YOU DEPEND ON DATA
DEPEND ON ACT RESEARCH

ACT **Research**

About ACT Research

Americas Commercial Transportation (ACT) Research, Co., is the leading publisher of commercial vehicle (CV) industry data, market analysis, and forecasting services for the North American market. Our commitment to data quality & integrity, in-depth analysis, and timeliness has made our services the industry standards, as demonstrated by our being awarded the 2019 Lawrence R. Klein Award Winner for the most accurate economic forecast from 2015-2018.

OUR MISSION

We are the leaders in economic forecasting for the commercial vehicle industry. We offer various products and services to meet clients' needs, build lasting relationships, and provide accessible and dependable information to help our subscribers prepare for the future.

OUR WORK

ACT Research was founded in 1986 to improve and expand North American commercial vehicle analysis to promote a better understanding of the transportation industry. By working directly with commercial vehicle manufacturers, ACT Research collects and confidentially shares timely market and performance data that comprehensively looks at the industry's past and present performance, with an in-depth analysis of future expectations. All major North American truck and trailer manufacturers, suppliers, and banking and investment companies use ACT's analytical services. ACT Research is a contributor to the Blue Chip Economic Indicators and a Wall Street Journal Economic Forecast Panel member.

AWARDS AND RECOGNITION

2019 LAWRENCE R. KLEIN BLUE CHIP AWARD
FOR FORECAST ACCURACY 2015-2018

CHICAGO FEDERAL RESERVE AUTOMOTIVE OUTLOOK
SYMPOSIUM BEST OVEREALL FORECAST

CONSULTING ECONOMIST TO THE NATIONAL PRIVATE TRUCK COUNCIL

WALL STREET JOURNAL TOP ECONOMIC OUTLOOK

USA TODAY TOP 10 ECONOMIC FORECASTERS

CONTRIBUTIONS AND PARTNERSHIPS

BLUE CHIP ECONOMIC INDICATOR CONTRIBUTOR

WALL STREET JOURNAL ECONOMIC FORECAST PANEL

DAT FREIGHT & ANALYTICS

CASS INFORMATION SYSTEMS

LMC AUTOMOTIVE PARTNERSHIP

RHEIN & ASSOCIATES PARTNERSHIP

WHAT DO WE DO?

ACT RESEARCH IS THE TRUSTED SOURCE FOR DATA, ANALYSIS, AND FORECASTING OF THE COMMERCIAL VEHICLE AND TRANSPORATION MARKETS.

ACT Research aggregates information from public and private databases, examines various economic trends, and utilizes years of industry experience to forecast the short and long-term of the industry. The short-term forecast allows industry constituents to plan tactically for sales, expenses, and other variables. Long-term forecasts provide valuable information about the future state of the industry, allowing businesses to prepare for long-term vitality. In short, we provide information that helps significant organizations better understand and plan the future of their business.

DATA. ANALYSIS. INSIGHTS.

1. Data shared by Truck and Trailer OEMs to ACT Research monthly
2. Used Truck data shared by CV Dealers to ACT Research monthly
3. Publishes 11 monthly and 4 quarterly reports with complete data and analysis provided
4. Developed a series of forecast, current/historical, and executive reports
5. Developed 5 databases independent of reports to review transportation and CV markets

OUTLOOK SERIES

ACT RESERACH
FORECASTS REPORTS

ACT Research produces five forecast reports published at regular intervals. Most well-known is the best-in-class N.A. COMMERCIAL VEHICLE OUTLOOK REPORT. The N.A. CV OUTLOOK is ACT's cornerstone report, informing manufacturers, suppliers, and investors of the 1-5 year forecast. Published on the 10th of each month (unless the 10th falls on a Saturday or Sunday), this report has been a staple for the market for more than two decades.

Other forecast reports include:
- N.A. Commercial Vehicle OUTLOOK PLUS*
- Freight Forecast: U.S. Rate and Volume OUTLOOK
- U.S. Used Truck Price OUTLOOK
- N.A. On-Highway CV Engine OUTLOOK
- New Trailer Components & Raw Materials Forecast

*An upgrade of NA CV OUTLOOK, provides a quarterly update of BEV, FCEV, & NG forecasts, and adoption rates.

