individual collision components, which automobile manufacturers have increasingly sought for visible exterior parts.

Design patents protect the ornamental appearance of exterior components frequently replaced during collision repair, such as bumpers, fenders, and headlights. Because insurers generally require repairs to restore vehicles to their pre-collision condition using “like kind and quality” components, replacement parts must visually match original equipment. Design patents prevent this matching, and remain in force for up to fifteen years from the date of grant—a period that often overlaps with the years in which vehicles are most likely to experience collision repairs, significantly limiting consumer options.

Where quality aftermarket alternatives are available, they can reintroduce price competition and expand the range of viable repair pathways. By lowering the cost of replacement components, these alternatives can decrease the TCOR. In cases where repair estimates approach total loss thresholds, even modest reductions in parts costs can influence whether a vehicle remains repairable or is instead classified as a total loss.

Technology

Modern vehicles incorporate increasing levels of embedded technology. Advanced driver assistance systems (ADAS), distributed sensors, cameras, electronic steering components, and integrated software systems are now standard across much of the vehicle fleet (Fig. 1.1). Following even relatively minor collisions, these systems frequently require diagnostic scanning, recalibration, and software reprogramming in order to restore safety systems to proper function. Sensors located in high-impact zones such as bumpers, grilles, mirrors, and headlamps introduce additional parts and calibration requirements that increase repair costs. For example, a 2023 study by the American Automobile Association (AAA) found that the average cost of replacing ADAS components in a minor front collision was \$1,540.92; for a side mirror, the ADAS components added \$1,067.42 to the repair bill.

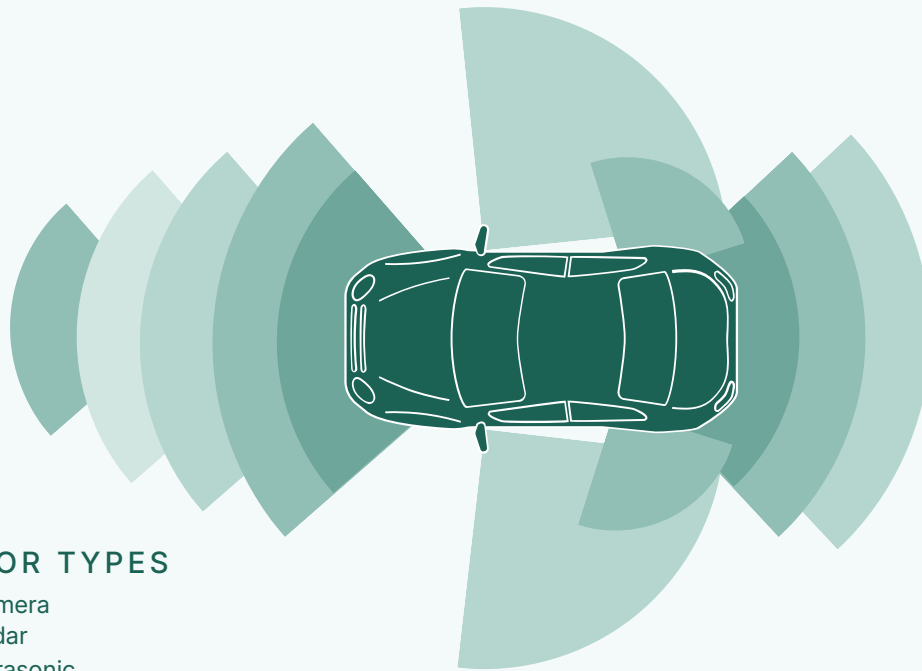
In addition to raising parts replacement costs, these technologies also introduce new, expensive labor categories and specialized tooling requirements. Independent research from AAA estimates that ADAS-related parts, labor, and calibration procedures can account for approximately 38 percent of repair costs in certain collision scenarios (2023).

Indeed, CCC (2026) reports that calibrations are increasingly common among repair estimates, representing 28.3% of all claims in 2025. More technologically complex repair processes increase repair cycle times, adding to indirect costs that impact the TCOR like extended rental vehicle periods.

FIGURE 1.1

Modern Vehicles Integrate Overlapping Sensor Systems

Modern vehicles rely on multiple integrated sensing systems that operate simultaneously across the vehicle.



SENSOR TYPES

- Camera
- Radar
- Ultrasonic
- LiDAR

Implication

Because these systems operate in coordination, repairs often require multi-system calibration, increasing both cost and technical complexity.

Labor

As vehicles become more technologically complex, the labor required to diagnose, repair, and calibrate damaged systems has expanded. Modern repair procedures frequently include electronic diagnostics, system scanning, sensor calibration, structural measurement, and software resets. These processes require specialized equipment and certified technicians and can increase the time required to complete repairs.

At the same time, the collision repair industry faces persistent workforce shortages and rising wage pressures. Repair facilities must compete to recruit and retain technicians capable of performing increasingly complex repairs, contributing to higher labor rates. CCC (2026) data show that average collision labor rates increased from approximately \$53 per hour in 2020 to nearly \$67 per hour by 2025, representing an increase of roughly 26 percent.

Supply and Friction Pressures

Operational frictions within the collision repair ecosystem can further increase repair costs and extend repair timelines.

Parts availability remains a persistent constraint. Repair facilities frequently experience delays obtaining required components. When parts are unavailable, repairs may stall entirely, extending repair cycle times and increasing indirect costs such as rental vehicle expenses. Where aftermarket alternatives are available, they can increase part supply and introduce price competition that helps moderate repair costs.

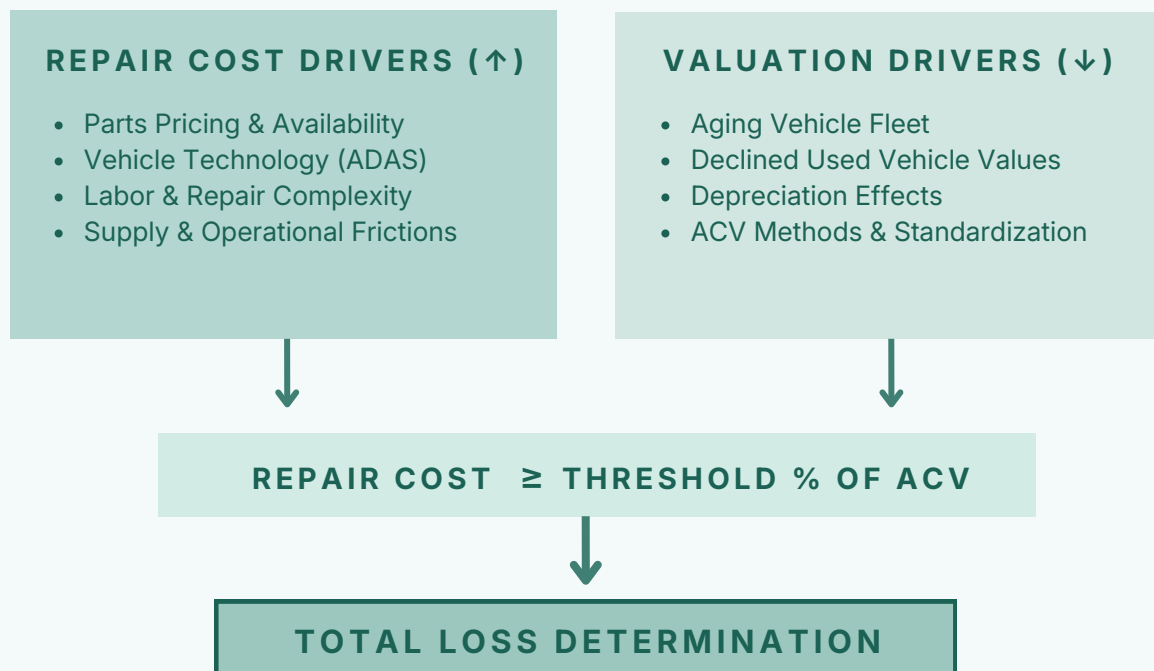
A separate source of friction involves regulatory scrutiny and liability exposure. Insurers and manufacturers increasingly require repairers to follow documented OEM repair procedures and maintain detailed compliance documentation, adding administrative and operational costs to the repair process.

A third dynamic involves the growth of manufacturer-certified repair networks, which require specific equipment, technician training, and adherence to OEM repair protocols. While these programs are designed to maintain repair quality and brand consistency, they also reinforce manufacturer repair standards and often explicitly favor the use of OEM replacement parts, further shaping repair practices across the collision repair ecosystem.

FIGURE 1.2

Upstream Drivers of Rising Total Loss Determinations

Rising repair costs and declining vehicle values increase the likelihood of total loss.



Valuation Architecture: Why ACV is Narrowing

Insurers typically compare TCOR to ACV when determining whether a vehicle is economically repairable. When repair costs approach or exceed a specified percentage of ACV—often between 70 and 80 percent, depending on insurer practices and state regulations—the vehicle is classified as a total loss. While this report does not evaluate the appropriateness of specific valuation methodologies, it does examine how these methodologies interact with rising repair costs to shape total loss outcomes.

