



Detroit
Regional
Partnership



**GLOBAL EPICENTER
OF MOBILITY**
REVOLUTIONIZING THE DETROIT REGION

THE ROAD TO 2030
Advanced Driver Assistance Systems (ADAS) MODULE



INTRODUCTION

Active ADAS

Active ADAS systems intervene and assist in critical driving situations.

- Autonomous Emergency Braking (AEB)
- Autonomous Emergency Steering (AES)
- Adaptive Cruise Control (ACC)
- Lane Keeping Assist (LKA) and Lane Centering
- Front/Rear Cross Traffic Assist (CTA)
- Intelligent Parking Assist System (IPAS) / Advanced Parking Guidance System (APGS)
- Traffic Jam Assist (TJA)

Passive ADAS

Passive ADAS systems provide information and alerts to the driver without taking control of the vehicle.

- Anti-lock Braking Systems (ABS)
- Traction Control System (TCS)
- Electronic Stability Control (ESC)
- Back-up Camera
- Lane Departure Warning (LDW)
- Forward Collision Warning (FCW)
- Blind Spot Detection (BSD)
- Parking Assistance

Multi-purpose camera



Front radar sensor



Near-range camera



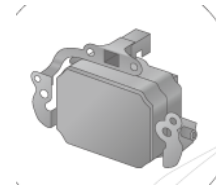
Ultrasonic sensor



Corner radar sensor



RADAR



Thermal camera



LiDAR



SONAR



ADAS ECUs (Electronic Control Unit)



Central Compute Unit (CCU)



Human-Machine Interface (HMI)





