



● INDUSTRY REPORT

Auto Repair Shops

NAICS: 811111

SIC: 7538

prepared December 7th, 2022

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Current Conditions

Recent Developments

Nov 10, 2022 -- EV Repair Risks

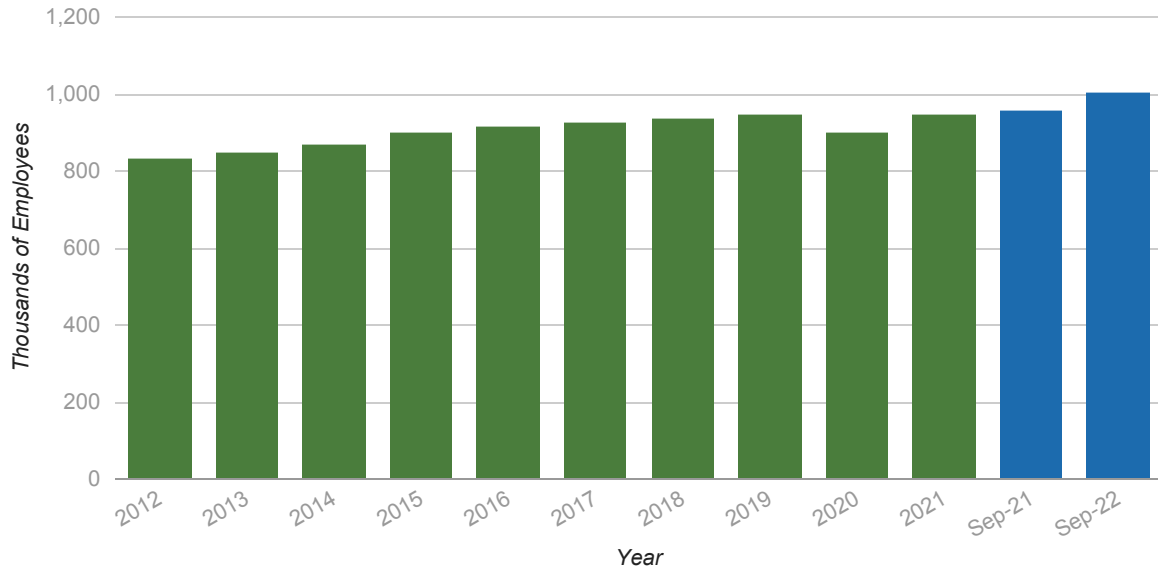
- As electric and hybrid vehicles go mainstream and constitute a larger part of a repair shop's business, the dangers – including fire and electrocution – posed to technicians by EV high voltage systems are increasing. Auto techs working on EVs are at risk if they don't follow safety procedures diligently and thoroughly, warns Dirk Fuchs, director of technical programs and services for the Inter-Industry Conference on Auto Collision Repair (I-CAR), who's been touring the country warning repairers of the dangers associated with EV repair. "Every procedure and every recommendation from I-CAR and the original equipment manufacturer (OEM) must be followed exactly every time to avoid either the loss of life and/or the loss of your entire shop and your customers' property from a thermal event," Fuchs cautions. However, with proper training repair shops can grow by picking up business from shops that turn it down.
- Automakers are developing new voice control capabilities for vehicles and adding voice commands that go deeper into the car's controls, including verbal cues for turning on windshield wipers, adjusting mirrors, or raising the tailgate, The Wall Street Journal reported in November. In an effort to keep drivers' eyes on the road – and not on dashboard screens – carmakers are expanding voice capabilities and using artificial intelligence to transform cars "into a travel companion of sorts," WSJ wrote. More drivers are embracing voice controls as the technology has improved. Some 40% of owners said they used their in-vehicle voice systems at least once a week, up from 30% in 2019, according to a US survey conducted last year by research firm Strategy Analytics, according to WSJ.
- Auto repair shops are poised to benefit from record high new car prices and soaring interest rates on car loans that are making repairs an economical alternative to replacing an aging vehicle. The average price of a new car topped \$48,000 in September 2022, according to data from Kelley Blue Book (KBB). That figure represents more than 80% of median income in 15 US states, reports YAA Car Search. Moreover, industry insights from KBB and TrueCar indicate that new car prices have yet to peak. Adding to buyers' pain, interest rates on auto loans have soared, with the average annual percentage rate on financed new vehicles in the third quarter at 5.7%, up from 4.3% at the same time last year, and up from last quarter's 5%, according to Edmunds.
- In a move designed to greatly accelerate the transition to electric vehicles, the California Air Resources Board in August 2022 approved regulations that banned the sale of new gasoline-powered cars by 2035. By then, all new passenger vehicles sold in the state would then have to run on electricity or hydrogen. While the rule doesn't force California's car shoppers to buy these vehicles, it creates fines for automakers who fail to comply with the targets. The penalties are stiff enough that experts believe automakers will comply with the new mandates. The Clean Air Act grants California – the nation's largest auto market – the ability to impose emissions standards on new vehicles that are stricter than those at the national level and which other states can then follow. Several other states have announced similar plans including Virginia, Washington, Oregon, Massachusetts, and New York.

Industry Indicators

Employment and Wage Trends

Employment by auto repair shops increases – Overall employment by auto repair shops changed 4.8% in September compared to a year ago, according to the latest data from the Bureau of Labor Statistics.

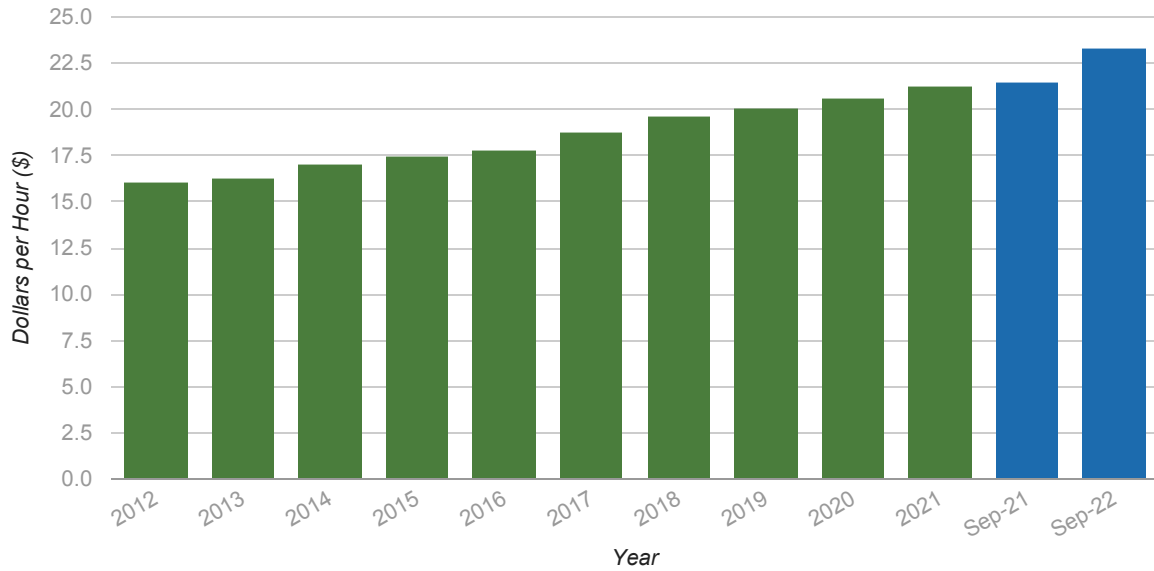
Auto Repair Shops Employment



Source: Bureau of Labor Statistics

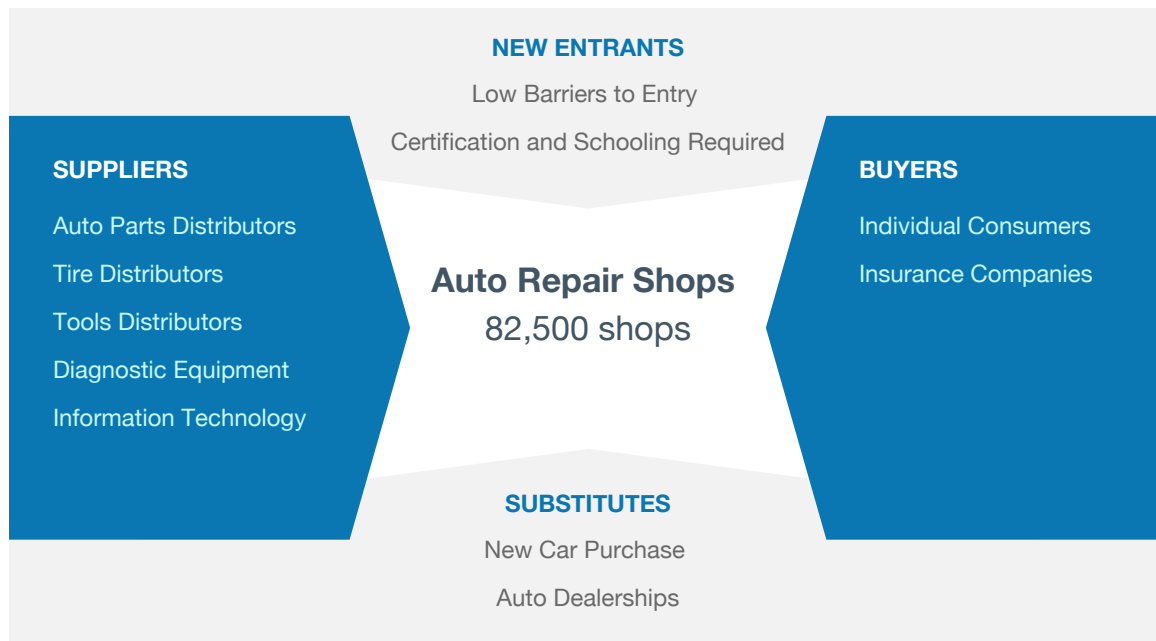
Wages at auto repair shops rise – Average wages for nonsupervisory employees at auto repair shops were \$23.30 per hour in September, a 8.9% change compared to a year ago.