OEM REPORTED DATA

Once the OEMs have reported their data, ACT Research releases preliminary numbers before finalizing this information in the form of 5 reports

- N.A. Classes 5-8 Vehicles
- N.A. Classes 5-7 Bus Market
- N.A. Classes 5-8 Vehicles by Country
- N.A. OEM Classes 5-8 Build & Retail Sales
- U.S. Trailers

These reports are a 30-day snapshot of the market(s) and focus on key market indicators. Additionally, these reports are accompanied by various databases specific to the reports. These databases date from 1996, allowing clients to build their own models and use ACT's N.A. Commercial Vehicle OUTLOOK as a benchmark.

DEALER REPORTED DATA

Another State of the Industry publication is the U.S. Used Trucks Classes 3-8 report. Rather than data reported by OEMs, CV dealers nationwide report their monthly used truck sales data. ACT aggregates this data to identify:

- sales (units)
- average sale price
- average age
- average miles

With over 40% of all used truck transactions being processed, the Used Truck report complements the production-based SOI reports.

STATE OF THE INDUSTRY SERIES

ACT RESEARCH HISTORICAL/CURRENT MONTH REPORTS
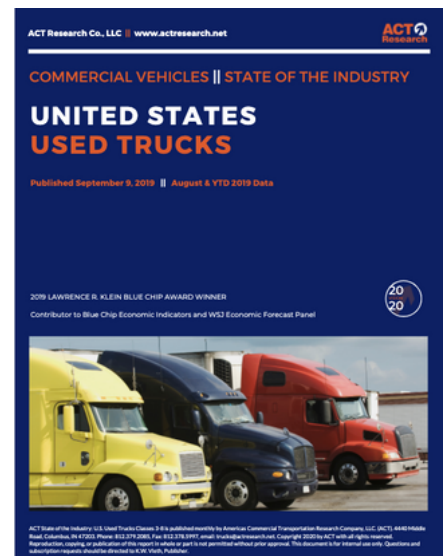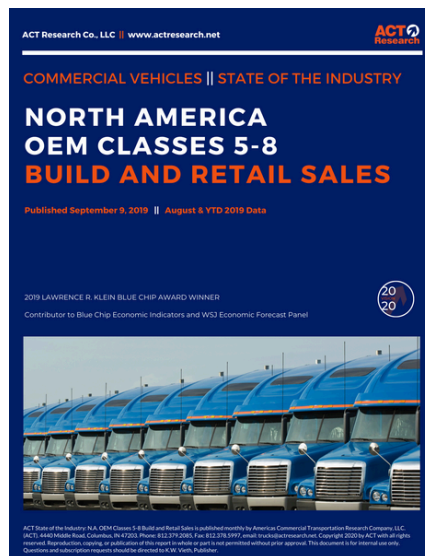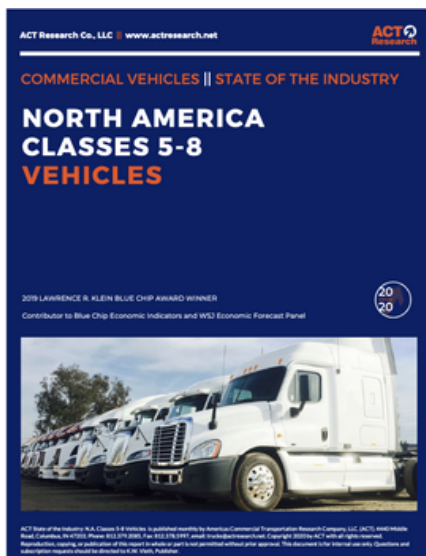
DIGEST SERIES

ACT RESEARCH
EXECUTIVE SERIES REPORTS

ACT publishes two digest reports for those busy business owners and corporate executives. These reports are designed to be short but information-rich reports fo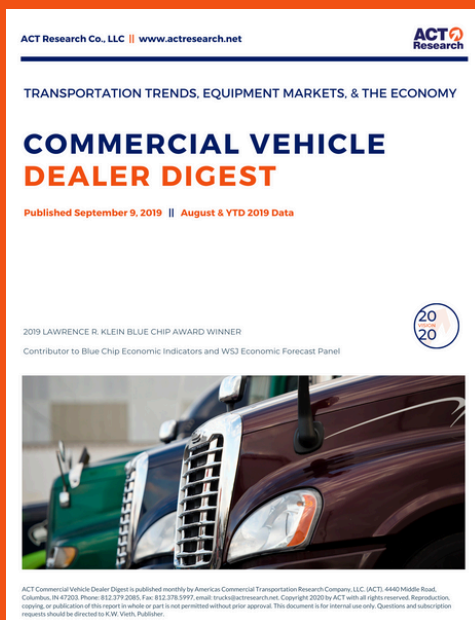cusing on the respective markets' key take-aways. While these reports aren't of benefit for all segments of the market, they are very valuable for specific segments.