In recent years, several structural factors have narrowed ACV across the vehicle fleet, increasing the likelihood that vehicles cross these economic thresholds including the aging vehicle fleet, normalization of used vehicle prices following pandemic-era inflation, and standardized valuation practices.

Aging Vehicle Parc

The U.S. vehicle fleet has steadily aged over the past decade. The average age of light vehicles in the United States reached approximately 12.8 years in 2025, rising steadily since 2020 when it was 8.9 years old (S&P Global Mobility, 2025). Older vehicles have a higher probability of being declared a total loss given they generally carry lower market values due to depreciation, even when they remain mechanically reliable.

Indeed, as the vehicle parc ages, a larger share of vehicles involved in collisions have relatively low pre-loss market values. Because ACV reflects the depreciated value of the vehicle rather than the cost required to restore it, older vehicles can reach total loss thresholds at comparatively modest repair cost levels. In practice, this means that repair estimates that might previously have remained within repairable thresholds can instead exceed the economic viability threshold for older vehicles.

This dynamic is particularly relevant in the United States, where consumers are increasingly retaining vehicles for longer periods due to higher new-vehicle prices and extended loan terms. The result is a growing population of vehicles that remain in active use but carry relatively low residual market values compared to the cost of modern repairs.

Declining Used Car Values

Vehicle valuation dynamics have also shifted following the sharp increase in used vehicle prices during the COVID-19 pandemic. Supply shortages and disruptions in new vehicle production pushed used vehicle prices to historically elevated levels between 2020 and 2022. As supply chains recovered and new vehicle production stabilized, used vehicle prices began to normalize. Yet, even as peak auction prices have moderated across the market, the average used vehicle price is currently rising—as of early 2026, the annual average used car value is approximately \$25,000, surpassing the 2018 annual average of ~\$20,000 (Cox Automotive, 2026).

While this trend may provide downward pressure on total loss rate determinations, as the consumer findings in this report illustrate, it produces a financial shock as households attempt to reenter the vehicle market, where average new car prices exceed \$50,000 and rising used car values provide little relief (Cox Automotive, 2025).

ACV Calculation and Valuation Standardization

Insurers rely on standardized valuation methodologies when calculating ACV. These calculations typically draw on third-party valuation platforms such as CCC Intelligent Solutions, Mitchell, or Audatex, which estimate pre-loss vehicle value based on comparable vehicle listings, mileage adjustments, condition factors, and regional market data.

These valuation systems apply structured depreciation adjustments and normalization practices to maintain consistency across claims. While these methodologies are designed to reflect prevailing market values, they can produce ACV estimates that vary depending on the selection of comparable vehicles, market conditions, and methodological assumptions — particularly when comparable listings are drawn from lower-priced vehicles or wholesale markets. Even modest downward adjustments in valuation can influence whether a vehicle is deemed economically repairable. In combination with rising repair costs, these valuation dynamics contribute to the increasing frequency of total loss determinations.

Decision Architecture: From Calculation to Classification

The boundary between repairable and total loss determinations is shaped not only by repair economics, but also by institutional decision frameworks within the claims process. Total loss determinations occur within structured claims management systems designed to evaluate repair feasibility under conditions of uncertainty.

Collision repair estimates are often preliminary at the outset of the claims process. In 2015, the majority of collision appraisals went through staff channels (47%). Today, photo appraisals have become a standard part of appraisal for minor collisions, representing 27% of appraisals (CCC, 2026). While this style of assessment expedites the claims process, it only captures visible damage on the vehicle's exterior. Additional damage may be discovered during vehicle teardown, particularly in components concealed beneath exterior panels or structural assemblies. As a result, initial repair estimates frequently increase as supplemental damage is identified during the repair process.

Insurers and repair facilities account for this uncertainty when evaluating vehicles whose estimated repair costs approach total loss thresholds.

Repair cycle time and associated administrative costs can also influence how borderline claims are evaluated. Repairs that involve complex structural work, specialized parts sourcing, or extended diagnostic procedures may introduce uncertainty around completion timelines. Longer repair cycles can increase claim management costs, including extended rental vehicle expenses and administrative oversight, which may factor into assessments of repair feasibility.

Insurers may also consider the funds that could be recovered when vehicles declared total losses enter established salvage recovery channels. During salvage auctions and subrogation processes, insurers can recover a portion of claim costs. This consideration is part of the broader economic context within which claims decisions are made.

From System Mechanics to Consumer Experience

The preceding sections explain how total loss determinations occur within the repair and insurance system. Rising repair costs, evolving vehicle technologies, valuation methodologies, and claims management practices all influence whether a damaged vehicle crosses the repair-to-value threshold.

What these dynamics do not capture is how those determinations are experienced by the households navigating them. For many consumers, the loss of a vehicle is not simply a technical insurance outcome. Personal vehicles function as essential infrastructure for employment, caregiving, and daily life. When that asset is removed, the consequences extend beyond the claim itself into financial stability, mobility, and household decision-making.

To examine how these dynamics unfold in practice, this report draws on 30 in-depth interviews with consumers who recently experienced a total loss. The following section presents those findings.

PART II

THE CONSUMER EXPERIENCE OF TOTAL LOSS

How total loss determinations reshape household finances, mobility, and decision-making.

Based on 30 consumer interviews across diverse financial and mobility contexts.



Consumer Study Overview

To examine how total loss determinations affect vehicle owners in practice, the Automotive Body Parts Association commissioned a qualitative study based on in-depth interviews with consumers who had experienced a vehicle being declared a total loss following a collision within the past four years.

Thirty participants from across the United States were recruited through a screened research panel. The sample reflects moderate-income households with varied financing status and a range of vehicle ages at the time of loss. Interviews explored the claims process, settlement outcomes, replacement decisions, and the resulting financial and mobility impacts.

The study was designed to identify recurring patterns in how households experience total loss events, capturing decision-making processes, adaptations, and institutional interactions that are not easily observed through survey data alone.

The findings that follow synthesize these interviews to illustrate common real-world outcomes after a total loss determination. Additional details on research design and methodology are provided in the appendix.

Findings

The consequences of a total loss determination extend well beyond the insurance claim itself. Across much of the United States, personal vehicles function as essential infrastructure for employment, caregiving, and daily mobility. When a vehicle is declared a total loss, households must rapidly reorganize their finances and transportation arrangements to maintain continuity in their daily lives. In the weeks and months that follow, additional repercussions often emerge as households attempt to replace the lost vehicle and reestablish stable access to transportation.

In our interview analysis, we identified recurring patterns in these disruptions, which we organized into distinct consumer harm pathways. We also identified key features of the claims and valuation process that consistently shape how these outcomes unfold and present opportunities for reform.

FIGURE 2.1

Sample Characteristics

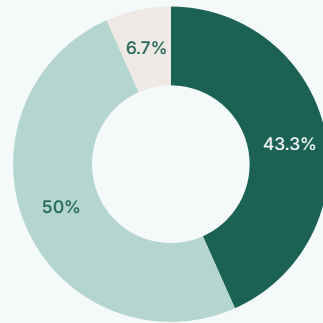
PARTICIPANT LOCATIONS

Note: Geographic clustering reflects recruitment patterns rather than targeted regional sampling.