ADAS MODULE KEY FINDINGS

\$31 Billion

Forecast for 2030

**In the total size of
the U.S. ADAS Market**

20%

In the U.S. in 2024

**ADAS market penetration
in Adaptive Cruise
Control (ACC)**

+28.6%

In the U.S. from 2025-2032

**Compound Annual Growth
Rate (CAGR) in Aerospace
ADAS technology adoption**

+23%

from 2025-2032

**Growth in Detroit Region
jobs tied to ADAS-
equipped vehicle
production**



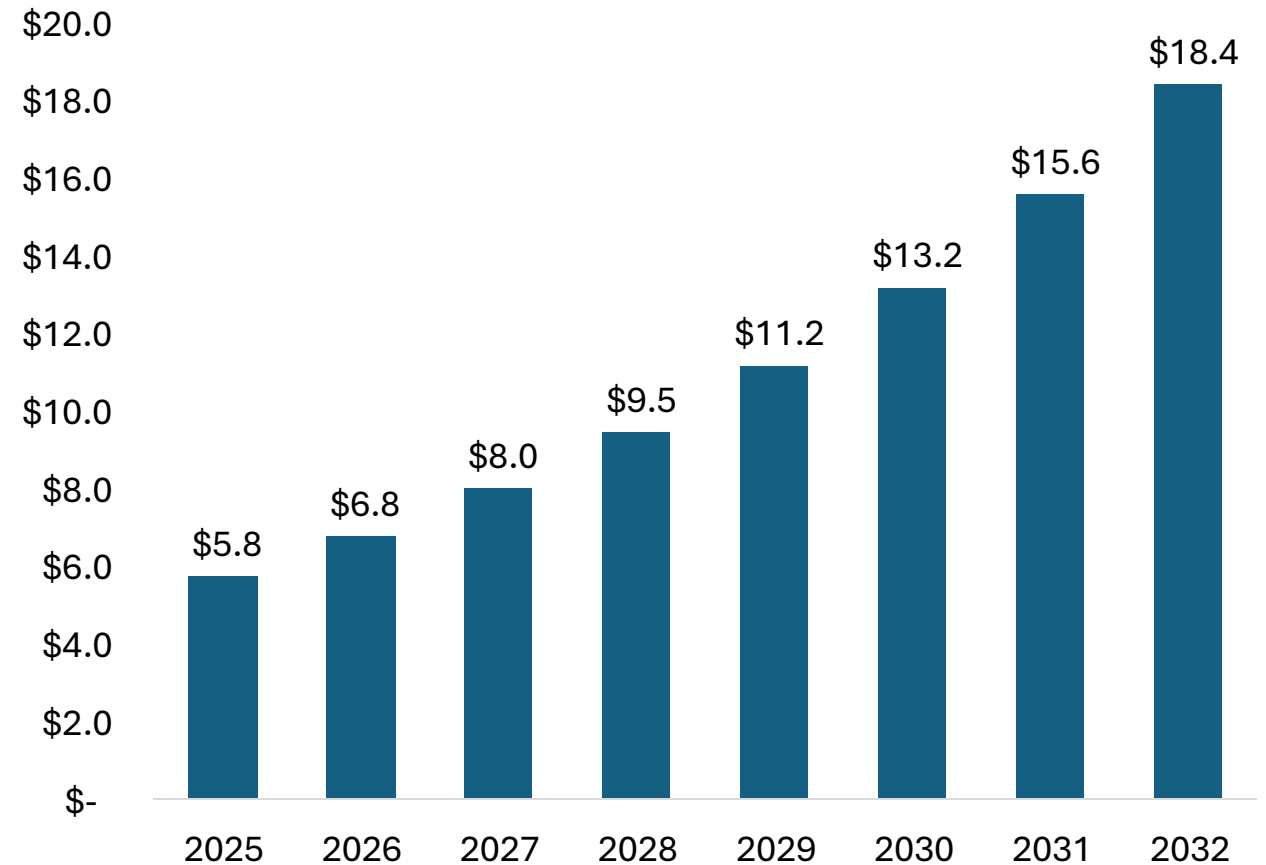
DATA & FORECASTS

The global ADAS software market is projected to more than triple between 2025 and 2032. Growth is driven by sensor fusion, perception, mapping, AI decision-making, cloud simulation, cybersecurity, and OTA updates.

Automotive AI is expanding rapidly (15.3% CAGR* to \$38.5B by 2030), with many OEMs partnering externally. Safety mandates and technology breakthroughs are accelerating adoption, and 89% of automotive organizations rank ADAS software as a top priority.

*Compound Annual Growth Rate (CAGR)

Global ADAS Software Market Size in USD, Billions



Source *Wipfli Analysis, Markets and Markets*

Lane departure warning systems are the ADAS technology with the highest forecast growth between 2025 and 2030, with a Compound Annual Growth Rate (CAGR) of 16.6%.

Automated parking assist systems, with a CAGR of 15%, and Blind spot detection systems, with a CAGR of 14%, are forecast to grow nearly as rapidly.