Average Wages for Nonsupervisory Employees



Source: Bureau of Labor Statistics

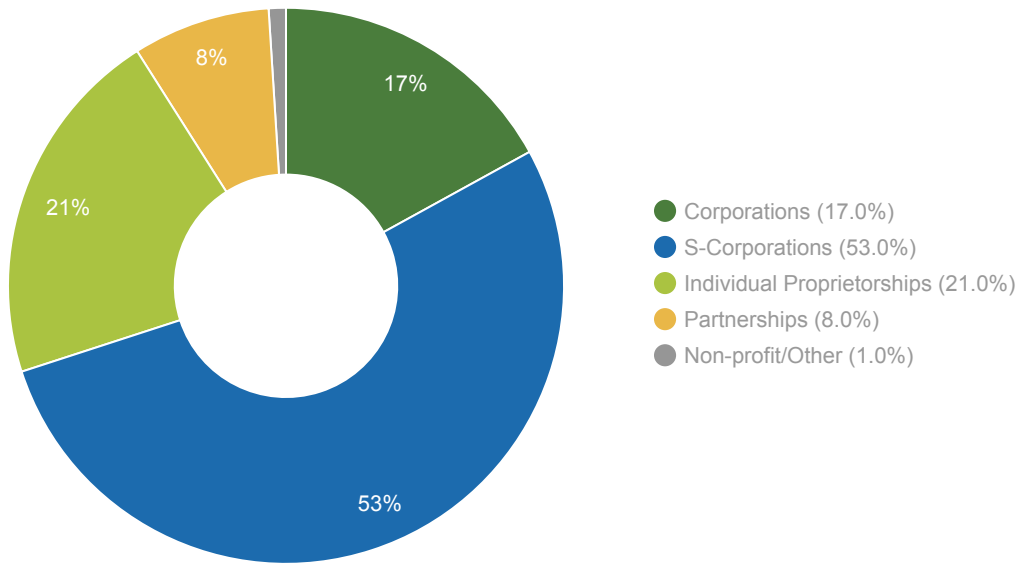
Industry Structure



The average auto repair shop has about 4-5 employees and generates \$709,000 in annual revenue.

- The automobile repair industry includes 78,600 firms that operate 82,500 shops, employ 345,600 workers and generate \$55 billion in annual sales.
- The auto repair industry is separate from dealerships that provide repair services as well as the aftermarket industry, which manufactures and supplies components for vehicle repair.
- The automobile repair industry is highly fragmented. A vast majority of independent service shops are family-owned.
- The average car is 12.1 years old. A shift toward older vehicles tends to benefit the auto repair industry, as it indicates customers are more likely to take them to a mechanic for service.
- Many independent mechanics are closed on the weekends, hindering competition with car dealerships that operate on Saturdays. Mechanics work an average of 40 hours a week.
- The largest auto repair companies in the US are Belron US, Meineke/Maaco, Midas, Monro, and Precision Tune Auto Care.

Industry Demographics



Source: US Census Bureau



Female Owned

6.0%



Minority Owned

14.0%



Veteran Owned

9.8%

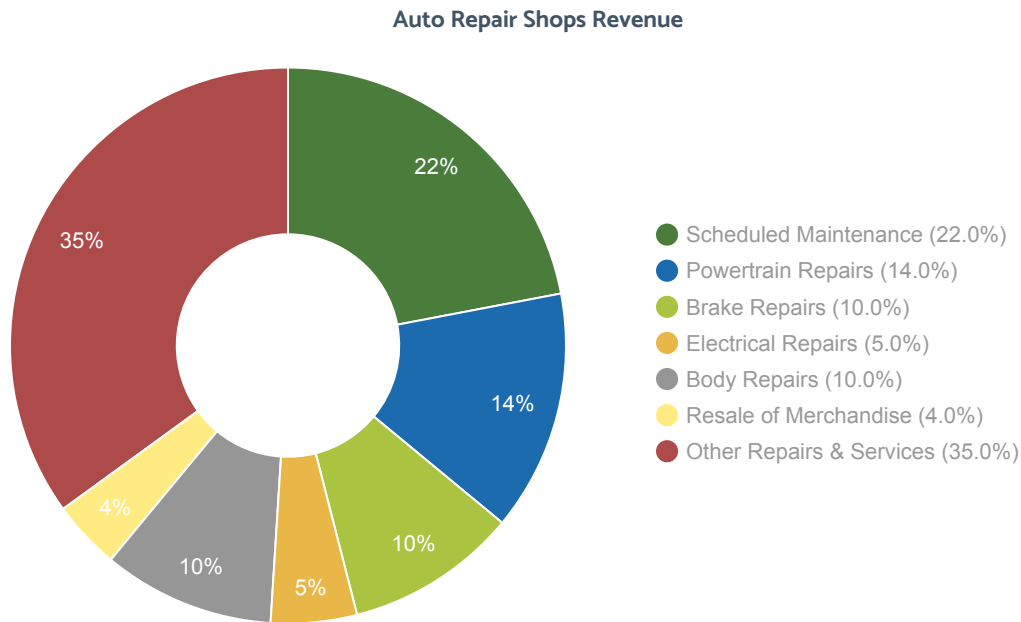
Source: Census Bureau

How Firms Operate

Products and Operations

Automobile repair shops fix cars with mechanical problems or restore a vehicle after a collision. Some repair shops work independently; others work only with an insurance company as part of a Direct Repair Program.

- Major collision repair accounts for around 10% of industry revenue.
- Preventative maintenance represents 22%.
- Oil changes average about 7%.



Source: US Census Bureau

Auto repair shops take in customer repairs or work primarily with an insurance provider's "Direct Repair Program" (DRP). DRP-affiliated shops receive direct referrals from an insurance company. Over half of all auto collision centers are involved in a DRP, according to the Automotive Service Association (ASA), but nearly half of those centers generate no sales from the agreements.

Within the collision sector, efficiency is measured in Cycle Time (CT): The time it takes to complete a repair. Most body shops have 4- to 5-day cycle time for drivable vehicles and a 10- to 13-day cycle time for non-drivable vehicles.

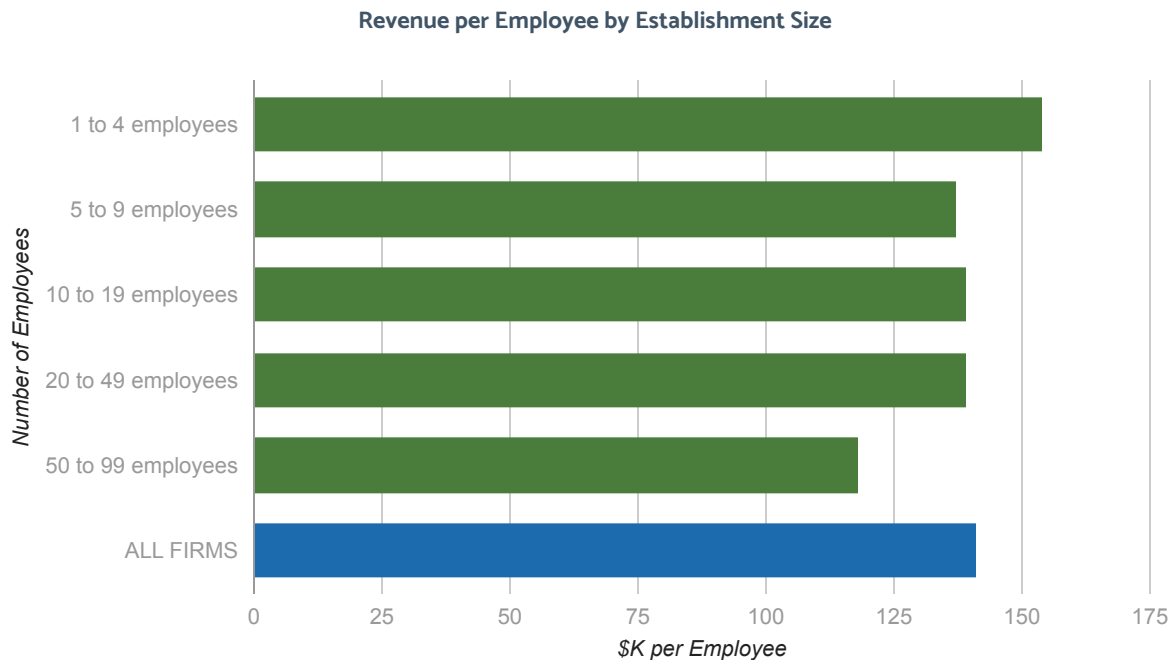
Some shops, particularly in rural areas or near interstate highways, may operate their own towing service to generate both towing and repair revenue. Most shops, however, develop relationships with independent towing services to secure referrals for repair work and bring vehicles to the shop.