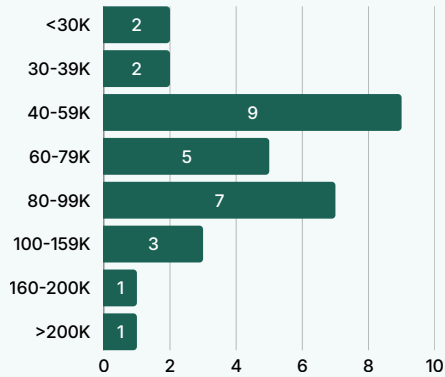


URBANACITY

● Urban ● Suburban ● Rural

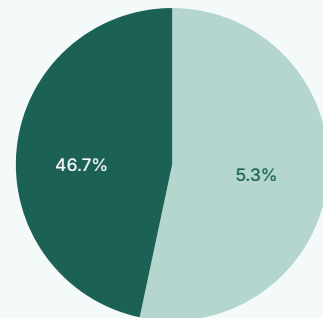


ANNUAL HOUSEHOLD INCOME

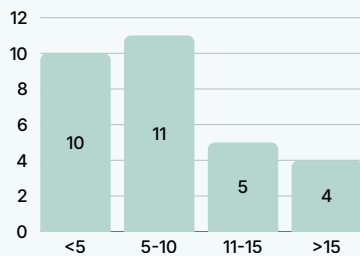


LOAN STATUS

● Financing ● Paid-Off



VEHICLE AGE AT LOSS



Consumer Harm Pathways

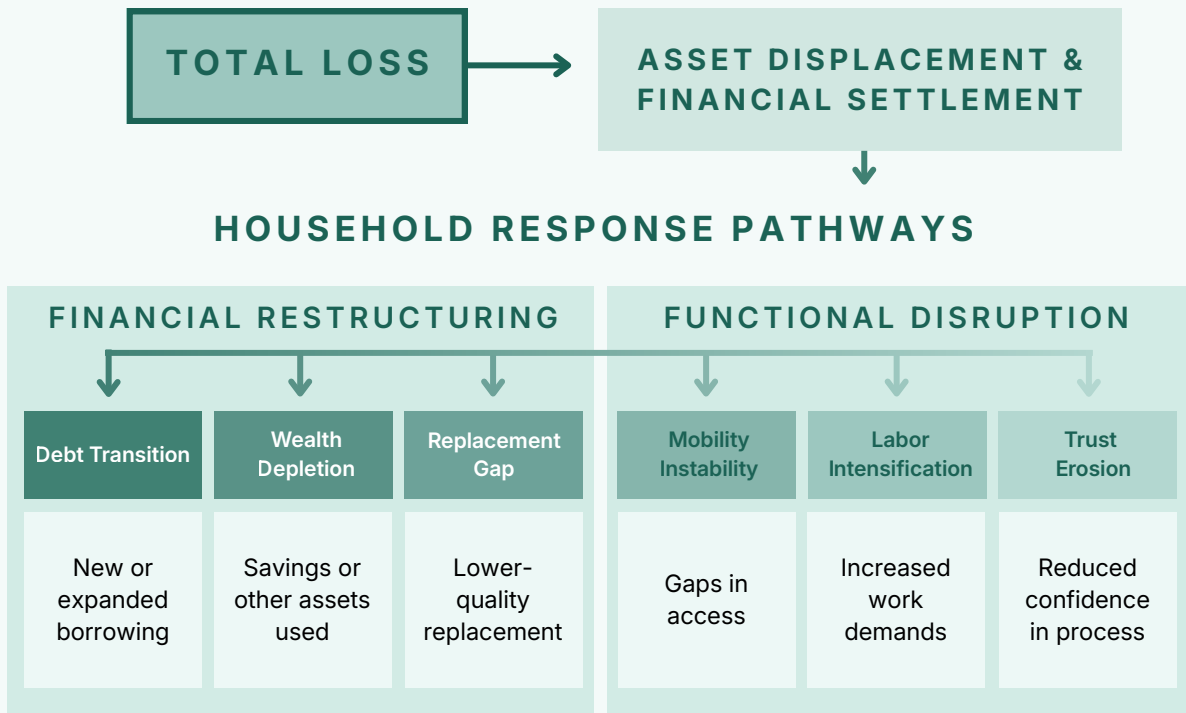
Across interviews, five consumer harm pathways emerged most consistently within the sample:

- Debt transition and amplification
- Wealth depletion and asset liquidation
- Replacement gap and asset degradation
- Mobility instability and disruption
- Labor Intensification and Income Loss

These pathways represent the primary mechanisms through which total loss events translated into downstream financial and mobility impacts on American households. We present them as distinct patterns for analytical clarity; however, in practice, participants rarely experienced them in isolation, instead describing overlapping financial, mobility, and labor impacts that unfolded simultaneously as they attempted to restore transportation (Fig. 2.2).

FIGURE 2.2

Consumer Harm Pathways



Debt Transition and Amplification

A recurring pattern across interviews was the conversion of vehicle ownership from an asset position into new or expanded debt exposure. When a vehicle is declared a total loss, households must replace a critical mobility asset under significant time pressure and with limited financial flexibility. Because insurance settlements do not always restore the owner's prior financial position—and delays in replacement can disrupt employment and caregiving responsibilities—many households must rush the replacement process, accepting new financing under unfavorable terms in order to restore mobility quickly.

This pathway emerged in several structural forms across the sample depending on the consumer's financial position at the time of the collision. Nonetheless, they all altered household financial trajectories, introducing new or more burdensome repayment obligations at the point of vehicle replacement.

Variation 1: Asset-to-Debt Transition

For participants who owned their vehicles outright prior to the collision, insurance settlements were often insufficient to purchase a comparable replacement vehicle. In these cases, households that had achieved a debt-free ownership position were pushed back into financing to restore transportation. Patrick G. (Case Profile 1, page 18) provides a clear example.

Variation 2: Negative Equity Amplification

For those still making payments at the time of the collision, insurance payouts sometimes fell short of the remaining loan balance, leaving households with negative equity that required additional borrowing to resolve. For example, Matt H. (see Appendix A, page 41) carried an outstanding loan balance of \$10,000 after his insurance payout—a significant balance that greatly impacted his household's finances.

Variation 3: Loan Payoff Without Equity Recovery

In other cases, mechanisms such as gap insurance eliminated the participant's existing loan, but the remaining settlement left insufficient funds to purchase a comparable replacement vehicle. Danielle P. (see Appendix A, page 42) provides an example—she was paying off her a low-interest loan on her vehicle before her collision; now, she is starting over with a new high-interest loan and nothing to show for her previous investment.

CASE PROFILE 1

DEBT TRANSITION AND AMPLIFICATION ASSET-TO-DEBT TRANSITION

Patrick G.

Greenville, South Carolina

Annual HHI: \$60,000-79,000

Patrick's vehicle, a 2006 Toyota Corolla that had recently been paid off, was declared a total loss after a side-impact collision damaged the vehicle's frame. Living in an area with limited public transportation, Patrick relied on the vehicle to commute to work and to assist his 87-year-old mother with transportation and caregiving.

His insurer issued a settlement of approximately \$3,000-\$5,000. To regain transportation, Patrick financed a 2015 Toyota Corolla through a five-year loan with monthly payments of about \$290 and an interest rate near 19 percent.

"Of course, being a little bit of the age of the car, [we] didn't really get the settlement I wanted, but we were able to put it to another car, which I'm driving now, but still having to make car payments every month. And I still think it was a little expensive for what we were getting..."

Key Transition

Starting Position

Paid-off vehicle (no existing debt)

Total Loss Outcome

Insurance payout insufficient for replacement

Recovery Mechanism

New auto loan: ~\$290/month | 60 mo. | ~19% APR

Patrick's experience illustrates how total loss determinations can convert a previously debt-free mobility asset into a long-term financial obligation.

Wealth Depletion and Asset Liquidation

Another pattern we identified involved households drawing down accumulated assets to fund the financial gaps created by total loss events. Unlike cases where consumers relied primarily on new borrowing, these households liquidated resources that had been accumulated for other purposes—such as savings, retirement funds, or other forms of equity—in order to cover replacement shortfalls or support vehicle financing. This often required redirecting resources intended for longer-term financial stability toward immediate transportation needs.

This pathway appeared in several structural forms across the sample, depending on the type of assets available and the scale of the financial shortfall; however, all required households to reallocate resources that had been accumulated for future stability in order to restore transportation.

Variation 1: Savings Depletion

Some households addressed the replacement gap by drawing directly from savings that had been set aside for future goals, such as education or major planned expenses. For example, Fatimah A. (see Appendix A, page 43) had to pull from her college fund to purchase a comparable vehicle because the insurance settlement fell short. While this approach avoided immediate borrowing, it required households to forgo or delay those planned uses in order to restore transportation.

Variation 2: Retirement Asset Withdrawal

In other cases, participants drew on retirement savings to cover the replacement gap. While this strategy reduced reliance on new loans, it diminished funds intended for long-term financial security and introduced additional financial burdens, including potential tax liabilities. Jody W. (Case Profile 5, page 20) provided a clear example of this pathway variation.

Variation 3: Cross-Asset Spillover

In some instances, households leveraged housing-related assets to close the replacement gap. When shortfalls were large and financial flexibility was limited, participants refinanced their homes or drew on home equity to fund vehicle replacement. For instance, Elizabeth S. (see Appendix, page 44) refinanced her house to accommodate her new car loan after the collision.

CASE PROFILE 5

WEALTH DEPLETION AND ASSET LIQUIDATION RETIREMENT ASSET WITHDRAWAL

Jody W.

Oconomowoc, Wisconsin

Annual HHI: \$60,000-79,000

Jody's 2021 Hyundai Kona was declared a total loss following a collision involving multiple deer. At the time of the loss, the remaining balance on the vehicle was approximately \$12,000. Her insurer issued a payout of roughly \$16,000, which covered the loan and left a modest amount available for a replacement.

To purchase a new vehicle, Jody made a down payment of approximately \$10,000. Because the insurance payout did not fully cover the cost of replacement, she withdrew an additional \$5,000 from her retirement account to complete the purchase.

Although this approach allowed her to secure a replacement vehicle without relying entirely on new borrowing, it introduced longer-term financial consequences.

"Now I'm pulling it from my 401k and now that's a huge hit that I'm going to take... and I'm not getting any younger."

Key Transition

Starting Position

Financed vehicle with ~\$12,000 remaining balance

Total Loss Outcome

Insurance payout: ~\$16,000

Residual funds after loan payoff: ~\$4,000

Recovery Mechanism

~\$5,000 retirement withdrawal to complete replacement vehicle down payment

Jody's experience illustrates how total loss events can convert long-term retirement savings into immediate transportation financing, reducing future financial security in order to restore mobility.