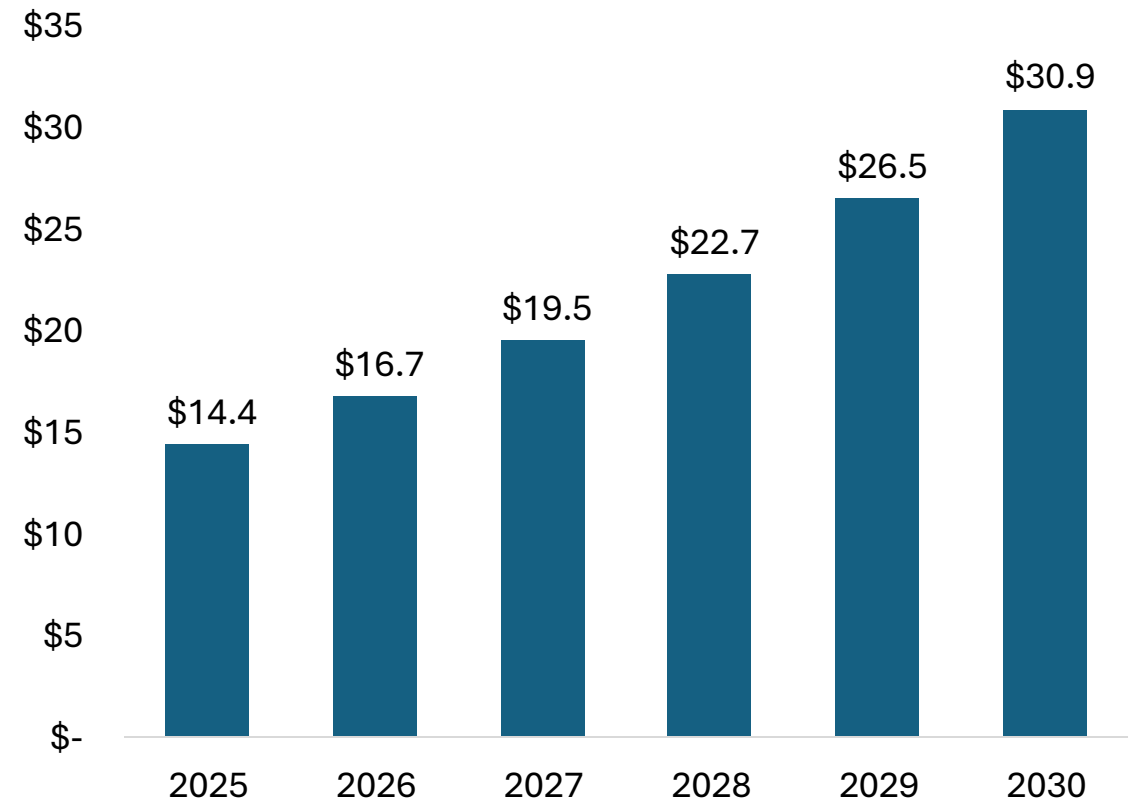
Application	2025 Market Size (\$ Bn)	2030 Forecast Market Size (\$ Bn)	Global CAGR (2025-2030)
Adaptive Cruise Control	\$33.5	\$73.9	7.5%
Tire Pressure Monitoring System	\$7.1	\$10.5	8.1%
Blind Spot Detection	\$3.2	\$6.2	14%
Automated Park Assist System	\$2.9	\$5.9	15%
Lane Departure Warning System	\$6.9	\$14.9	16.6%
Automated Emergency Braking	\$74	\$106	7.3%
Automotive Intelligent Lighting	\$8.2	\$12.2	8.9%

Source *Wipfli Analysis, Markets and Markets*

The North American ADAS market is growing rapidly, driven largely by strict safety regulations. A major near-term catalyst is NHTSA's rule requiring automatic emergency braking on all light vehicles by 2029.

The U leads the North American region due to the presence of global OEMs and advanced technology adoption, accounting for 69% of the North American market.

North America ADAS market size in USD (billion)



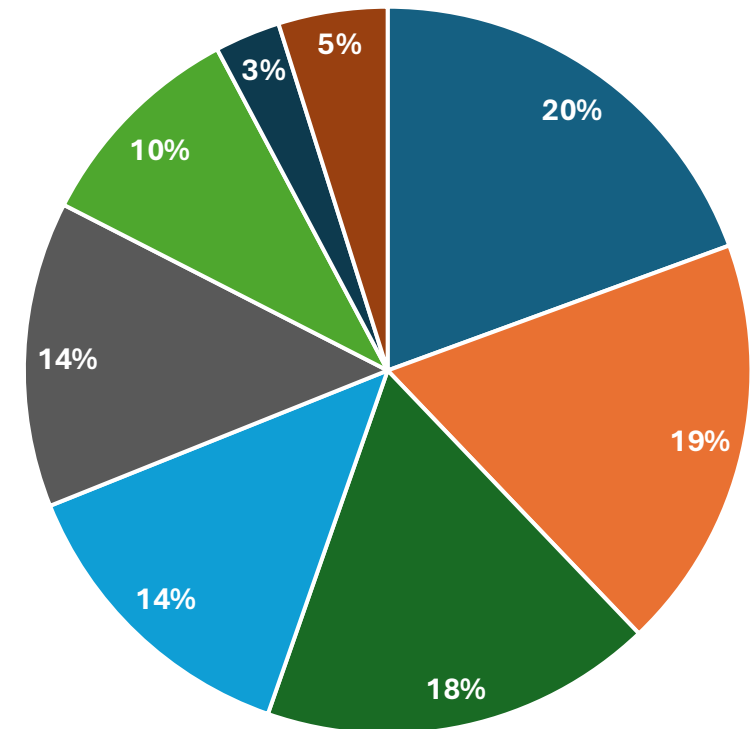
Source Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research

U.S. ADAS Market by Application (2024)

Adaptive cruise control (20%), tire pressure monitoring systems (19%), and blind spot detection systems (18%) are the dominant ADAS application in the U.S. market.