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TRANSPORTATION TRENDS, EQUIPMENT MARKETS, & THE ECONOMY

COMMERCIAL VEHICLE
DEALER DIGEST

Published September 9, 2019 ‖ August & YTD 2019 Data

2019 LAWRENCE R. KLEIN BLUE CHIP AWARD WINNER

Contributor to Blue Chip Economic Indicators and WSJ Economic Forecast Panel

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TRANSPORTATION TRENDS, EQUIPMENT MARKETS, & THE ECONOMY

TRANSPORTATION
DIGEST

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ACT Research produces five additional databases to benefit the market. These databases focus on freight and economic sectors and are available independently from a report purchase.

- Publicly Traded Truckload Carrier Database
- Publicly Traded Less-Than-Truckload Carrier Database
- Freight Database
- Economic Database

These databases are beneficial in model building and analysis. The indicators in these databases are also utilized by ACT research in our internal analysis as we forecast and build our internal models.
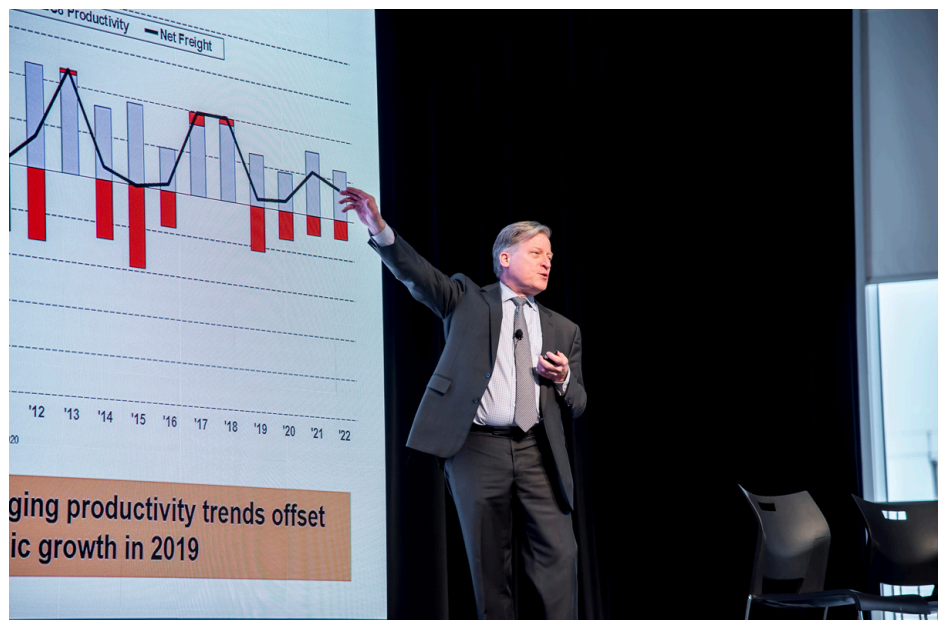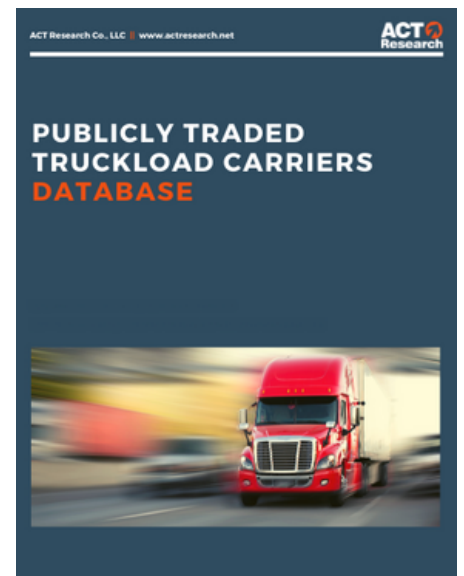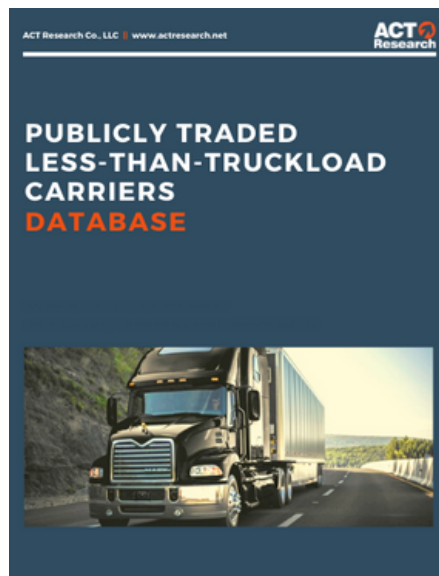
DATABASES