Replacement Gap and Asset Quality Degradation

There was often a significant replacement gap following a total loss determination because insurance settlements did not provide sufficient funds to purchase a comparable vehicle in the used and new vehicle markets where prices have risen significantly. As a result, households restored transportation by purchasing lower-quality vehicles that were older, less reliable, or positioned in a lower market segment (Fig. 2.3). Unlike other pathways driven by financial restructuring, the replacement gap reflects a structural mismatch between settlement values and market prices, resulting in systematic downward substitution.

Participants frequently described this outcome as failing to make them whole. When asked what outcome they would have preferred, participants often stated that, rather than receiving a payout, they would have preferred insurance to place them in one of the comparable vehicles used in ACV calculations so they could avoid the vulnerabilities associated with a downgrade.

FIGURE 2.3

REPLACEMENT GAP AND ASSET QUALITY DEGRADATION

Participant	Previous Vehicle	Payout*	New Vehicle	Outcome
Kelly L.	2014 Chevrolet Malibu	\$2,800	2012 Ford Focus	Older vehicle, lower market segment
Katrice S.	2023 Mercedes SUV	\$8,800	2018 Dodge Challenger	Major downgrade in age and luxury class
Michael H.	2016 Ford F-150	-\$10,000	2008 Cadillac Escalade	Substantially older replacement vehicle
Rick B.	2020 Chevrolet Equinox	\$1,000	2017 Subaru Forester Premium	Older replacement vehicle
Rabia S.	2013 Toyota Sienna	\$10,000	2012 Toyota Sienna	Same model, older vehicle, repair needed

**Payout reflects the insurance settlement remaining after any amount applied to the outstanding loan balance.*

Mobility Instability and Disruption

Total loss determinations often triggered periods of mobility instability for households. Vehicle replacement was often delayed due to settlement timelines, financial constraints, or limited availability, leaving participants without a primary means of mobility. These gaps disrupted routine activities, reduced independence, and complicated the coordination of household obligations. We saw this in multiple forms across our sample, depending on the duration of the disruption and the strategies available to maintain mobility.

Variation 1: Borrowing Vehicles and Informal Networks

One of the most common responses to vehicle loss involved reliance on informal transportation networks, particularly borrowing vehicles from family members or friends.

While these arrangements allowed participants to maintain some mobility, they often introduced new forms of dependence, coordination with others, and anxieties about protecting others' vehicles. Michelle R. (Case Profile 7, page 24) provides a clear example of this pathway variation.

Variation 2: Fragmented and Unreliable Transportation Access

For other participants, rather than relying on a single substitute, they pieced together mobility through a combination of public transit, ride-share services, and borrowing. However, they often encountered reliability challenges and inconsistent access, which impacted work and family obligations. For example, for the 6-7 months Alexis P. was without a vehicle, he had to pass up work opportunities while cobbling together multiple alternative transit options (see Appendix A, page 45).

Variation 3: Alternative Transportation Substitution

Some participants' households made the decision to not return to vehicle ownership but instead adopted alternative transportation arrangements. They reported relying on a combination of rental services, ride-share platforms, or short-term vehicle access programs to restore transportation. For example, after his total loss, Austin C. chose to forgo vehicle ownership altogether, opting to instead sign up for a long-term rental car service (see Appendix A, page 46).

CASE PROFILE 7

MOBILITY INSTABILITY AND DISRUPTION

BORROWING VEHICLES AND INFORMAL NETWORKS

Michelle R.

Evans, Georgia

Annual HHI: \$60,000-79,000

Michelle's 2012 Toyota Camry was declared a total loss following a head-on collision caused by another driver. Although she received an insurance payout of approximately \$12,000, the amount was insufficient to secure a comparable replacement vehicle in the current market.

As a result, Michelle went without a personal vehicle for approximately seven months while searching for a replacement she could afford. During this period, she relied on her adult children's vehicles for essential trips and shifted to working from home to maintain employment. While these arrangements allowed her to maintain basic mobility, they required ongoing coordination and dependence on others.

"If I hadn't had my children living here, what would I have done? [A total loss] could mean the difference between having your life that you had beforehand or not... you could literally lose everything."

Key Transition

Starting Position

Independent vehicle access; primary reliance on personal vehicle for daily mobility

Total Loss Outcome

Seven-month gap without a personal vehicle; insufficient payout to secure comparable replacement

Recovery Mechanism

Reliance on family vehicles; shift to remote work to reduce transportation needs

Michelle's experience illustrates how total loss events can shift households into informal transportation networks, where mobility is maintained through dependence on others rather than independent vehicle access.

Labor Intensification and Income Loss

Another recurring pattern across interviews was the reorganization of household labor and income following a total loss. As replacement costs, new debt obligations, and gaps in reliable transportation created financial pressure, participants adjusted their employment strategies to stabilize their position. These adjustments took multiple forms, including increased work hours, additional jobs, expansion into gig work, and, in some cases, employment disruption or income loss when transportation constraints limited access to work. While these strategies helped restore short-term stability, they often came at the expense of long-term financial security, career progression, and time available for caregiving and other responsibilities.

Variation 1: Increased Work Hours and Secondary Employment

One of the most common responses involved increasing work hours or taking on additional employment to manage the financial pressures associated with vehicle replacement, new loan payments, or depleted savings. In some cases, this shift reduced time available for family, caregiving, or other personal responsibilities. Linda P.'s post-collision finance hike left her “begging” for more hours (see Appendix A, page 47).

Variation 2: Joining the Gig Economy

Other participants looked to the gig economy as a flexible strategy for generating additional income following financial disruption. Collin V. (Case Profile 11, page 26) is a clear example of this pathway variation.

Variation 3: Employment Disruption and Job Loss

In severe cases, transportation instability directly interfered with participants' ability to maintain employment, particularly when jobs required commuting to locations not easily accessible by alternative transportation. For example, Brianna D. had to change to a lower-paying job after losing her vehicle (see Appendix, page 48).

CASE PROFILE 11

LABOR INTENSIFICATION AND INCOME LOSS GIG ECONOMY EXPANSION

Collin V.

Mount Pleasant, Michigan

Annual HHI: \$60,000-79,000

Colin's 2019 Toyota RAV4 was declared a total loss following a side-impact collision. At the time of the loss, he still owed approximately \$21,000 on the vehicle and received an insurance payout of about \$17,000, leaving him responsible for roughly \$5,000 in remaining debt.

Without gap insurance, Colin took out a personal loan to cover the shortfall and delayed purchasing a replacement vehicle due to financial constraints and rising insurance costs. During this period, he relied on borrowing a family member's vehicle while working to pay off his loan and rebuild his savings. To accelerate this process, he expanded his participation in gig economy work, using ride-share and delivery platforms to generate supplemental income.

"I had a plan with the [previous] vehicle... [now] I've been doing a second job... I do Uber... rides and food delivery... trying to save up money."

Key Transition

Starting Position

Full-time employment; financed vehicle with remaining loan balance

Total Loss Outcome

Negative equity (~\$5,000) requiring personal loan; delayed vehicle replacement; increased insurance costs

Recovery Mechanism

Expansion into gig economy work (ride-share and delivery) to generate supplemental income and rebuild savings

Colin's experience illustrates how total loss events can prompt households to expand into gig economy work as a flexible, rapid-response strategy to manage financial disruption and restore mobility.

Institutional Trust and Perceived Fairness

Many participants expressed a decline in confidence in the fairness and transparency of the total loss process stemming primarily from confusion about how settlement values were determined and frustration when payouts did not allow them to obtain a comparable replacement vehicle. For Danielle P., the entire experience felt personal: “We are paying a premium for full coverage. We had the gap insurance, so we did everything right on our part as the consumers, and yet we got the F-word.” For them, settlement amounts were presented with limited explanation or opportunity for input, leaving them feeling powerless in the claim process. Xaveria T. from our sample explains, “To me, everybody in the equation was just out for themselves. Nobody really cared about my well-being... everybody had their own vested interest And It had nothing to do with me..” These experiences shaped how they viewed the institutions involved in the claims process including insurers, dealers, and lenders. After her negative experience with her dealership, Linda P. no longer has faith in carmakers: “ I warn everybody. I don't trust them at all.”