In 2024, these technologies comprised 57% of the U.S. ADAS market. Parking assistance systems, at 14%, are the next-highest share application.

- Adaptive Cruise Control
- Tire Pressure Monitoring System
- Blind Spot Detection System
- Park Assistance
- Lane Departure Warning System
- Autonomous Emergency Braking
- Adaptive Front Lights
- Others



While Light vehicle applications of ADAS technologies are expected to dominate through 2032, other mobility sectors are forecast to experience higher growth rates.

Despite lower volumes, Aerospace and Off-Highway applications are forecast to experience CAGR levels of 28.6% and 11.7%, respectively.

Growth by Mobility Sector

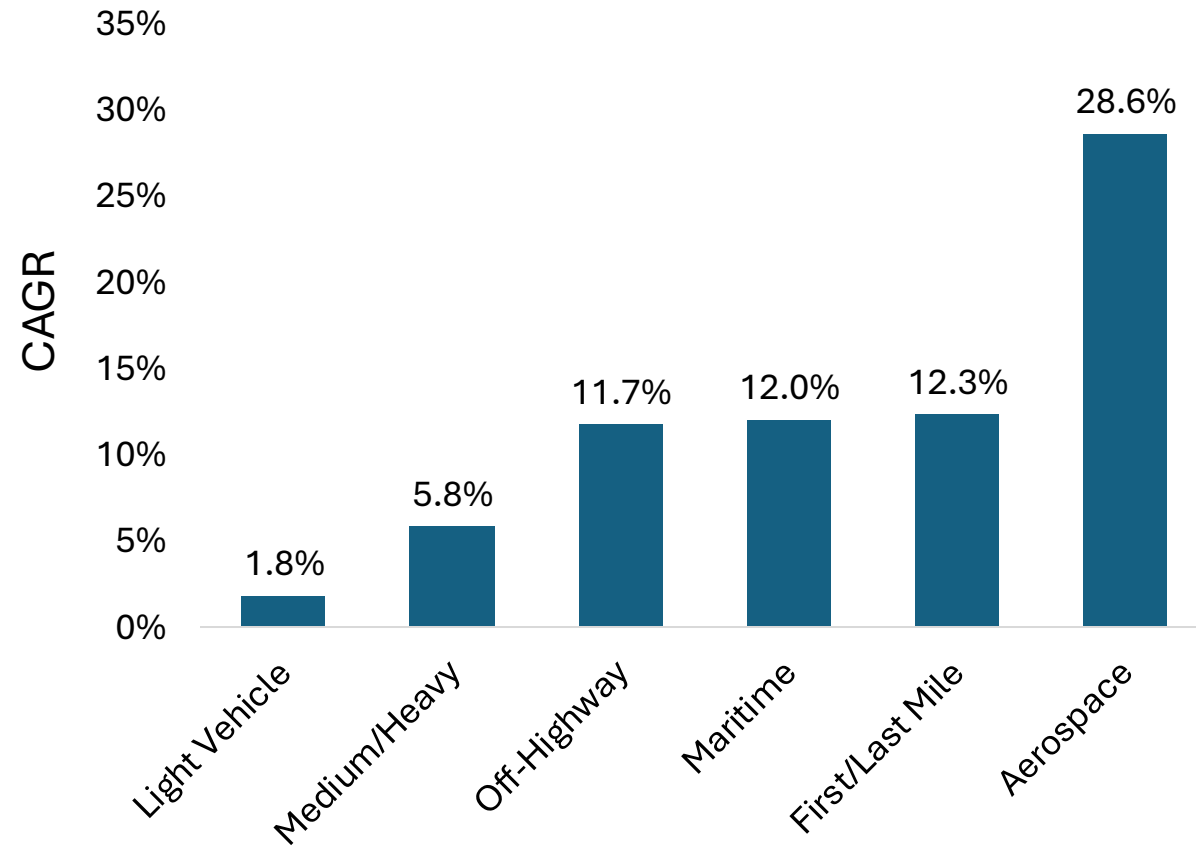
2025 Market Volume (units)	2032 Market Volume (units)	Most Adopted Application
Light Vehicle – 1.8% CAGR (2025-2032)		
8,522,716	9,634,618	AEB, FCW, BSD, LDW
Medium/Heavy Truck – 5.8% CAGR (2025-2032)		
205,500	304,480	AEB, FCW, BSD, LDW
Off-Highway – 11.7% CAGR (2025-2032)		
104,275	226,627	AEB, BSD, RCW
Maritime – 12.0% CAGR (2025–2032)		
56	124	Collision Avoidance
Aerospace – 28.6% CAGR (2025-2032)		
71	412	Collision Avoidance
First/Last-Mile Delivery – 12.3% CAGR (2025-2032)		
290	652	AEB, FCW, BSD