ACT RESEARCH DATABASES

PROJECTS & CONSULTING

As thought-leaders in transportation, ACT Research has worked with dozens of organizations and businesses to execute custom projects and consultative work.

EMA Low Nox Standards Project

Starting in 2019, ACT Research was approached to help inform organizations interested in the future of emission standards. This work helped to inform the EMA, CARB, EPA, and NREL of the science and technology opportunities and challenges in question as regulatory standards are being reviewed and decided upon for the future of transportation.

EMA PreBuy Analysis

With the release of the EPA Low Nox Regulations in the spring of 2022, ACT Research was once again approached by the EMA, this time to provide a pre-buy analysis on the potential impact of the EPA regulations in 2024 and 2027.

Tortoise & Hyliion Due Diligence

In early 2020, ACT Research worked with Tortoise and Hyliion in preparation for their IPO. ACT Research completed and shared a comprehensive TCO model which was modified for the IPO.

Nikola Due Diligence

In 2019, ACT Research was hired by Nikola in preparation for their IPO to provide market due diligence and understanding.

Battery Electric Vehicle Due Diligence

In 2021 ACT Research was approached to support the due diligence of the SPAC of new-entrant Battery Electric Vehicle OEM.

Autonomous Technology Due Diligence

In 2021 ACT Research was approached to support the due diligence of the SPAC of a new-entrant Autonomous Technology Supplier.

Fleet Utilization Modeling

A large leasing organization has contracted ACT Research to produce a regularly updated fleet-utilization model for both MD and MH vehicles, supporting this company's understanding of when to grow or shrink their fleet.

Used Price Forecast

Various large leasing firms and dealerships have contracted ACT Research to develop custom used-price vehicle forecasts for select GVW and age vehicles. We've since transitioned this work into an of-the-shelf-product.
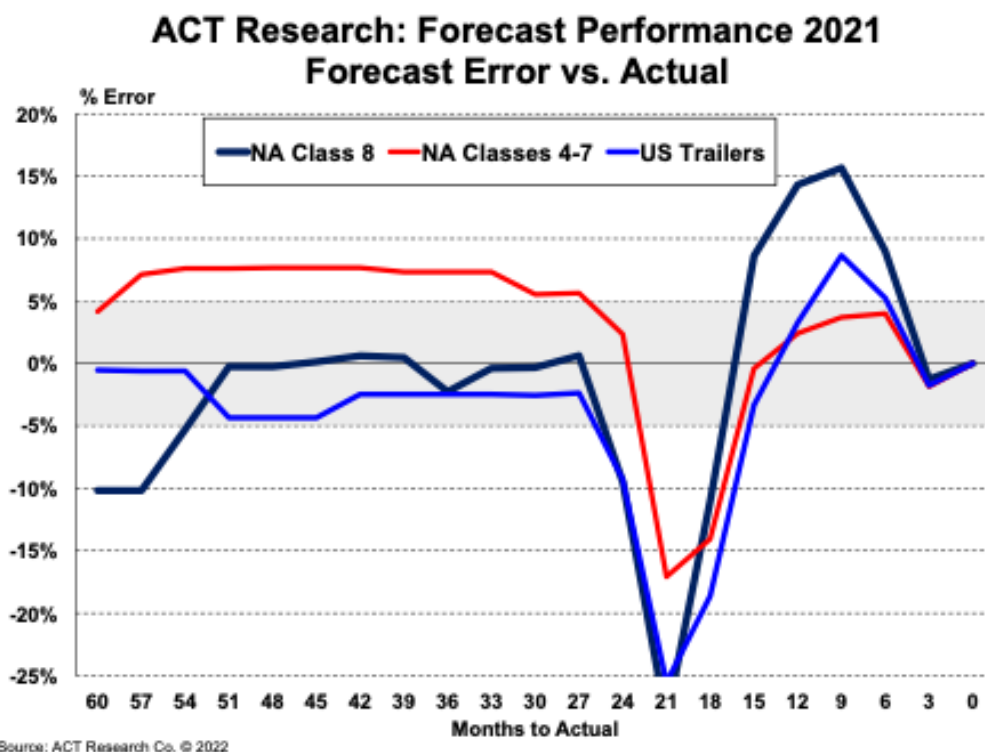
FORECAST ACCURACY