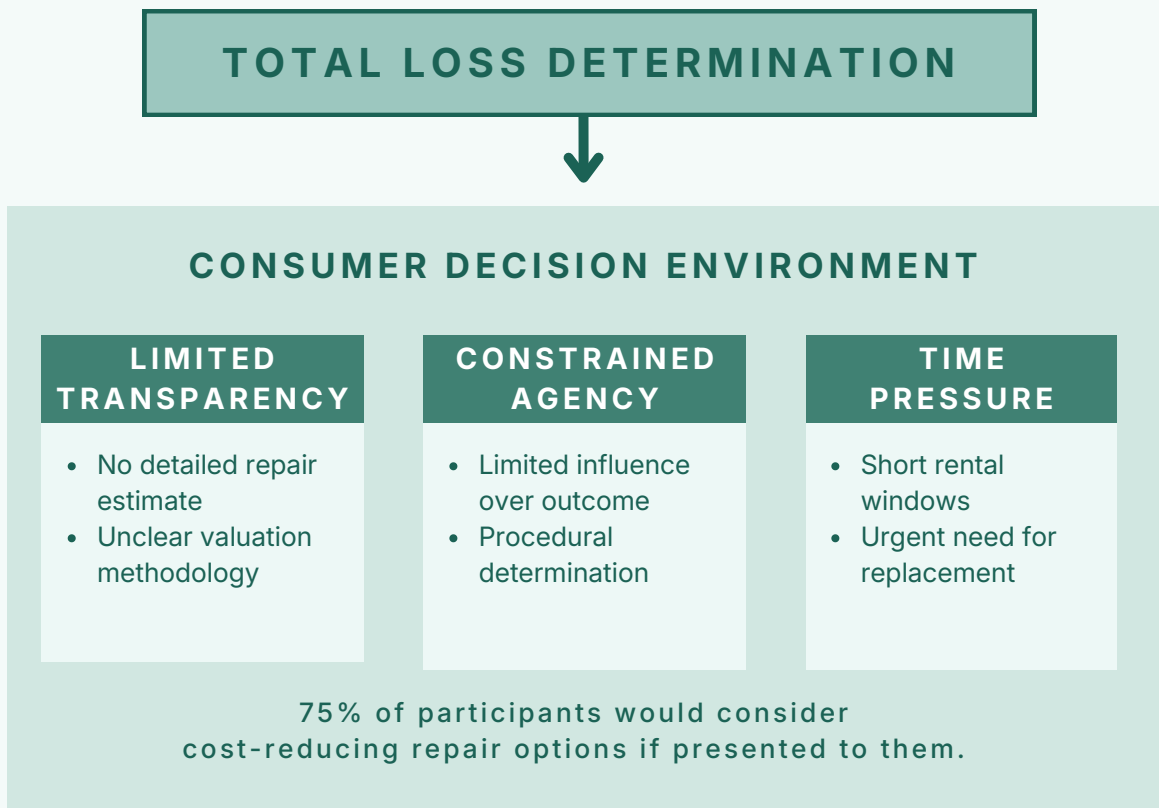
Process-Level Findings

In addition to these outcome pathways, participants consistently identified process-level constraints in claims and valuation process itself, including limited visibility into valuation decisions, constrained ability to influence outcomes, and time pressure to restore transportation. These dynamics shaped how total loss determinations unfolded and influenced the financial and mobility adjustments households made in response (Fig. 2.4).

FIGURE 2.4

Process-Level Constraints in the Total Loss Process

Consumers often navigate total loss decisions with limited information, constrained influence, and time pressure—restricting their ability to evaluate alternatives.



Transparency and Consumer Visibility in the Valuation Process

Over half of participants reported that they were not provided with detailed repair estimates or clear explanations of how settlement values were determined. Limited visibility into repair estimates and valuation methodologies reduced consumers' ability to evaluate alternatives to total loss. This opacity constrained consumer decisions and ability to request cost-saving options. For instance, over 75 percent indicated that they would have considered repairs using quality aftermarket parts or other cost-reducing options, had they been offered during the initial estimate. Without access to this information, the total loss determination was often experienced as a procedural outcome rather than a decision consumers could meaningfully assess.

KEY FINDING

Limited visibility into repair estimates and valuation methods prevented consumers from evaluating alternatives to total loss, even when lower-cost repair options may have been viable.

Constrained Consumer Agency in Total Loss Determinations

Participants frequently described the total loss determination as a decision largely controlled by institutional actors within the claims process. While consumers could accept or dispute settlement values, many reported limited practical ability to influence the repair-versus-total determination itself, often due to constraints in information, technical expertise, or time. In practice, this meant that households frequently accepted settlements they believed undervalued their vehicle, feeling they lacked the standing or resources to effectively challenge the outcome.

For many, the determination functioned less as a decision point than as a notification—one that arrived with limited explanation and left little room for meaningful input.

KEY FINDING

For many participants, total loss determinations functioned less as a decision point and more as a notification with limited opportunity for meaningful input.

Time Pressure and Replacement Constraints

The period following a total loss determination was commonly described as a compressed transition in which households needed to restore transportation quickly. Because personal vehicles are central to commuting, caregiving, and daily responsibilities, participants often faced limited time to search for replacement vehicles, evaluate financing options, or contest settlement values.

Rental coverage was a significant factor in these scenarios. For participants who had rental coverage through their insurance, coverage often ended shortly after the total loss determination, sometimes within only a few days. Once that coverage expired, households faced out-of-pocket transportation costs while attempting to secure a replacement vehicle, increasing pressure to make rapid decisions. Where rental coverage wasn't available, participants paid out of pocket, feeling the added pressure of expenses while they looked for a replacement. Under these conditions, participants reported making accelerated purchasing decisions or accepting less favorable financing terms in order to restore mobility.

KEY FINDING

Time pressure following total loss often led households to accept less favorable financial terms in order to restore mobility quickly.

Discussion

Across the preceding sections, participants' experiences of total loss reflect a set of recurring outcomes, including debt accumulation, savings depletion, constrained replacement decisions, mobility disruption, and shifts in labor and income. At the same time, participants consistently encountered process-level constraints—limited transparency, restricted agency, and time pressure—that shaped how these outcomes unfolded. While these dynamics are often experienced as discrete challenges, the findings suggest they are not independent. Instead, they reflect a sequence of interconnected adjustments that emerge as households attempt to recover from a single loss event. To capture this dynamic, this report introduces the **Total Loss Cascade**.

The Total Loss Cascade

The Total Loss Cascade describes how the effects of a single collision propagate through the repair and insurance system and into the financial and mobility realities of households. Rather than a discrete claims outcome, total loss operates as a process in which an initial asset loss triggers a series of financial and behavioral responses that can reinforce one another over time (Fig. 2.5).

THE TOTAL LOSS CASCADE

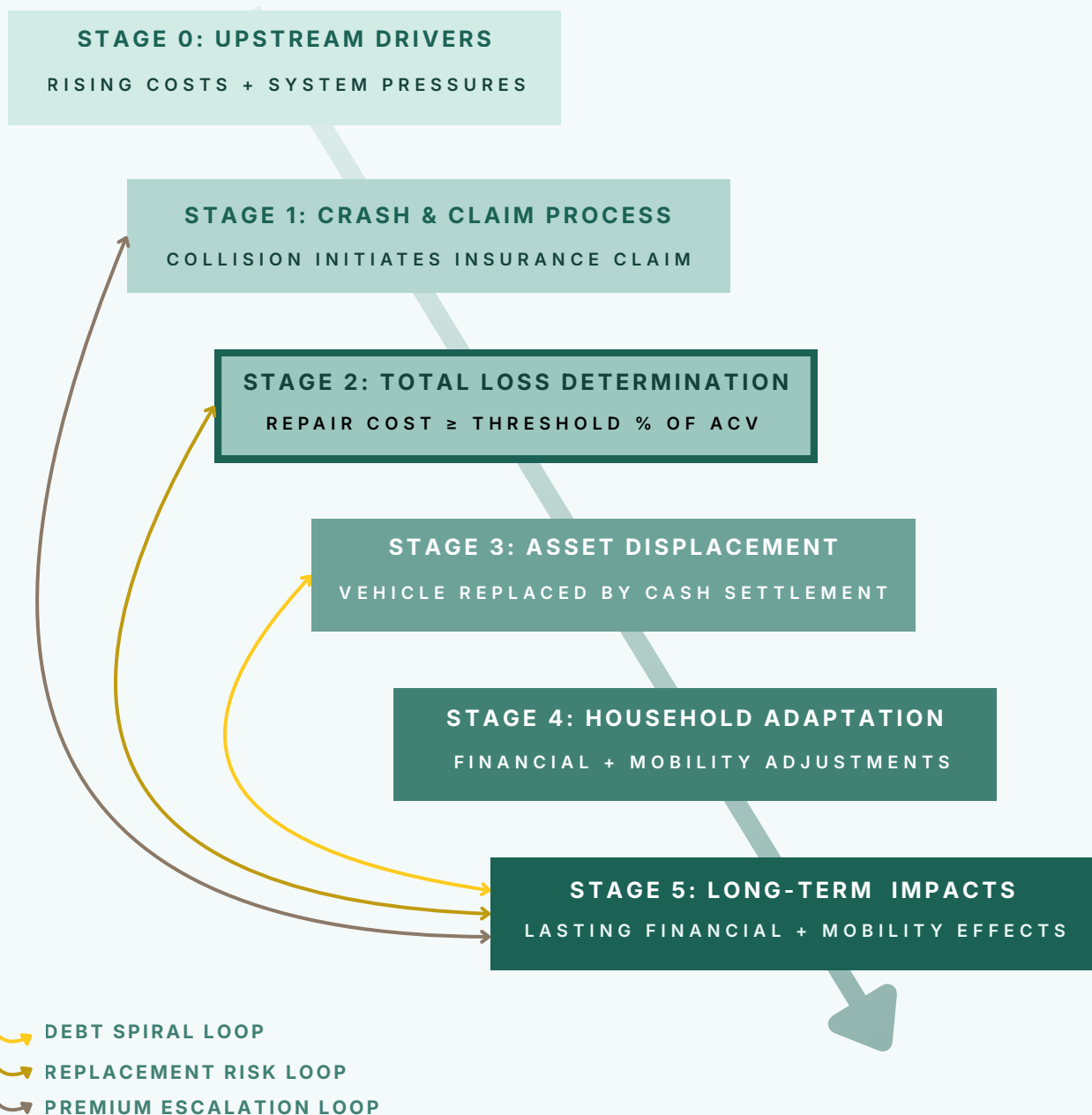
A framework for illustrating how a collision event moves through the institutional architecture of the repair and insurance systems and into the financial and mobility realities of American households.