Source Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research

The U.S. mobility sector is projected to see its fastest growth in adjacent and emerging segments, led by aerospace (28.6% CAGR), followed by first/last mile, maritime, and off-highway vehicles, while traditional light vehicle growth remains modest at 1.8%.

The Detroit Region is uniquely positioned to lead this transition, leveraging decades of automotive expertise in engineering, manufacturing, and supply chain integration to expand into high-growth sectors such as aerospace, defense, maritime, and autonomous systems.

2025 – 2032 Mobility Sector CAGR – U.S.

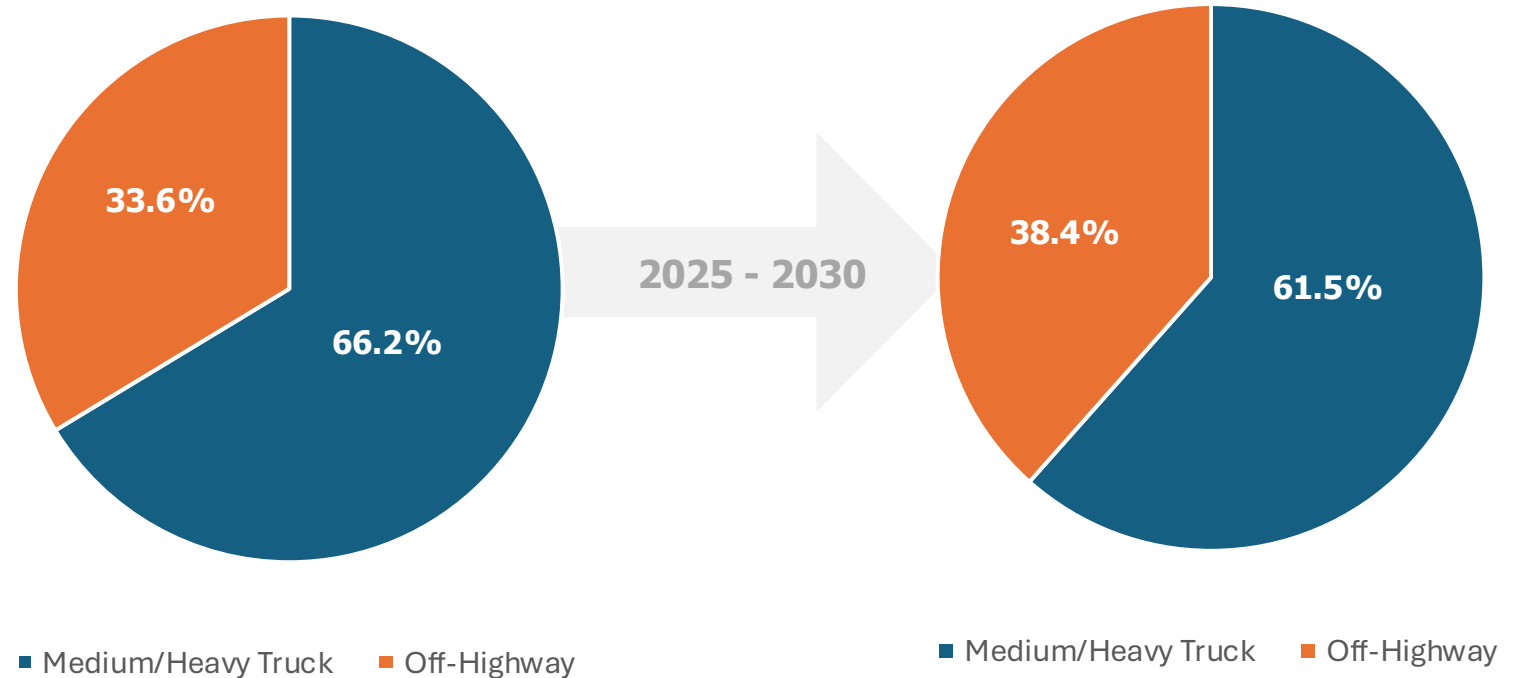


Source: Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research

U.S. Non-LV Sector ADAS Share Forecast