The shop is typically led by an owner, who has experience working on the vehicles the shop specializes in repairing. Technicians work in assigned bays and report to the owner or to a lead mechanic. The shop obtains common parts and supplies from an auto parts store that delivers several times a day. Custom or rare components are special-ordered and shipped directly to the shop. The ability to source parts for a wide variety of vehicles in a timely manner is key to efficient

repairs and customer satisfaction.

Repair shops generate waste materials, used fluids and parts, which must be properly disposed of or recycled. Regulations forbid the disposal of used oil and radiator coolant into sewer systems, so shops must collect and store them for pick-up by a disposal service.

Mechanics do not need a college education, but a working knowledge of computers is increasingly important. Technicians must keep current on certifications required by the state and within the industry.



Source: US Census Bureau

Profit Drivers

Higher Car Counts

Shops need sufficient “car count” to avoid empty service bays and idle technicians during normal operating hours. Marketing programs can be used to bring in new customers and encourage repeat customers. When demand exceeds capacity, shops can increase their car count by reducing average repair times and changeover times. Repair times can be lowered by having multiple technicians work on the same car and by improving technician productivity through tools and training.

Increased Average Repair Order

A key driver of profitability for auto repair shops is the size of their average repair order (RO). Given fixed times for set up, test drives, and documenting repairs, the more work that can be done per car results in higher productivity and gross margins. Higher average repair orders also reflect the shop’s ability to perform more complex repairs, instead of just doing oil changes and routine maintenance. Finally, a higher RO is an indicator that the shop is not heavily discounting work and is achieving sufficient margins on parts and labor.

Outstanding Customer Service

Successful shops avoid competing solely on price and develop a strong repeat customer business by delivering

outstanding customer service. This includes everything from the initial interaction of the service advisor with the customer to free shuttle service to home or work. Accurate estimates of repair costs and time and honest assessments of what repairs are needed build customer trust and loyalty. Performing repairs correctly and offering extended warranties on all repair work also builds repeat business. Building a reputation for quality work and customer service is also dependent on hiring and retaining highly qualified technicians.

Industry Trends

Consumers Taking Control

Consumers are skeptical of dubious repairs and overcharging, and have taken back some of the control of the repair process. Websites like RepairPal.com provide estimates of basic services like coolant flushes and brake pad replacement, connecting customers with local mechanics who provide these services at listed prices. Online reviews help steer customers away from dishonest businesses. Some customers are taking on repairs themselves, purchasing devices like the Kiwi Wifi, an iPhone accessory that can interpret OBD-II codes and check engine diagnostics and fuel efficiency.

Shops Leverage Social Media

Just as customers are using the Internet for shopping, independent and chain repair shops are leveraging applications like Facebook and Twitter to promote their business. Forward-thinking business have partnered with sites like Groupon and Living Social, which distribute daily discounts to consumers within a local market. Since customers are unlikely to find and “friend” their local transmission repair shop, businesses often list their social media information on in-store fliers or on their website.

Mechanics Win Right To Repair

States like Massachusetts and Florida have taken on so-called “right to repair” legislation and won a victory for third-party repair shops, nationwide. In an effort to prevent state-by-state legislation, the auto industry agreed to a national standard and deadline. Automobile manufacturers had to make diagnostic codes available to all independent repair shops and parts retailers before the 2018 model year vehicles were available. Before the agreement, only car dealerships had access to these sophisticated codes and the ability to repair vehicle problems. Repair shops – along with aftermarket suppliers – argued that independent mechanics should have the same access to information, which would lower the cost of car repair. As a result, independent shops are expected to gain market share of repairs from automobile dealerships’ service departments.

Shops Servicing Alternative Fuel Vehicles

The increase in hybrid cars and the emergence of alternative fuel vehicles presents both a challenge and an opportunity. Computerized cars are highly automated, and customers are much more likely to have them repaired at the dealership. However, local mechanics that specialize in hybrid repairs may prove to be a worthy competitor to the local dealership. Additionally, some mechanics are specializing in eco-friendly car repair. These “green repair” businesses ensure the proper use and disposal of hazardous materials, adhere to environmental standards, and are often certified by green business associations.

Increased Buying Power Of Women

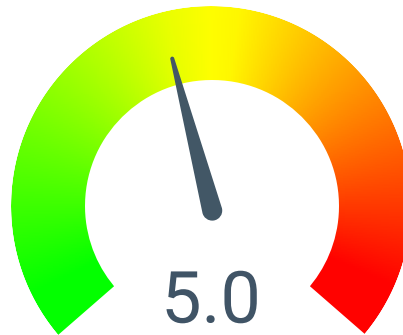
According to an Automotive Aftermarket Industry Association (AAIA) report, two-thirds of customers bringing in vehicles for service are women, and 90% of female drivers are involved in the vehicle repair decision-making process. Franchises and independent operators are responding to the shopping preferences and habits of women, offering child-friendly waiting rooms and hiring women service operators. However, repair shops have a long way to go. A recent Car Care Council survey found that nine out of ten women believe repair shop operators and technicians treat them differently because they are women – and that difference is seldom positive.

Collision Repair Industry Consolidation

The collision repair industry is mature and suffering from declines in the number of vehicles needing repair services. Consolidation is resulting from overcapacity, weak claims, pressure from insurance clients and their Direct Repair Programs, tightened profits, and the increased complexity of vehicles. Many collision shops are either acquiring competitors to build market share and reduce local competition, or joining networks to gain the advantages of pooled resources.

Industry Indicators have moved to [Current Conditions](#)

Credit Underwriting and Risks



Industry Risk Rating:
Stable/Satisfactory

Business Exit Rates:	4.5	Comparable to US average for all businesses
Cyclical Sensitivity:	5.5	Moderate sensitivity
Barriers to Entry:	4.1	Moderate initial capital; moderate regulatory/technical barriers; very low concentration
External Risk:	5.0	Moderate external risk
Industry Outlook:	5.5	Comparable to GDP; some cyclical risk
Financial Summary:	5.4	Average margins; moderate liquidity; high leverage

Key Metrics

METRIC	VALUE	COMPARISON
Performance During 2007–2009 Recession	-7.5%	0.0% GDP
Business Exit Rate 2019–2020	8%	9.0% All Industries
Compound Annual Growth Forecast (2021–2026)	5.31%	5.50% GDP
SBA 7(a) Default Rate by Number of Loans (2010-2022)	4.09%	4.26% All Industries
SBA 7(a) Default Rate by Gross Loan Amount (2010-2022)	1.21%	1.36% All Industries

Underwriting Considerations

- Does the company participate in a Direct Repair Program (DRP), receiving repair jobs from an insurer.
- How much is the annual investment in equipment and training of employees in evolving vehicle technology?
- In a highly competitive industry, how has the company maintained and grown market share?

Industry Risks

Competition from Dealers

Faced with declining new car sales, car dealerships are increasing their efforts to service and repair vehicles of all types.

Some dealers, having lost their manufacturer's franchise, are now offering "umbrella" services: collision, lube and oil change, interior repair and reconditioning, exterior paint and detailing, as well as traditional new and used car sales, insurance, and car financing. Repair shops must also contend with the customer perception that car dealers are more knowledgeable about their car's specific make and model.

High Reliance on Technology

Modern automobiles are "computers on wheels," and the era of the shade-tree mechanic has long passed. An automobile can have over a dozen unique on-board computers. Since the passing of the Clean Air Act in 1996, cars must be equipped with an on-board diagnostic (OBD-II) system. While most mechanics can patch into the OBD-II and read diagnostic codes when a vehicle is brought in for service, vehicle manufacturers and their dealers can remotely access the computers of connected cars and determine when repairs will be needed. This allows dealers to notify owners and schedule service appointments, leaving independent auto repair shops at a severe disadvantage.

Declining Collision Sector

Once a highly-profitable segment, the collision and body repair sector is in what some industry experts have termed "irrevocable decline." New safety measures like backup sensors and rear-view cameras have reduced traffic accidents. The number of "total losses" – accidents which cannot be repaired – has increased. Customers have shifted to lower-dollar repair orders, or cash insurance settlement checks and pocket the money instead of repairing their vehicle.

Vulnerability to Government Programs

Automobile repair shops are susceptible to federal initiatives like "Cash for Clunkers" and low-interest incentive programs for purchasing new vehicles. These efforts to jump-start the nation's economy may generate new car sales, but often come at the expense of repair shops.

Negative Industry Image

Car mechanics consistently deal with the perception that they overcharge and unnecessarily up-sell. Media reports often sensationalize price disparities among repair shops for service required on the same vehicle. Local mechanics fair better in the trust category than dealerships or retail chains: a DriverSide.com study found that two-thirds of all customers believe that a car dealership is the service provider most likely to overcharge for vehicle repair work.

Company Risks

Reliance on Specific Car Manufacturers

Repair shops typically develop expertise in a specific make of car. Company profitability can be dependent on the success or failure of the manufacturers of the cars the shop specializes in. With the recent downturn in the automobile industry, many dealerships specializing in European cars, high-end vehicles, and certain domestic models have been forced to alter their business, merge with competitors, or close down entirely.

Sensitivity to Customer Reviews

Customers tend not to trust auto repair shops, and with the advent of online review sites, shop owners must carefully monitor what customers are saying about their services and prices. Negative word-of-mouth can have a major effect on an auto repair shop's bottom line.