Viewing total loss as a cascade makes it possible to trace how pressure accumulates within the system and translates into real-world outcomes for vehicle owners. It also highlights points within the process where targeted interventions may reduce downstream disruption without altering the core function of the insurance system.

The cascade is organized into six stages that represent key transition points in the total loss process, illustrating how a collision event is transformed into a financial settlement and how that settlement shapes subsequent household decisions and outcomes.

FIGURE 2.5

The Total Loss Cascade and Compounding Feedback Loops



Stage 0: Upstream Drivers | Institutional Context

In Part I, we provided background illustrating the institutional context of vehicle total losses, showing how total loss determinations are shaped by repair cost inflation, parts pricing dynamics, valuation methodologies, and vehicle financing structures. As we've seen, rising repair costs, increasing parts prices, and growing vehicle complexity influence how frequently vehicles cross the repair-versus-total threshold.

Stage 1: Crash Occurs | Entry into the Valuation System

The cascade begins with a collision event that triggers an insurance claim and initiates the valuation process. Repair costs are estimated and compared to the insurer's assessment of vehicle value.

Stage 2: Total Loss Determination | A Constrained Decision Point

When estimated repair costs exceed the particular insurer's threshold, the vehicle is declared a total loss and removed from the repair pipeline. The owner receives a settlement based on the insurer's valuation methodology.

Here, the determination often functions as a constrained decision point. Limited visibility into repair estimates and valuation methodologies, along with limited ability to influence the outcome, can restrict the extent to which consumers evaluate repair alternatives. Under these conditions, the determination is often experienced as a procedural outcome within the claims process.

Stage 3: Asset Displacement | Initial Financial Exposure

Once a vehicle is declared a total loss, the vehicle is replaced by a financial settlement that does not always restore the household's prior position. This conversion creates immediate financial exposure, particularly when settlement values fall short of replacement costs or outstanding loan balances.

This initial shock opens households to new or expanded financial obligations as they attempt to re-enter the vehicle market, often under significant time pressure.

Stage 4: Short-Term Household Adaptation

Following the loss of the vehicle, households must adapt quickly to restore mobility and stabilize their finances.

These adaptations include securing replacement vehicles through new borrowing or asset drawdowns, navigating temporary gaps in transportation, and adjusting income strategies to manage new financial pressures. The form and intensity of these adjustments vary based on financial resources, access to alternative transportation, and time constraints during the replacement process.

Stage 5: Long-Term Structural Impacts

Even after transportation is restored, the effects of total loss events can persist. Households may carry new debt, reduced savings, or lower-quality replacement vehicles that significantly alter their financial and mobility position relative to the pre-loss period. At this stage in the process, total loss events have reshaped both household financial trajectories and often damaged consumer confidence in the systems governing vehicle valuation and repair.

Compounding Vulnerability Over Time

A clear takeaway of the Total Loss Cascade is that the effects of a single loss event persist beyond the immediate claims process. However, the financial and logistical adjustments households make to restore transportation can alter their financial position in ways that carry forward into subsequent periods of vehicle ownership. This compounding vulnerability is the product of reinforcing feedback loops that materialize as households attempt to recover from one total loss event. These loops increase households' exposure to financial disruption in future claims and make subsequent losses more difficult to absorb.

Debt Spiral Loop

Following the loss of the vehicle, households must adapt quickly to restore mobility and stabilize their finances. These adaptations include securing replacement vehicles through new borrowing or asset drawdowns, navigating temporary gaps in transportation, and adjusting income strategies to manage new financial pressures. The form and intensity of these adjustments vary based on financial resources, access to alternative transportation, and time constraints during the replacement process.

KEY FINDING

New financing following a total loss can leave households with higher debt burdens and reduced equity, increasing the likelihood of negative equity in subsequent loss events.

Inferior Replacement Vehicle Loop

Replacement gaps may force households to obtain older or lower-quality vehicles than those they previously owned. These vehicles often carry lower market valuations or greater mechanical risk, increasing the likelihood that future collisions will again meet total loss thresholds. In this way, replacement downgrades can increase exposure to subsequent loss events, particularly when the replacement vehicle has a lower valuation relative to repair costs.

KEY FINDING

Replacement gaps often lead households to acquire lower-value or higher-risk vehicles, increasing the likelihood that future collisions will again meet total loss thresholds.

Premium Escalation Loop

Insurance premiums may increase following claims events, raising the fixed cost of maintaining vehicle ownership. Over time, higher premiums reduce household financial flexibility, leaving households more exposed to financial disruption when future claims occur.

KEY FINDING

Rising insurance premiums following claims events reduce household financial flexibility, increasing exposure to disruption in future loss scenarios.

Broader System Implications

The Total Loss Cascade reframes total loss as a multi-stage process through which collision events interact with repair economics, valuation practices, and household financial constraints. Within this system, pressure accumulates across repair costs, financing conditions, and household resources, shaping how losses are absorbed and how recovery unfolds. When these pressures intensify, a single accident can trigger financial adjustments that extend beyond the initial claim and increase vulnerability over time. However, the framework also highlights potential areas for intervention. Greater transparency in valuation processes, attention to repair cost dynamics, and maintaining competitive pressure in replacement parts markets may reduce the likelihood that total loss events translate into long-term household disruption.

Policy Recommendations and Areas for Further Review

Through the findings presented in this report, we identified several areas where additional examination may help reduce downstream disruption following total loss events and improve outcomes for households.

Repair Transparency Requirements

Limited visibility into repair estimates reduced consumers' ability to understand how repair costs were calculated and how those costs compared to total loss thresholds. Providing vehicle owners with full repair estimates and clear explanations of key cost drivers may improve transparency and allow consumers to more meaningfully assess repair alternatives.

Actual Cash Value (ACV) Methodology Disclosure

Participants frequently reported difficulty understanding how settlement values were determined, especially when they saw the replacement gap between their settlement payment and the vehicles on the market. Greater disclosure of ACV methodologies—including comparable vehicle selection and valuation adjustments—may improve transparency and reduce perceptions of procedural opacity.

Total Loss Threshold Review

Total loss determinations are governed by repair-to-value thresholds that vary across jurisdictions and insurers. As repair costs and vehicle complexity evolve, periodic review of how these thresholds interact with current repair economics may help ensure that determinations continue to operate as intended.

Competitive Dynamics in Replacement Parts Markets

Replacement parts represent a significant share of collision repair costs, and the availability of alternatives can influence whether vehicles remain repairable. Maintaining competitive conditions across the replacement parts market including OEM, recycled, and quality aftermarket parts may help moderate repair costs and preserve repair pathways in certain cases. Supporting legislation that protects competition may moderate rising TCOR and improve insurance outcomes.

Inclusion of Quality Aftermarket Repair Options

The majority of participants indicated that they would have considered repairs using quality aftermarket parts or other cost-reducing options if presented during the claims process. Where appropriate and consistent with safety and quality standards, expanding access to these options may introduce additional flexibility into repair cost calculations.

Conclusion

Total loss determinations emerge from the interaction of repair economics, valuation practices, and vehicle financing structures within the modern collision repair ecosystem. Rising repair costs — driven by increasing vehicle complexity, higher parts prices, and expanded labor requirements — alongside moderating vehicle values have increased the likelihood that vehicles will cross the threshold at which repair becomes uneconomical. These are not isolated trends. They reflect structural shifts that, absent intervention, are likely to intensify.

The interviews in this study illustrate how these dynamics translate into household-level outcomes. For many households, the loss of a vehicle initiates a sequence of financial and logistical adjustments that extend well beyond the insurance settlement — debt expansion, asset depletion, mobility disruption, and changes in labor patterns that can persist for years. These are not edge cases. They are the predictable downstream consequences of a system operating under increasing pressure.

Taken together, these findings make clear that total loss is not only a technical insurance classification but a process shaped by interacting systems — and that how those systems are governed has real consequences for real households. The pressure points identified in this report, in valuation transparency, repair economics, and parts market competition, represent meaningful opportunities for intervention. Targeted changes in these areas would not disrupt the core function of the claims process. They would make it work better for the people it is meant to serve.

FIGURE 2.6

Steps Consumers Can Take Today!

Email your Congress Member

Use our [convenient form](#) to tell your congress member that your support the REPAIR Act and SMART Act.