EXOGENOUS EVENTS IMPACT ACCURACY IN 2021

The 2021 forecast cycle started in 2017, the transition year between freight cycles. As such, 2021 was identified as the anticipated transition year ahead of the next freight cycle. With the economy and commercial vehicle markets generally lining up with expectations from 2017 to 2019, there was little reason to change the forecasts through the first three years of the 2021 forecast cycle.

The shock of COVID at the start of 2020 and the unknown impacts of the first pandemic in a century caused us to become overly cautious in our guidance through the first half of 2020 before the recognition of the implications of the pandemic (and massive stimulus) set in: If consumers can't spend on services, they are going to spend on goods and supercharge the freight cycle.

The second part of the big miss is the second exogenous event: The unprecedented failure of supply chains to rise in the face of surging demand and exceptionally long backlogs. As an illustration, from a slightly worse backlog and identical production units/day starting point in 2018, the Class 8 industry managed to build 324,500 units that year compared to the 264,500 units built in 2021.
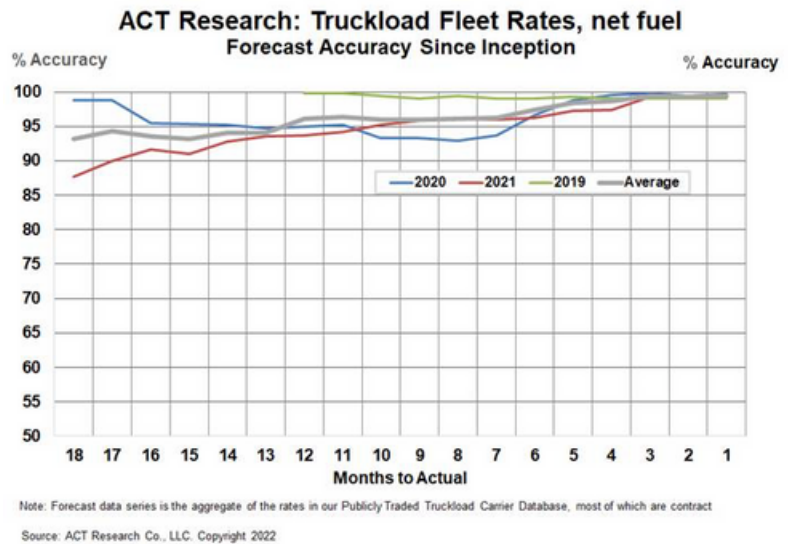
In addition to the 264,500 Class 8 units produced in North America in 2021, MD Classes 4-7 production totaled 264,200 units, while US Trailer OEMs produced 267,400 units during the year.
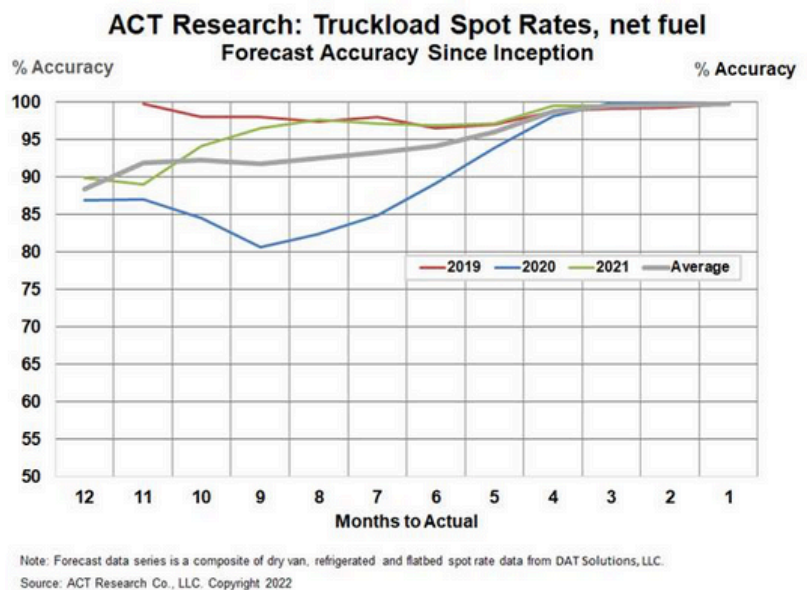