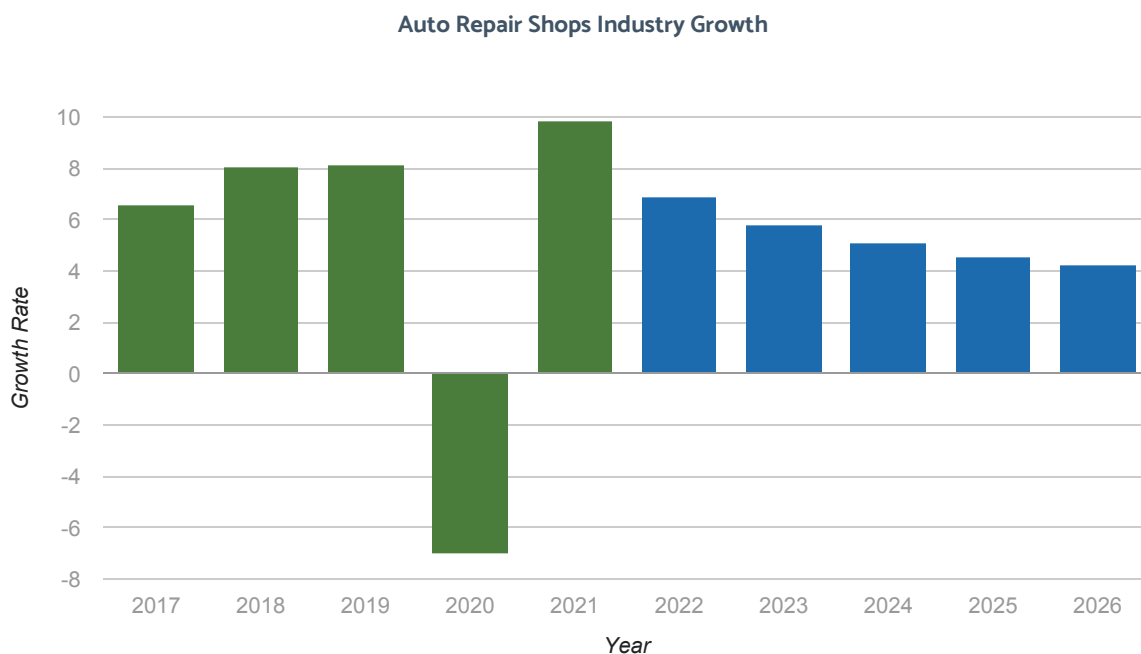
Low Repeat Business

Repair shops rely on repeat business from customers to build a steady service volume. An ongoing relationship with customers leads to more predictable business and reduces collection issues. Building repeat business requires shops to maintain accurate records of customer vehicles and repair histories, along with ensuring customers are satisfied with repairs and charges. Shops that fail to invest in information systems for tracking customer records are less likely to maintain a high level of repeat business.

Industry Forecast

Sales for the US auto repair shops industry are forecast to grow at a 5.31% compounded annual rate from 2021 to 2026, comparable to the growth of the overall economy.

Last Update: August 2022



Source: Interindustry Economic Research Fund, Inc.

Vertical IQ forecasts are based on the Inforum inter-industry economic model of the US economy. Inforum forecasts were prepared by the Interindustry Economic Research Fund, Inc.

Other Services Sector Forecast

The sector forecast discusses the outlook, trends, and data that contains this industry.

Forecast Outlook

Inflation-adjusted (2012\$) GDP dropped 3.4% in 2020 before gaining 5.7% in 2021. GDP growth will diminish to about 2.3% in 2022 and just 1.6% in 2023. In the longer run, real GDP will expand in keeping with labor force and labor productivity growth; following improvement from the sluggish 2023 pace, growth will sustain about 2.0% annual expansion.

GDP and consumption price (PCE) inflation subsided to 1.2% in 2020. Prices accelerated in 2021, with levels rising rapidly at the end of the year; GDP inflation averaged 4.2% in 2021 and PCE inflation averaged 3.9%. Inflation continued to rise through the first half of 2022. Prices were boosted by aggressive fiscal and monetary policies in 2020 and 2021, with additional pressure caused by supply chain disruptions and war in Ukraine. If inflation eases in the second half of 2022, then GDP inflation may average 6.4% and PCE inflation about 6.1%. Inflation likely will diminish in coming years to satisfy the Federal Reserve target of 2.0%, though the pace of decline is uncertain. Many hope that higher global output and better freight transportation will ease shortages and reduce prices for goods in short supply. These are important factors, but much also depends on whether tighter monetary policy can control overall inflation without spurring recession.

Improving consumer confidence in the forecast period bodes well for the other services industries. Personal income increased in both 2020 and 2021, but real consumer spending dropped 3.8% in 2020 before recovering about 7.9% in 2021. While real income is expected to decline in 2022, spending will rise again but decelerate to about 2.4%. Household debt levels were relatively low at the beginning of 2020, and despite the collapse of employment, high transfer income, generally low prices, and limited opportunities to spend meant that household savings soared in 2020. If the pandemic and inflation can be controlled effectively in late-2022 and 2023 so that employment continues to rise, then households could continue to drive strong recovery in consumer services industries while maintaining spending on auto sales (though sales presently are constrained by production limitations), other goods, and residential investment. However, consumer sentiment currently stands at unusually low levels, and high inflation limits the growth of real expenditure even as nominal spending rises. Recovering real disposable income following decline in 2022, together with subsiding inflation and improving supplies of labor and materials, will support stronger growth in years ahead.

Whether broader recovery of service sectors will follow in years ahead remains uncertain. As COVID infection rates continue to subside, personal consumption spending for dry cleaning and laundry services should rise as people return to work and seek a wider array of entertainment and recreational activities. Many nonprofit organizations similarly will see greater activity, particularly those that serve the public by providing live art and entertainment services. Professional organizations will benefit from rising employment levels, with more individuals paying membership dues and attending in-person conferences.

While the United States seems past the peak of the Omicron wave, vigilance remains important. If a new variant or another public health emergency emerges and infection rates rise, leaders here and in other countries might impose new restrictions on individuals and businesses. Yet another significant reduction in business activity would lead to more job losses and economic hardship, particularly for those in hard-hit sectors. Prolonged unemployment causes lasting difficulties for those seeking to return to work, as seen after the Great Recession. This could slow the pace of recovery and lead to further struggle for many households. .

Recent Trends

Ten consecutive years of growth ended abruptly in 2020, as coronavirus spread worldwide. The pandemic took hold in the US in March, with a sharp economic slowdown hitting many industries in most states. Even with a severe contraction and subsequent periods of slowing over the next year and more, the economy proved resilient. Payroll employment fell 22.0 million between February 2020 and April 2020; by June 2022, losses diminished to 0.3 million jobs. The US economy contracted 3.4% in 2020 but expanded 5.7% in 2021; the net effect was a level of real GDP in Q4 2021 about 3.6% higher than in Q4 2019. By mid-year 2022, however, the economy slowed, with falling GDP over the past two quarters, high and rising inflation, and inverted yield curves. The economic data are noisy and signals are mixed; imminent recession is not certain, but the period of rapid recovery seems to have ended.

The Other Services sector includes a broad array of industries, including automotive repair, dry-cleaning, beauty salons, death care, and religious organizations, among others. Many of these serve households, though some also serve businesses. The sector includes a significant number of nonprofit organizations.

Consumer sentiment seemed high in spring 2021 as vaccinations dramatically curtailed the spread of COVID, but confidence declined sharply late in the year as infections began to surge and inflation crept higher. Federal aid bills passed in 2020 and March 2021 boosted income and supported strong consumer spending and residential investment. Inflation-adjusted Personal Consumption Expenditure (PCE) fell 3.8% overall in 2020, followed by a 7.9% gain in 2021. Real spending decelerated in the first half of 2022, rising 1.8% in Q1 (Seasonally-Adjusted Annual Rate) and 1.5% SAAR in Q2. Disruptions to household and business spending patterns had profound consequences for many service industries, and some were hit particularly hard by restrictions on activity. Consumer spending on laundry and dry-cleaning services, for example, fell about 25% between Q4 2019 and Q2 2020, and it remained down more than 12% in Q2 2022.

Reduced personal and business activity during the pandemic brought dramatic reduction in travel. Auto sales suffered severe decline in March and April 2020. As restrictions were relaxed, sales reached an annual rate of 18.3 million units in April 2021. Shortages of computer chips then weighed on production, and subsequent shortages of new vehicles reduced sales to 12.9 million SAAR in November 2021 and 13.0 SAAR in June 2022. Auto inventories dropped dramatically, and auto rental companies and others face serious difficulties with auto supply shortages. Rental rates and automobile prices soared. Similar shortages affect the broader market for transportation and other equipment, as well as for consumer goods. These constraints force many to maintain and repair vehicles that otherwise might have been replaced.

Activity at many nonprofit institutions that serve households dipped as the pandemic took hold, but overall real activity levels largely recovered by Q2 2022. These nonprofit institutions include health care, arts, recreation, education, social, religious, civic, grantmaking, and professional organizations. Receipts earned from sales of goods and services dropped by greater amounts, but these too largely recovered in 2021, though inflation-adjusted receipts dropped again in the first half of 2022. Within the sector, performance was mixed, with some suffering greater decline and recovering more slowly.