REPAIR ACT

The “Right to Equitable and Professional Auto Industry Repair” (REPAIR) Act is bipartisan legislation that aims to protect consumer rights by ensuring fair and open access to vehicle repair and maintenance data.

SMART ACT

The proposed SMART Act (Saving Money on Affordable Repairs and Technology Act) would create a repair-related exemption under U.S. design patent law for collision repair parts used to restore a vehicle’s original appearance after a crash. Supporters argue the measure will preserve competition in replacement parts markets, improve access to affordable repair options, and help reduce upward pressure on repair costs and total loss determinations.

Share an Auto Repair Story

Have design patents increased the cost to have a vehicle repaired? Has an independent repair shop said they can’t fix a car because of automaker restrictions? Can’t access the car’s data? Let us hear about it. Click the ‘Share Your Story’ button on [this page](#) to share your story and don’t forget to share with friends, family, and acquaintances willing to tell their story. We will share them with legislators and help legislation move forward.

Support Industry Advocacy

Stay informed and contribute to advocacy partners like the Consumer Access to Repair (CAR) Coalition that take our cause straight to legislators.

References Cited

American Automobile Association. (2023). *Cost of advanced driver assistance systems (ADAS) repairs: 2023 update*.

Autobody News. (2024, November 4). *Strikes still threatening to rattle collision repair parts supply chain*. <https://www.autobodynews.com/news/strikes-still-threatening-to-rattle-collision-repair-parts-supply-chain>

CCC Intelligent Solutions. (2026). *Crash course 2026: Complexity compounds*.

Cox Automotive. (2026). *Used vehicle supply tightens as sales increase*. <https://www.coxautoinc.com/insights/used-vehicle-inventory-february-2026/>

Cox Automotive. (2025, October 14). *New record: Average new car prices surpass \$50,000. Kelley Blue Book*. <https://www.kbb.com/car-news/new-record-average-new-car-prices-surpasses-50000/>

S&P Global Mobility. (2025, May 21). *U.S. vehicle age rises again to 12.8 years in 2025, according to S&P Global Mobility*. <https://press.spglobal.com/2025-05-21-U-S-Vehicle-Age-Rises-Again-to-12-8-Years-in-2025,-According-to-S-P-Global-Mobility>

U.S. Bureau of Labor Statistics. (2026). *Consumer price index for all urban consumers: Motor vehicle maintenance and repair*.

Appendix A: Case Profiles

Supplemental Consumer Cases Illustrating Consumer Harm Pathways

These case profiles provide additional examples drawn from the interview sample. They illustrate how the pathways identified in the main report manifest across different financial positions, vehicle types, and recovery strategies. These cases are intended to supplement the primary findings and demonstrate the range of consumer experiences observed.

Case Profile Index

Debt Transition and Amplification (Cases 2, 3)

Wealth Depletion and Asset Liquidation (Cases 4, 6)

Mobility Instability and Transportation Disruption (Cases 8, 9)

Income and Labor Intensification (Cases 10, 12)

CASE PROFILE 2

DEBT TRANSITION AND AMPLIFICATION NEGATIVE EQUITY AMPLIFICATION

Matt H.

Arlington, Texas

Annual HHI: \$100,000-149,000

Matt's 2016 Ford F-150 was declared a total loss following a rear-end collision that caused frame damage and airbag deployment. At the time of the crash, the vehicle carried an outstanding loan balance of over \$40,000. His insurer issued a settlement of approximately \$30,000, leaving Matt with a shortfall of roughly \$10,000.

Without gap insurance, the remaining balance did not disappear when the vehicle was totaled. Instead, Matt was required to cover the difference in order to resolve the loan. To do so, he withdrew funds from his retirement account and entered a new financing arrangement for a new vehicle, which carried higher interest and less favorable terms.

"We're paycheck to paycheck barely. We had to make payment plans and my wife actually had to move one or two of her car payments to the end of the loan and we had to make payment arrangements on water and electric. We were late one time on rent."

Key Transition

Starting Position

Financed vehicle with ~\$40,000 outstanding loan

Total Loss Outcome

Insurance payout: ~\$30,000 | ~\$10,000 shortfall

Recovery Mechanism

Retirement withdrawal

New auto loan: \$677 monthly payment | 72 mo. | ~16% APR

Matt's experience illustrates how total loss determinations can convert an existing vehicle loan into a compounded financial obligation, requiring households to both absorb prior debt and take on new financing in order to restore mobility.

CASE PROFILE 3

DEBT TRANSITION AND AMPLIFICATION LOAN PAYOFF WITHOUT EQUITY RECOVERY

Danielle P.

Miami, Florida

Annual HHI: \$80,000-99,000

Danielle's 2021 Cadillac XT5 was declared a total loss after a multi-vehicle collision on a highway entrance ramp. The vehicle served as the primary transportation for Danielle and her grandmother, whom she regularly drove to medical appointments. At the time of the crash, the Cadillac still carried roughly \$38,000 in remaining loan balance.

Because Danielle carried gap insurance, the remaining loan balance was covered when the vehicle was declared a total loss. However, the household received no payout reflecting the money already paid into the vehicle. Without savings available for a new vehicle, Danielle and her family relied on ride-share services and borrowed money from relatives to assemble a small down payment. When they eventually purchased a replacement vehicle, the household faced dramatically worse financing terms.

"Imagine, I had about a less than 2% interest on the car that we lost. And on the new one... I was doing almost 16.9% interest... that was a very big hit."

Key Transition

Starting Position

Financed vehicle with ~\$38,000 remaining loan balance

Total Loss Outcome

Loan eliminated via gap insurance | No equity recovered

Recovery Mechanism

New auto loan: \$1,155 monthly payment | 72 mo. | ~17% APR

Danielle's case illustrates how total loss settlements can eliminate an existing loan while still destroying accumulated vehicle equity, forcing households to reenter the credit market under substantially worse financial terms.

CASE PROFILE 4

WEALTH DEPLETION AND ASSET LIQUIDATION

SAVINGS DEPLETION AND LOSS OF FINANCIAL BUFFER

Fatimah A.

Houston, Texas

Annual HHI: \$40,000-59,000

Fatimah's fully paid off 2014 Toyota Camry was declared a total loss following a multi-vehicle collision. Her insurer issued a settlement of approximately \$11,000, which she felt did not reflect the vehicle's condition or the market prices for comparable vehicles.

After an exhaustive search, Fatimah purchased a 2017 Toyota RAV4 for approximately \$27,000, requiring a down payment of about \$15,000. Because the insurance payout was insufficient to cover the cost of replacement, she drew directly from personal savings to bridge the gap. Much of these savings had been set aside for college expenses, eliminating a financial buffer that had been intended for future stability.

"I would say overall [I felt] kind of defeated because I had bigger ambitions and goals."

Key Transition

Starting Position

Paid-off vehicle + savings allocated for college and emergencies

Total Loss Outcome

Insurance payout: ~\$11,000

Replacement cost: ~\$27,000

Recovery Mechanism

\$15,000 savings drawdown for down payment

Fatimah's experience illustrates how total loss events can convert accumulated savings into immediate transportation financing, reducing financial buffers and redirecting resources away from long-term goals.

CASE PROFILE 6

WEALTH DEPLETION AND ASSET LIQUIDATION CROSS-ASSET SPILLOVER

Elizabeth S.

Glendale, Arizona

Annual HHI: \$40,000-59,000

Elizabeth received an insurance payout of approximately \$5,300 after her vehicle was declared a total loss.

The payout did not provide sufficient funds to secure a comparable replacement vehicle within her financial constraints. To restore transportation, she financed a replacement vehicle, taking on a monthly payment of approximately \$250.

At the same time, the loss occurred during a period of financial strain following medical issues that reduced her ability to work. To manage ongoing expenses, including the new auto loan, Elizabeth refinanced her home to lower her monthly housing payment, extending the duration of her mortgage and reducing accumulated home equity.

"I refinanced my house... so the [car] payments are lower... but you're starting over building up the equity."

Key Transition

Starting Position

Paid-off vehicle; accumulated home equity

Total Loss Outcome

Insurance payout: ~\$5,300

Recovery Mechanism

New auto loan (~\$250/month) + home refinancing to manage cash flow

Elizabeth's experience illustrates how total loss events can extend beyond vehicle financing, triggering adjustments in other domains of household wealth. In this case, restoring transportation contributed to the restructuring of housing-related assets, shifting financial pressure across multiple parts of the household balance sheet.

CASE PROFILE 8

MOBILITY INSTABILITY AND DISRUPTION

EXTENDED PERIODS WITHOUT RELIABLE TRANSPORTATION

Alexis P.

Long Beach, California

Annual HHI: \$80,000-99,000

Alexis's 2017 Ford Fusion was declared a total loss after a collision, leaving him without immediate access to a replacement vehicle. Although gap insurance covered his remaining loan balance, the payout of roughly \$6,000 to \$7,000 was not sufficient to secure a new vehicle right away. As a result, Alexis went approximately 6-7 months without reliable personal transportation.