ACT Research: Forecast Performance 2021
Forecast Error vs. Actual

Source: ACT Research Co. © 2022

The 2021 TL Fleet Rate (which is ~90%-95% contract, with a little spot), the red line shows our forecast was about 12% low from 18 months out, or mid-2020. By the start of 2021, or 12 months out, we were within 6%. The green line notes 2019 rates, and while we don't have an 18-month look at 2019 rates because we started this monthly forecast in February of 2019, this forecast was just 0.2% from the actual – within a penny.

ACT Research: Truckload Fleet Rates, net fuel
Forecast Accuracy Since Inception

% Accuracy ... % Accuracy

Legend: 2020, 2021, 2019, Average

Months to Actual

Note: Forecast data series is the aggregate of the rates in our Publicly Traded Truckload Carrier Database, most of which are contract

Source: ACT Research Co., LLC. Copyright 2022

TL Spot Rate for 2020, you can see the greatest error was from 9 months out, as the pandemic was beginning. The 2020 full-year spot rate beat our pre-pandemic forecasts from Q1'20 by 13%-19%.

ACT Research: Truckload Spot Rates, net fuel
Forecast Accuracy Since Inception

% Accuracy ... % Accuracy

Legend: 2019, 2020, 2021, Average

Months to Actual

Note: Forecast data series is a composite of dry van, refrigerated and flatbed spot rate data from DAT Solutions, LLC.

Source: ACT Research Co., LLC. Copyright 2022

SPEAKING AND EVENTS

ACT RESEARCH IS THE TRUSTED SOURCE FOR DATA, ANALYSIS, AND FORECASTING OF THE COMMERCIAL VEHICLE AND TRANSPORATION MARKETS.

The team of analysts at ACT Research is one of the world's most respected and celebrated subject matter experts in the commercial vehicle industry. For more than 30 years, as the market and industry have changed, ACT Research has continued to understand the industry's nuances and to assist businesses by providing data and analysis that matters. Our team of analysts has spoken for dozens of audiences at conferences and events across the globe.

ACT'S OUTLOOK SEMINARS

ACT's seminars are held twice per year in Columbus, Indiana for the benefit of our clients and the industry as a whole. Attendees to our events include industry leaders and decision-makers to OEMs, suppliers, transportation, and investment firms in the commercial vehicle industry. ACT's customer base and guest speakers are high-level industry experts, representing their respective organizations' upper management and C-suite.

"I would recommend ACT Research to anyone that's looking for in-depth insight into what's happening in the commercial vehicle markets. The expertise and knowledge that goes into the service they provide, there's not a better solution, in my opinion, for commercial vehicle data than ACT Research."

- Jeff Trent, Mahle

WORKING WITH ACT RESEARCH

WHY ACT RESEARCH?

30+years of commercial vehicle analysis experience.

Contributor to Blue Chip Economic Indicators and Member of WSJ Economic Panel.

Awarded the 2019 Lawrence R. Klein Award Winner for the most accurate economic forecast from 2015-2018.

ACT's analytical services are used by all major North American truck and trailer manufacturers and their suppliers, as well as banking and investment companies.

Our staff includes experts in the commercial vehicle and transportation industry, along with strategic alliances with experts that increase our ability to provide value-added services to our clients.

ACT Research is known for industry expertise and ease of accessibility to our clients. For more than 30 years, ACT Research has been the leader in commercial vehicle forecasting partnering with OEMs to give businesses the ability to "peek around the corner" and see the short and long term progressions of the commercial vehicle and transportation markets.

CONTACT ACT RESEARCH TODAY TO GET THE INSIGHTS AND ANALYSIS YOU DESERVE.

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