Macroeconomic Indicators

	History					Forecast				
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
<i>Nominal, Annual Growth Rates</i>										
GDP	4.2	5.4	4.1	-2.2	10.1	8.8	5.1	4.6	4.4	4.3
Personal Consumption	4.3	5.1	3.7	-2.6	12.1	8.6	5.1	4.5	4.3	4.3
Nonresidential Fixed Investment	5.0	7.3	5.7	-4.7	9.1	10.9	6.0	5.1	5.0	4.9
Structures	6.9	5.7	6.2	-11.2	-2.8	6.8	7.2	7.7	7.9	7.2
Equipment	2.7	6.5	3.4	-8.7	13.4	12.1	6.0	4.6	4.5	4.5
Intellectual Property	6.5	9.3	8.2	4.2	11.1	11.5	5.4	4.5	4.2	4.1
Residential Investment	8.7	5.0	1.9	10.3	21.0	0.3	6.0	5.7	4.3	3.6
Exports	6.8	6.3	-0.5	-15.7	16.7	15.7	4.5	4.4	6.4	5.7
Imports	6.8	7.0	-0.4	-11.0	22.4	18.3	4.1	4.1	4.6	4.7
Government Consumption & Investment	2.9	5.1	4.0	3.9	5.0	4.6	5.1	4.3	3.9	3.7
<i>Quantities, Annual Growth Rates</i>										
GDP	2.3	2.9	2.3	-3.4	5.7	2.3	1.6	2.4	2.3	2.3
Personal Consumption	2.4	2.9	2.2	-3.8	7.9	2.4	1.6	2.1	2.1	2.1
Nonresidential Fixed Investment	4.1	6.4	4.3	-5.3	7.4	5.3	2.2	3.5	3.6	3.5
Structures	4.2	4.0	2.0	-12.5	-8.0	-0.8	2.1	5.5	5.9	5.2
Equipment	2.8	6.4	3.3	-8.3	13.1	6.0	2.3	3.1	3.2	3.2
Intellectual Property	5.7	8.1	7.2	2.8	10.0	7.8	2.3	3.0	3.0	2.9

	History					Forecast				
	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Residential Investment	4.0	-0.6	-0.9	6.8	9.2	-0.8	1.2	3.8	2.7	2.0
Exports	4.1	2.8	-0.1	-13.6	4.5	4.8	2.7	3.9	4.1	4.4
Imports	4.4	4.1	1.2	-8.9	14.0	9.1	0.6	1.9	2.5	2.6
Government Consumption & Investment	0.5	1.4	2.2	2.5	0.5	-0.8	1.1	1.3	1.1	0.9
<i>Prices, Annual Growth Rates</i>										
GDP	1.9	2.4	1.8	1.2	4.2	6.4	3.4	2.2	2.1	2.0
Personal Consumption	1.8	2.1	1.5	1.2	3.9	6.1	3.4	2.3	2.2	2.1
<i>Labor and Income</i>										
Real Disposable Income Growth	2.8	3.4	2.3	6.2	2.2	-4.9	2.3	3.7	3.0	2.2
Employment Growth	1.2	1.7	1.2	-5.4	2.5	4.0	1.2	0.6	0.4	0.3
Unemployment Growth	4.4	3.9	3.7	8.1	5.4	3.6	4.0	3.8	3.9	3.9
<i>Interest Rates</i>										
Treasury Bills, 3-Month	0.9	1.9	2.1	0.4	0.0	1.7	3.3	3.1	3.1	3.1
Treasury Bonds, 10-Year	2.3	2.9	2.1	0.9	1.4	2.8	3.4	3.5	3.6	3.7

Sector Components

- Repair and Maintenance
- Personal and Laundry Services
- Religious, Grantmaking, Civic, Professional, and Similar Organizations
- Private Households

Forecast Drivers

- Disposable income
- Consumer spending
- Aggregate employment

The Inforum LIFT Model

LIFT (Long-term Interindustry Forecasting Tool) is an interindustry-macro (IM) model of the U.S. economy. The model incorporates annual economic and demographic data from government statistical agencies, and relationships among the data are employed to simulate and to project economic developments. It is useful for forecasting and for addressing questions that involve interactions between industries and the interplay between industry and the macro economy.

The LIFT model provides historical data and forecasts for:

- **Sectoral detail** (121 commodities, 71 industries, 83 consumption categories) - Output, employment, value added, personal consumption, residential and nonresidential investment, government expenditures, exports, imports, and more.
- **Macroeconomic variables** - GDP, net exports, inflation, population, unemployment rate, household income, and more.

LIFT employs a "bottom-up" approach to macroeconomic modeling. This structure supports analysis of how changes in one industry, such as increased productivity or changing international trade patterns, affect related sectors and the aggregate quantities. In this way, the model works like the actual economy, building the macroeconomic totals from details of industry activity.

The model is well-suited to the exploration of policy questions or analysis where both industry and macroeconomic behavior are important. The model has been used to identify impacts of tax policies, tariffs and free trade agreements, carbon taxes or cap and trade programs, infrastructure improvements, electrification of the vehicle fleet, port closures and other disruptions, immigration, defense spending cuts, health care finance, deficit reduction, and many other scenarios.

Working Capital

Sell and invoice

Auto repair shops take in customer repairs or work primarily with an insurance provider's "Direct Repair Program" (DRP). DRP-affiliated shops receive direct referrals from an insurance company. Auto repair shops typically use a database of flat rate fees to estimate the cost of vehicle servicing and repairs. They charge an hourly rate to cover costs and turn a profit. The average hourly rate for auto repairs ranges \$75-130 with independent shops charging on the lower end and dealerships on the higher end. Primary factors in determining an hourly rate include repair shop location (urban vs rural), type of shop (independent vs dealership), the make and model of the vehicle, the shop's authorized-repairer status, and technician expertise (special certification), according to Auto Chimps. The number of service bays and technicians indicates capacity. The number of repairs per month drives capacity utilization and revenue.

56% of auto repair shops said they go to their accountant or bookkeeper for cash flow advice, while 0% turn to their banker and 40% do not seek advice, according to a survey of small businesses by Barlow Research Associates.

Source: Barlow Research Associates.

Collect

Automobile repair shops receive payments in cash, credit/debit cards, and local checks. For more expensive repairs paid by check, the repair shop may first require bank pre-approval. Shops typically assess customers a \$25 to \$50 fee for bounced checks. Some repair facilities, particularly larger chains, partner with banks or finance corporations to extend credit terms to customers. Customers can also turn to independent agencies that specialize in financing car repairs, though these companies rarely offer competitive interest rates or terms.

Manage Cash

Repair shops can thrive in a down economy, as car owners are more likely to maintain a vehicle rather than purchase a new one. However, in severe economic downturns, drivers often put off major car repairs, driving down a shop's average repair bill. Cash flow can also be affected by customers who delay in picking up vehicles when repairs are complete and shops may add a surcharge for late pick-up.

Pay

Gross margins average around 55%. Labor costs average 18-20% of sales. Earnings vary considerably: the average technician makes around \$43,700 a year, while shop owners earn about \$165,000. The industry typically pays on a "flat" or "flag" rate; that is, mechanics are paid according to the industry average for a specific task. For example, the flag rate for an oil change is around 12 minutes. Efficient mechanics can increase earnings by completing work faster than the flag rate. However, this can lead to rushed jobs and unhappy customers.

Report

After-tax net profit averages 6-7% of sales. Key metrics tracked include average repair bill, repairs per month, repairs per mechanic, and billable time per mechanic. Collision repair shops also measure cycle time - the elapsed time to complete a

repair.

Cash Management Challenges

Maintaining Sufficient Repair Volume

Auto repair shops must maintain a sufficient volume of repairs or “car count” to achieve steady cash flow. Idle service bays and technicians represent lost revenue opportunity and can result in monthly cash shortfalls due to fixed overhead expenses. Generating repeat business through satisfied customers is the most effective way to build repair volume.

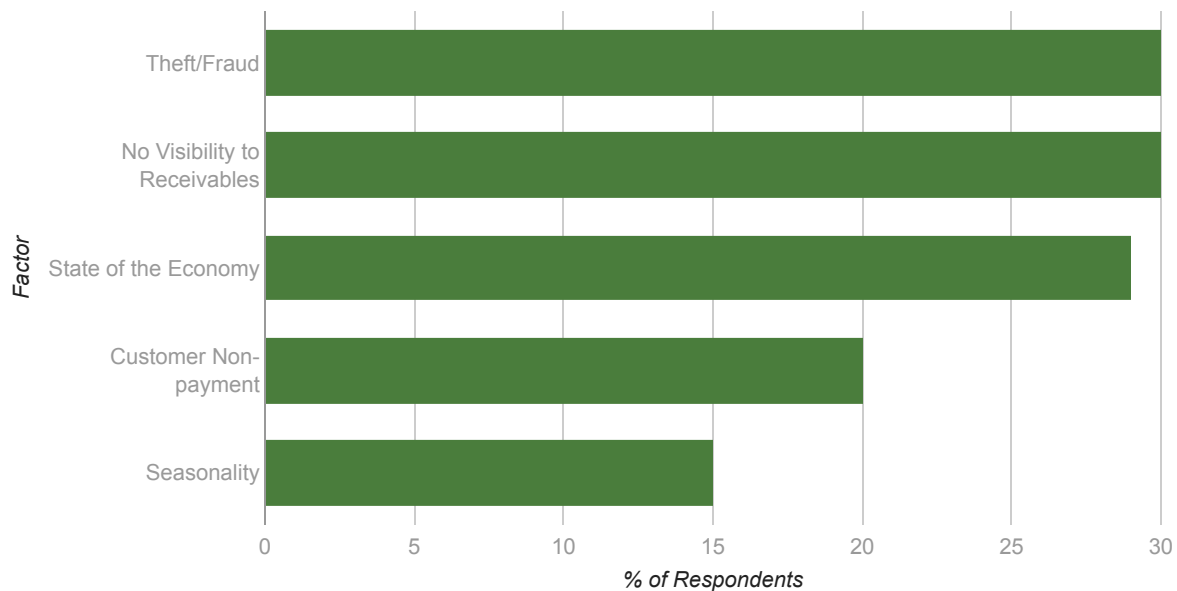
Keeping Up with Automotive Technology

Repair of new car models is becoming more complex due to the increased use of onboard computers and electronics to improve fuel efficiency, performance, and emissions. Shops must regularly invest in new diagnostic equipment and technician training to keep up with technology advances. Funding these investments can be a challenge for independent shops, but is necessary to compete with dealerships for repair and maintenance work.