During this period, he relied on ride-share services, limited public transportation, and occasionally borrowing a vehicle from family. These stopgap solutions introduced significant financial strain and logistical challenges. He reported difficulty commuting to work, reduced ability to take on job responsibilities that required travel, and disruptions to family obligations, including helping care for his younger brother.

"I was having to either take an Uber or wake up super early just to get to work... I knew I wasn't going to be able to get a car again immediately."

Key Transition

Starting Position

Independently owned vehicle used for daily commuting, caregiving, and household responsibilities

Total Loss Outcome

Loss of primary vehicle; extended period without car (only \$6,000-\$7,000 left after loan payoff)

Recovery Mechanism

Ride-share use, limited public transit, and reliance on family vehicles to maintain partial mobility

Alexis's experience illustrates how total loss determinations can result in prolonged loss of reliable transportation, with downstream effects on employment, household coordination, and financial stability.

CASE PROFILE 9

MOBILITY INSTABILITY AND DISRUPTION ALTERNATIVE TRANSPORTATION SUBSTITUTION

Austin C.

Los Angeles, California

Annual HHI: \$40,000-59,000

Austin's 2010 Toyota Corolla was declared a total loss following a collision. At the time of the loss, the vehicle was fully paid off, and he received an insurance payout of approximately \$4,000, which he felt was insufficient relative to his investment in the vehicle and current replacement costs.

Rather than immediately purchasing a replacement vehicle, Austin adopted an alternative transportation strategy. He began using a long-term rental model through a car-sharing platform, allowing him to access a vehicle on a monthly basis without taking on a loan or committing to ownership. This approach provided flexibility and reduced responsibility for maintenance, but represented a shift away from traditional vehicle ownership.

"For \$4,000 you really can't get anything... I've been using Turo and renting monthly... it's just as good as it gets for now."

Key Transition

Starting Position

Independently owned vehicle used for daily commuting and household responsibilities

Total Loss Outcome

Loss of paid off vehicle; \$4,000 insurance settlement

Recovery Mechanism

Avoiding car ownership; signed up for a new long-term rental car-share business

Austin's experience illustrates how households substitute traditional vehicle ownership with alternative transportation models, especially when replacement is not financially viable and their trust in the system is damaged.

CASE PROFILE 10

LABOR INTENSIFICATION AND INCOME LOSS

INCREASED WORK HOURS AND SECONDARY EMPLOYMENT

Linda P.

Newark, New Jersey

Annual HHI: \$80,000-99,000

May's 2025 Honda Civic was declared a total loss after a catastrophic mechanical failure caused her to lose control of the vehicle on the highway. At the time of the loss, she still owed approximately \$34,000 on the vehicle. After significant back and forth, the dealership agreed to settle her remaining balance.

Despite avoiding immediate debt, the total loss significantly increased her ongoing transportation cost burden. She transitioned into a leased vehicle with a monthly payment of approximately \$750. On top of that, her insurance premium rose \$200, increasing her overall transportation costs by approximately \$500 per month. To manage the increased financial burden, May sought additional shifts and requested overtime, describing the process as both physically and emotionally taxing.

"I have to work so much more... I am begging for more hours... begging for overtime. And I'm not proud of doing this, but they [dealership] made me go through this, you know what I mean?"

Key Transition

Starting Position

Financed vehicle; moderate savings; stable monthly expenses

Total Loss Outcome

Loss of primary vehicle; \$34,000 remaining on her vehicle loan that dealer paid off to avoid expensive litigation and provided a new vehicle for her to lease at \$750/month

Recovery Mechanism

Expansion of work hours, pursuit of overtime, and consideration of secondary employment to offset increased expenses

Linda P. is an example of how total losses can balloon households' transportation costs, forcing them to pursue aggressive work schedules.

CASE PROFILE 12

LABOR INTENSIFICATION AND INCOME LOSS EMPLOYMENT DISRUPTION AND JOB LOSS

Brianna D.

Flowery Branch, Georgia

Annual HHI: \$40,000-59,000

Brianna's 2006 Mitsubishi Eclipse was declared a total loss after she struck a pothole while driving on a highway bridge, causing the vehicle to lose control and sustain extensive front-end damage. At the time of the loss, she did not carry full coverage insurance and received no payout toward replacing the vehicle.

Without access to a car and living in an area without reliable public transportation, Brianna was unable to continue commuting to her warehouse job. As a result, she left her position and shifted to a lower-paying, part-time remote data entry role while relying on friends and family for transportation. The transition significantly altered both her income and daily routine.

"I couldn't work because I didn't have anybody that could drive me... I had to switch to doing work online."

Key Transition

Starting Position

Full-time, in-person employment requiring commute

Total Loss Outcome

Loss of vehicle with no insurance payout; inability to commute; job disruption

Recovery Mechanism

Transition to lower-paying, part-time remote work; reliance on informal transportation networks

Brianna's experience illustrates how total loss events can directly disrupt employment, especially when access to personal transportation is required to maintain work, resulting in significant pay-cuts and loss of upward momentum.

Appendix B: Research Design and Methodology

The Purpose of Our Research

The rising share of vehicles classified as total losses has become a growing topic of discussion within the collision repair ecosystem and has been widely noted in industry reports and trade media. While existing data document the increasing frequency of total loss determinations, less attention has been paid to how these outcomes affect vehicle owners in practice.

This study was designed to examine how total loss determinations shape the financial, logistical, and household consequences experienced by drivers following a collision. The research focuses on how consumers navigate the claims process, interpret settlement outcomes, and restore transportation after a vehicle is declared a total loss.

By documenting consumer experiences across multiple dimensions—including financial stability, mobility access, and replacement vehicle decisions—this study provides empirical insight into the downstream impacts that can follow a total loss determination.

Study Design

This research employed a qualitative, semi-structured interview design to examine consumer experiences following insurance total loss determinations. The goal of the study was not to estimate population-level prevalence, but to identify recurring mechanisms, decision dynamics, and household consequences associated with total loss outcomes.

Thirty consumers who had experienced a vehicle being declared a total loss following a collision participated in in-depth interviews. Qualitative interviews were selected because they allow researchers to capture complex financial decision-making processes, institutional interactions, and household adaptations that are often difficult to observe through survey data alone.

Recruitment and Sample Characteristics

Participants were recruited using the research recruitment platform User Interviews, which connects researchers with screened participants who meet defined eligibility criteria.

Eligibility requirements included that participants:

- had experienced a vehicle being declared a total loss within the past four years
- were the primary or joint financial decision-maker regarding the vehicle
- were willing to discuss the financial and procedural aspects of the insurance claim process

Participants were screened using a short eligibility questionnaire prior to scheduling interviews. Efforts were made to include participants across a range of household and financial contexts. Recruitment targeted variation across:

- income levels
- geographic regions (urban, suburban, and rural)
- loan status (paid-off vehicles, financed vehicles, and negative equity situations)
- pre-existing financial vulnerabilities

This approach was intended to capture variation in financial resilience and transportation dependence, allowing the research to examine whether total loss impacts differed across household contexts.

Data Collection

Each participant completed a semi-structured interview lasting approximately thirty minutes.

The interview guide combined structured prompts with open-ended discussion across several key topics, including:

- the collision experience
- the insurance claims process
- repair estimate transparency
- total loss communication and decision-making
- settlement valuation and negotiation
- replacement vehicle acquisition
- financing exposure and debt outcomes
- short-term and long-term financial effects
- mobility and employment impacts
- perceptions of the claims system

This semi-structured approach allowed participants to describe their experiences in detail while ensuring that core topics were addressed consistently across interviews.

All interviews were transcribed and reviewed for analytical coding.

Analytical Approach

The research team employed a thematic qualitative analysis approach to examine interview transcripts and identify recurring patterns across participant experiences.

Using Atlas.ti qualitative analysis software, transcripts were manually coded according to a structured coding framework that captured key dimensions of the total loss experience, including:

- repair transparency and procedural communication
- valuation understanding and settlement outcomes
- financing exposure and debt transitions
- savings depletion and asset liquidation
- labor and employment adjustments
- mobility disruptions and household coordination
- institutional trust and perceptions of fairness

Codes were then grouped into broader categories representing recurring consumer harm pathways, including:

- debt transition and amplification
- wealth depletion and asset liquidation
- replacement gap and asset degradation
- mobility instability and transportation disruption
- labor intensification
- erosion of institutional trust

These themes formed the empirical foundation for the Total Loss Cascade framework presented later in the report, which synthesizes how upstream repair and valuation dynamics translate into downstream household impacts.

The analytical objective was to identify recurring structural mechanisms, rather than isolated individual experiences.

Limitations

This research is qualitative and does not estimate the statistical frequency of total loss outcomes across the broader population.

Participants self-reported financial circumstances, claims experiences, and insurance outcomes. Insurance documentation and claims records were not independently verified.

However, the consistency of patterns observed across interviews—including among participants with different income levels, vehicle ownership statuses, and household structures—suggests the presence of recurring structural mechanisms that warrant further examination through additional research.