Labor Margins and Turnover

Labor is the largest component of most repairs and strongly impacts gross margins. Factors include billing rates for technicians, wages paid, and technician productivity compared to standard repair times. Paying lower wages for less qualified technicians is not usually a viable strategy, unless the shop has decided to focus on routine maintenance and other “commodity” services. Low wages often lead to higher employee turnover and customer satisfaction issues.

Factors Causing Cash Flow Stress: Auto Repair Shops



Source: Barlow Research Associates

Capital Financing

A typical auto repair shop operates fewer than 10 bays, while a collision repair center manages fewer than 20. This includes paint booths, metal bays, prep stations – any operational bay in which a worker generates revenue. In general, the fewer the bays, the lower the startup cost. Small, two- or three-bay shops can cost less than \$50,000 to launch, while larger repair shops can reach upwards of \$500,000.

Franchising is another route: Typical startup fees for an oil change or auto repair franchise are around \$50,000. The total franchise capital investment is around \$200,000 to \$400,000, and franchise royalties average around 4%. Most franchisors require an owner/operator to have a minimum net worth of around \$500,000.

Examples of Equipment Purchases



Wheel Alignment Machine

\$11,000 - 15,000

Computerized system for measuring and aligning wheels on vehicles.



Auto Lift

\$4,000 - 10,000

Service lift to allow access to underside of vehicle. Lifts can be two post or four post and designed to handle different maximum weights.



Refrigerant Management System

\$4,000 - 6,000

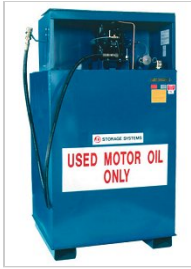
Automates recovery, recycling, evacuation, and recharging of air conditioning systems in compliance with environmental regulations and factory specifications.



Rotary Screw Air Compressor

\$5,000 - 6,000

Provides compressed air for operating power tools, inflating tires, etc. Rotary screw design provides quieter operation.



Used Oil Storage System

\$4,000 - 6,000

Double-walled tank with capacity from 180 to 500 gallons for storage of used oil.



Infrared Curing Lamps

\$300 - 30,000

Lamps cure paint and other coatings on vehicles. Equipment ranges in size from handheld and mobile racked units to tunnels that cure an entire vehicle.

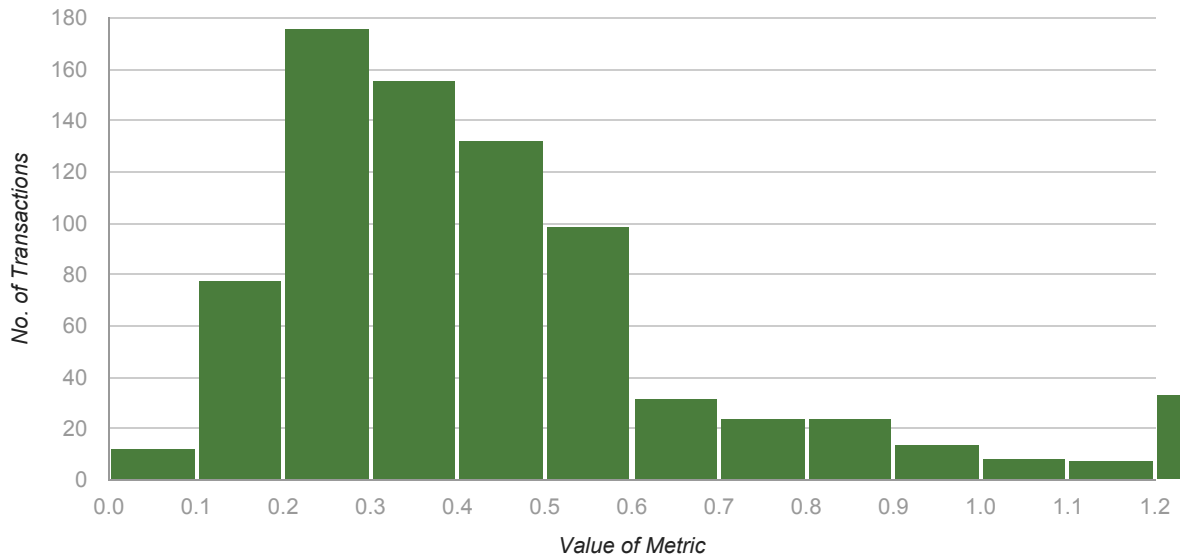
Business Valuation

This data on business valuations is supplied by DealStats, an online database with the most complete financial details on over 42,500 acquired companies. These companies are mostly small and medium-sized private firms.

Summary Valuation Data for Auto Repair Shops

	MEDIAN	MEAN	# TRANSACTIONS	DATES
Price to Net Sales	0.38	0.53	787	02/29/1992–12/15/2021
Price to Gross Profits	0.63	0.95	702	02/29/1992–12/15/2021
Price to EBITDA	3.64	15.66	464	02/29/1992–12/15/2021
Price to EBIT	3.8	12.92	646	02/29/1992 –12/15/2021

Click on the metric below to see a distribution of transactions for the industry:



Source: DealStats

Count: 787

Min: 0.03

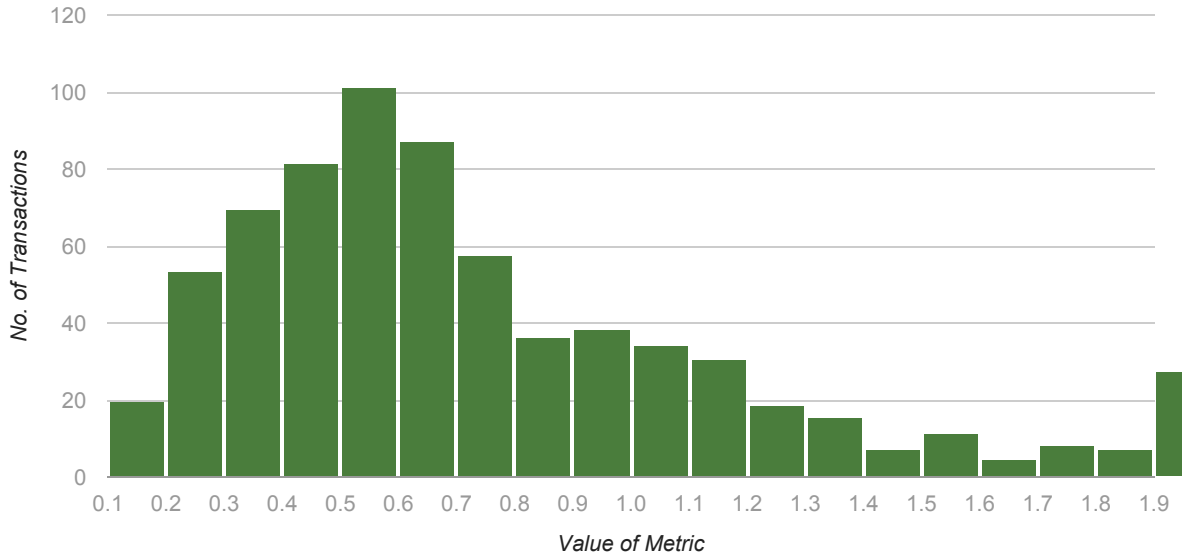
Max: 52.66

Mean: 0.53

Median: 0.38

Price to Sales = Selling Price/Net Sales

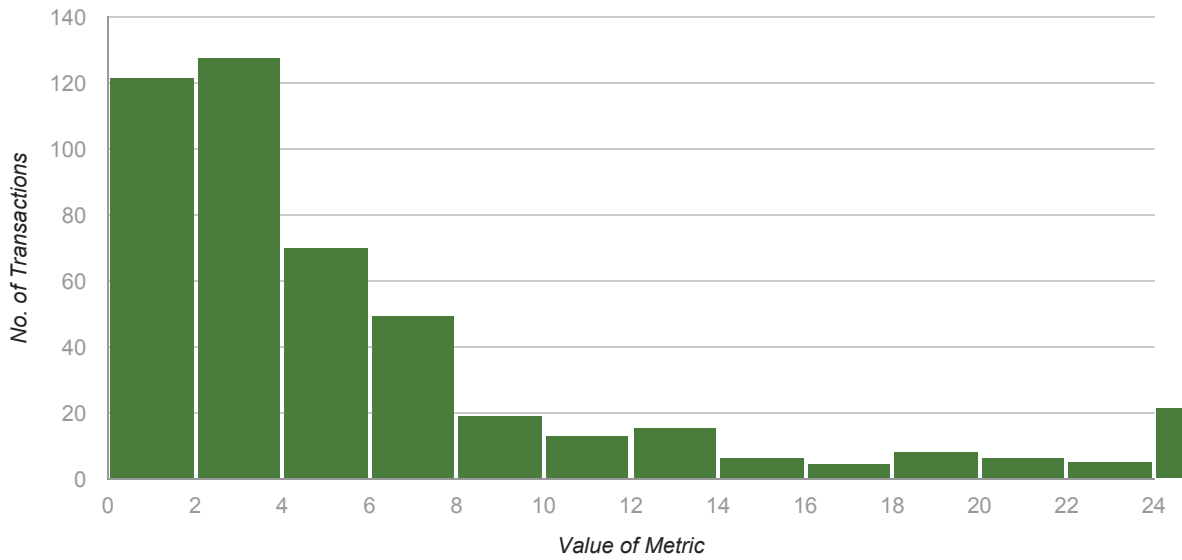
Date range: 02/29/1992 - 12/15/2021



Source: DealStats

Count: 702 **Min:** 0.06 **Max:** 111.21 **Mean:** 0.95 **Median:** 0.63

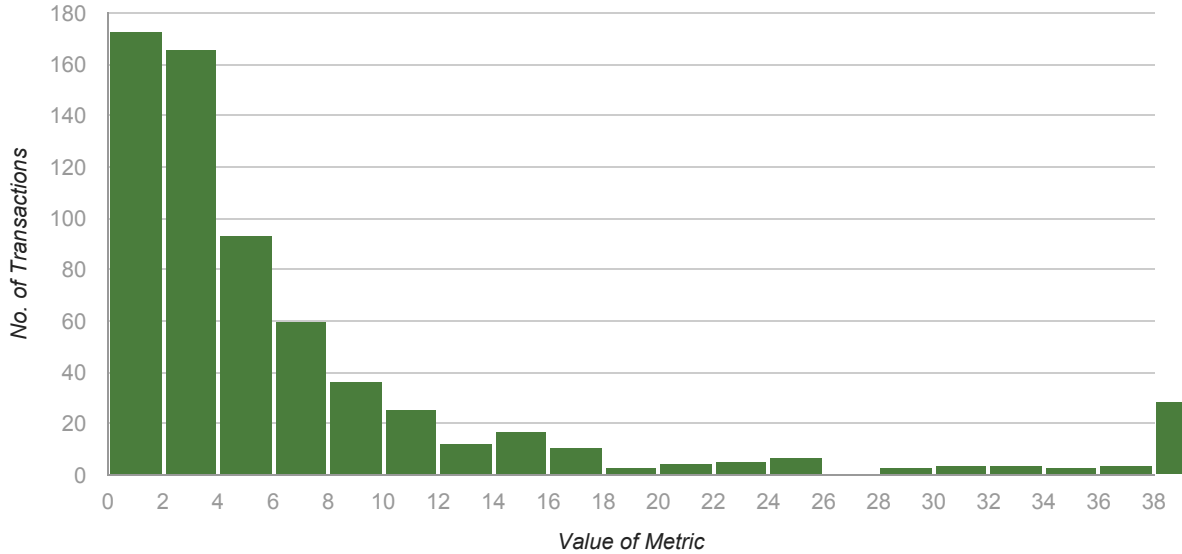
Price to Gross Profit = Selling Price/Gross Profit
Date range: 02/29/1992 - 12/15/2021



Source: DealStats

Count: 464 **Min:** 0.21 **Max:** 3389.83 **Mean:** 15.66 **Median:** 3.64

Price to EBITDA = Selling Price/Operating Profit + Depreciation & Amortization
Date range: 02/29/1992 - 12/15/2021



Source: DealStats

Count: 646

Min: 0.0

Max: 3389.83

Mean: 12.92

Median: 3.8

Price to EBIT = Selling Price/Operating Profit
Date range: 02/29/1992 - 12/15/2021

Selling Price, also known as MVIC (Market Value of Invested Capital) is the total consideration paid to the seller and includes any cash, notes and/or securities that were used as a form of payment plus any interest-bearing liabilities assumed by the buyer. The MVIC price includes the noncompete value and the assumption of interest-bearing liabilities and excludes (1) the real estate value and (2) any earnouts (because they have not yet been earned, and they may not be earned) and (3) the employment/consulting agreement values. In an Asset Sale, the assumption is that all or substantially all operating assets are transferred in the sale. In an Asset Sale, the MVIC may or may not include all current assets, non-current assets and current liabilities (liabilities are typically not transferred in an asset sale).

Source: DealStats 2019 (Portland, OR; Business Valuation Resources LLC). Used with permission. DealStats is available at <https://www.bvresources.com/learn/dealstats>

Financial Benchmarks

The following financial benchmark data is based on annual financial statements submitted by member institutions of the Risk Management Association from Q2 of the first year listed through Q1 of the following year.

Financial Ratios (Auto Repair Shops, Industry-wide)

MEASURE	2018-19	2019-20	2020-21
Current Ratio [?]	1.72	1.28	1.54
Quick Ratio [?]	.87	.88	1.03
Days Inventory [?]	18.69	19.88	27.0
Days Receivables [?]	10	5	14
Days Payables [?]	8.24	21.17	17.86
Pre-tax Return on Revenue [?]	5.21%	3.89%	7.55%
Pre-tax Return on Assets [?]	17.38%	19.25%	11.57%
Pre-tax Return on Net Worth [?]	47.41%	95.28%	42.82%
Interest Coverage [?]	11.60	11.85	6.96
Current Liabilities to Net Worth [?]	.64	1.79	.84
Long Term Liabilities to Net Worth [?]	1.09	2.16	1.86
Total Liabilities to Net Worth [?]	1.73	3.95	2.70
<i>Number of Firms Analyzed</i>	471	385	293

Income Statement (Auto Repair Shops, Industry-wide)

ITEM	2018-19	2019-20	2020-21
Revenue	100.0%	100.0%	100.0%
Cost of Sales	45.5%	44.94%	41.69%
Gross Margin	54.5%	55.06%	58.31%
Officers Compensation	4.22%	3.49%	3.44%
Salaries-Wages	15.29%	14.84%	17.26%
Rent	5.49%	5.58%	5.99%
Taxes Paid	3.21%	3.23%	2.95%
<i>Number of Firms Analyzed</i>	471	385	293

ITEM	2018-19	2019-20	2020-21
Advertising	1.26%	1.32%	1.29%
Benefits-Pensions	0.99%	1.01%	1.33%
Repairs	1.13%	1.14%	1.53%
Bad Debt	0.13%	0.15%	0.14%
Other SG&A Expenses	12.16%	13.43%	14.81%
EBITDA	10.63%	10.87%	9.57%
Amortization-Depreciation	2.74%	2.78%	2.3%
Operating Expenses	46.62%	46.97%	51.04%
Operating Income	7.88%	8.09%	7.27%
Interest Expense	1.7%	1.96%	2.05%
Other Income	-0.38%	-0.36%	-1.89%
Pre-tax Net Profit	6.56%	6.49%	7.11%
Income Tax	0.09%	0.14%	-0.79%
After Tax Net Profit	6.47%	6.35%	7.9%
<i>Number of Firms Analyzed</i>	471	385	293

Balance Sheet (Auto Repair Shops, Industry-wide)

ASSETS	2018-19	2019-20	2020-21
Cash	24.58%	24.73%	34.55%
Receivables	9.8%	10.16%	8.3%
Inventory	16.33%	15.41%	11.45%
Other Current Assets	2.39%	2.65%	3.08%
Total Current Assets	53.1%	52.95%	57.39%
Net Fixed Assets	31.27%	33.07%	28.95%
Net Intangible Assets	8.44%	6.17%	6.93%
Other Non-Current Assets	7.19%	7.8%	6.71%
<i>Total Assets</i>	100.0%	100.0%	100.0%

LIABILITIES

Accounts Payable	11.54%	10.94%	7.69%
Loans/Notes Payable	16.86%	15.17%	15.89%
Other Current Liabilities	16.58%	12.84%	14.75%
Total Current Liabilities	44.98%	38.94%	38.32%
Total Long Term Liabilities	38.01%	37.24%	41.95%
Total Liabilities	82.98%	76.19%	80.27%
Net Worth	16.99%	23.81%	19.74%
Total Liabilities & Net Worth	100.0%	100.0%	100.0%
<i>Number of Firms Analyzed</i>	471	385	293

Vertical IQ financial benchmark data is based on data provided by the Risk Management Association (RMA) and Powerlytics, Inc. RMA's Annual Statement Studies provide comparative industry financial benchmarks based on financial statements of small and medium business clients of RMA's member institutions. Additional detail on income statement line items is provided using Powerlytics financial benchmarks, which are based on reporting submitted to the IRS. Additional detail on these data sources can be found at [RMA](#) and [Powerlytics](#).

Quarterly Insight

4th Quarter 2022

Commuting Drives Demand for Vehicle Repairs

The return to the office after more than two years of remote work during the pandemic is driving demand for car repairs, The Wall Street Journal reported in September. As workers get back to commuting – with many choosing to drive alone rather than taking public transportation – vehicle wear and tear is increasing. The return to commuting along with record high new car prices causing some motorists to hold on to older cars are driving sales of car parts needed for repairs and maintenance, according to WSJ.

3rd Quarter 2022

Rodent-Related Repairs Rise

Rodent-related repair issues are on the rise in New York City, as vehicle ownership and disruption to rats' normal routines increased during the COVID-19 pandemic, The New York Times reported in August. Of the 28 mechanics the Times interviewed, 20 reported an increase of vermin in cars, and of those, 10 said the number of such appearances had doubled during the pandemic. Rats are attracted by engine warmth and the use of soy-based insulation for car wiring, which rats apparently find tasty. Environmentally-friendly soy-based wiring and insulation largely replaced petroleum and oil-based insulations beginning around 2000, according to Motor Verso. Repairs can be expensive once the problem is diagnosed. Mechanics in Manhattan say rat-related repairs are bringing in a lot of business but are disgusting.

2nd Quarter 2022

Move to EV Shapes Technician Training and Tools

Industry experts foresee auto repair firms needing to delve deeper into electronics repair and software tools as automakers replace combustion engines with electric ones over the next 10-15 years and vehicles become increasingly computerized and laden with sensors and cameras. Vehicles will be better able to “communicate” with technicians, which would speed diagnosis and repair. In 5-10 years, the average repair order is forecast to be \$6,000-7,000 as a result of higher parts costs and wages to pay more highly-trained technicians.

1st Quarter 2022

Drivers May Opt to Repair Amid High Car Prices, Low Inventories

A global semiconductor shortage has driven up new and used car prices, which may prompt some drivers to have their aging vehicles repaired instead of replacing them. Higher values for new and used cars have also changed the calculation for whether or not a vehicle is declared a total loss after an accident, according to The New York Times. Some repair shops report an uptick in parts and service sales as vehicle values have risen. According to Edmunds, the average price of a new car was \$46,426 in December, up 14% from a year earlier. Used car prices rose 29% over the same period. Prices may moderate once the semiconductor shortage eases and auto production improves. Global semiconductor inventories saw a slight improvement in the fourth quarter of 2021, but inventories remain below normal levels, according to Gartner. While Gartner expects chip inventories to normalize during the second quarter of 2022, further restrictions or supply chain disruptions caused by Omicron could push the semiconductor supply recovery out to the fourth quarter.

4th Quarter 2021

Dealer Groups See Jump in Q3 Repair, Parts Revenue

The US's top six franchised vehicle dealer groups reported higher year-over-year parts and service revenue in the third quarter 2021 as more consumers brought in their vehicles for repairs after putting off the fixes earlier in the pandemic, according to Wards Auto. The six dealer groups (Asbury, AutoNation, Group 1, Lithia, Penske, and Sonic) saw their combined Q3 parts and service revenue rise by \$2.8 billion over Q3 2020. Several dealer groups reported that while customer-pay services demand is rebounding, warranty work and collision repair services have been slower to recover.

3rd Quarter 2021

Rapid Spread of Delta Variant May Slow Commuting Rebound

Depending on the state or city where they operate, repair shops may experience a rise in demand as driving activity continues to normalize. Since April 2020, vehicle miles traveled has gradually increased as more states fully reopened, according to traffic data from the Federal Highway Administration. However, rising COVID-19 cases amid the rapid spread of the Delta variant of coronavirus may inhibit some firms' plans to bring workers back to the office. As of August 5, the 14-day change in new cases of COVID-19 was up 119%. While new cases – as well as hospitalizations and deaths – were on the rise, they are well below the peaks seen earlier in the pandemic. On July 27, the Centers for Disease Control and Prevention (CDC) announced that fully vaccinated people should wear masks indoors in areas with high rates of COVID-19 transmission. The recommendation marked a reversal of CDC guidance on May 13 that said Americans who are fully vaccinated against COVID-19 could stop wearing masks and maintaining social distance in most settings. The updated recommendations are due to health officials' concerns that fully vaccinated people could contract and spread the Delta variant.

2nd Quarter 2021

Semiconductor Shortage Drives Used Car Demand

Demand for used cars has increased amid a global semiconductor shortage that has limited new car production. The average used car trade-in value reached an all-time high in March 2021, according to Edmunds. Trade-ins in March were averaging more than \$17,000, up 21% compared to March 2020. The root causes of the semiconductor shortage reach back to the beginning of the pandemic when consumer buying patterns shifted and supply chains were disrupted. Carmakers cut back on production - and computer chip consumption - while home-bound consumers ramped up purchases of computers, game consoles, and other chip-containing electronics. When auto production bounced back, the whipsaw in chip demand – combined with US sanctions on Chinese tech and bad weather – made the semiconductor shortage worse. Gartner expects the shortage could persist into Q2 of 2022. The increase in used car sales might lead to more demand for auto repair shops.

1st Quarter 2021

Cars That Sat Idle During Pandemic May Boost Demand

As consumers have driven less, some are finding problems with their vehicles that were caused by long periods of sitting idle. Mechanics have reported higher instances of calls for dead batteries that need recharging or replacement. Other problems related to parking for long periods include rusty brake rotors and calipers, flat spots on tires, and motor oil contamination caused by condensation. Repair shops may see more calls related to idled vehicles as vaccinations gather pace, new COVID-19 cases drop, and state and local economies continue to return to pre-pandemic ways of life. Between

mid-December and mid-March, more than 113 million doses of vaccine were administered, reaching more than 22% of the US population, according to the Centers for Disease Control and Prevention (CDC). In mid-March, the US was giving more than 2.4 million shots per day.

Call Prep Questions

Working Capital

What's your average repair bill (ticket)?

The average hourly rate for auto repairs ranges \$75-130.

Do you participate in any Direct Repair Programs?

Auto repair shops take in customer repairs or work primarily with an insurance provider's "Direct Repair Program" (DRP).
DRP-affiliated shops receive direct referrals from an insurance company.

Do you work with a finance company to extend terms to customers who have high repair bills?

Some repair facilities, particularly larger chains, partner with banks or finance corporations to extend credit terms to customers.

What challenges do you face in collecting from customers?

Collection periods average 5 to 10 days. For more expensive repairs paid by check, the repair shop may first require bank pre-approval.

Do you pay your mechanics by a "flag rate," or are they paid hourly?

A flag rate is an industry average for the allotted time a repair should take.

What metrics do you track to manage your business?

Key metrics tracked include average repair bill, repairs per month, repairs per mechanic, and billable time per mechanic.
Collision repair shops also measure cycle time - the elapsed time to complete a repair.

Capital Financing

Do you have any plans to expand to additional locations? If so, how do you finance these new shops?

Small, two- or three-bay shops can cost less than \$50,000 to launch, while larger repair shops can reach upwards of \$500,000.

If a franchisee, how much have you invested in your operation?

The total franchise capital investment is around \$200,000 to \$400,000, and franchise royalties average around 4%.

How often to you purchase new equipment (lifts, paint booths, diagnostic equipment)?

Lifts can cost \$15,000 to \$20,000 each.

How Firms Operate

How many bays do you manage?

A typical auto repair shop operates fewer than 10 bays, while a collision repair center manages fewer than 20.

What type of relationship do you have with your parts suppliers?

The ability to source parts for a wide variety of vehicles in a timely manner is key to efficient repairs and customer satisfaction.

How do you dispose of used oil and fluids?

Regulations forbid the disposal of used oil and radiator coolant into sewer systems, so shops must collect and store them for pick-up by a disposal service.

How much revenue do you generate from routine maintenance and oil changes?

Preventative maintenance represents 20% of industry revenue. Oil changes average about 8%.

Industry Risks

How has the economy impacted demand for your services?

Economic slowdowns can boost the repair industry, but when the economy is very bad, people tend to put off repairs.

How does your shop keep up with new vehicle technology?

Today's automobiles are "computers on wheels" and require extensive technical knowledge.

How does your company overcome the negative perception of vehicle repair shops?

Repair shops have had image problems for decades: This can be a challenge or an opportunity.

How do you effectively compete with local dealerships for repair work?

Dealerships typically make more money from repairs than from new car sales.

Industry Trends

What types of social media applications does your shop use? How effective are they?

Repair shops can benefit from participating in social media, using it to respond to customer concerns.

Does your shop tailor customer service to the needs and interests of women?

Some repair shops have developed programs to address the needs of women.

What's your position on "Right to Repair" legislation?

Automobile manufacturers had to make diagnostic codes available to all independent repair shops and parts retailers before the 2018 model year vehicles were available.

Industry Terms

Cycle time (CT)

The number of days required to complete a job; an efficiency measure used for collision repair.

DRP

Direct Repair Program; provides referrals for repairs from insurance companies.

Flag rate

Industry average for time required for a specific repair task.

OBD-II

On-board diagnostic system for detecting needed repairs.

Right to Repair

Legislation that would require car manufacturers to share diagnostic information with independent repair shops.

Web Links

[Auto Care Association](#)

Industry association for products and services typically purchased after the sale of a vehicle.

[Automotive Service Association \(ASA\)](#)

Industry association for the automobile repair industry.

[National Institute for Automotive Service Excellence \(ASE\)](#)

Independent non-profit that certifies all segments within the automotive industry.

[Body Shop Business](#)

News, reports, insights, and links for the collision industry.

Related Profiles

[Auto Dealerships](#)

NAICS: 441110 SIC: 5511

[Auto Parts Distributors](#)

NAICS: 423120 SIC: 5013, 5015, 5531

[Auto Parts Manufacturers](#)

NAICS: 3363 SIC: 2396, 2399, 2531, 3292, 3429, 3465, 3499, 3519, 3585, 3592, 3599, 3647, 3694, 3714, 3799

[Auto Parts Retailers](#)

NAICS: 441310 SIC: 5013, 5015, 5531

[Automobile Manufacturers](#)

NAICS: 336111, 336112 SIC: 3711

[Tire Dealers](#)

NAICS: 441320 SIC: 5014, 5531

Niche Profiles

[Auto Glass Replacement Shops](#)

NAICS: 811122 SIC: 7536

[Oil Change & Lubrication Shops](#)

NAICS: 811191 SIC: 7549

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