The Medium/Heavy Truck and Off-Highway sectors dominate U.S. ADAS applications in the non-light vehicle mobility sectors, with a combined share of 99.8% in 2025 and 99.9% in 2030.

Off-Highway applications are forecast to increase from 33.6% in 2025 to 38.4% in 2030, resulting in Off-Highway applications accounting for 61.5% of U.S. non-light vehicle ADAS applications in 2030.



Source *Wipfli Analysis, AutoForecastSolutions (AFS), Grandview Research, Fortune Business Insights, Credence Research*



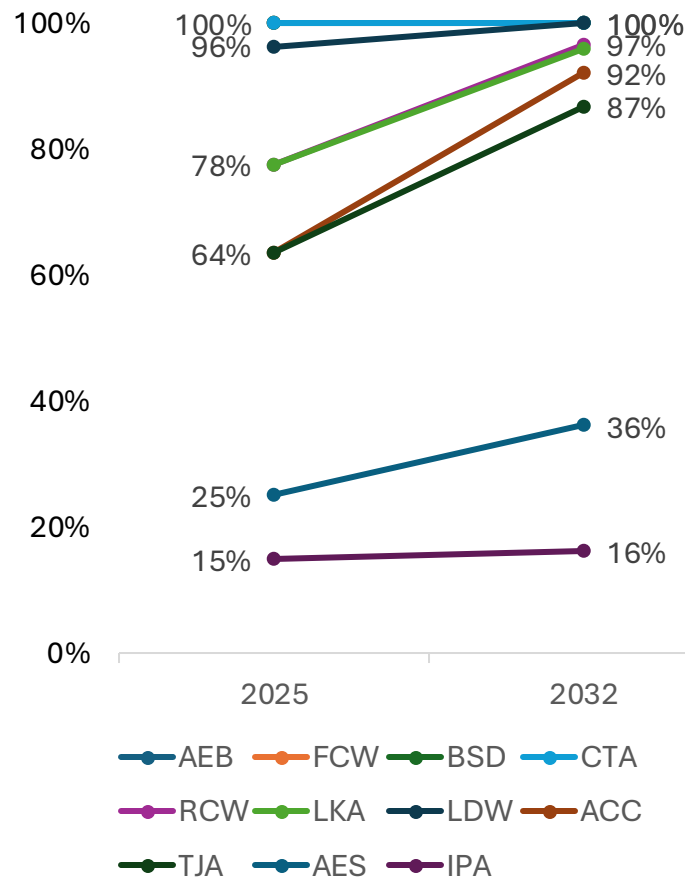
DETROIT REGION PERSPECTIVE

ADAS Adoption Rate Comparison – Detroit Region

The Detroit Region leads total United States in adoption rates of critical ADAS technologies, including automatic emergency braking, forward collision warning, blind spot detection, and cross traffic alert. This trend is driven by the higher content, increased complexity, and segment profile of the vehicles built in the Detroit Region.

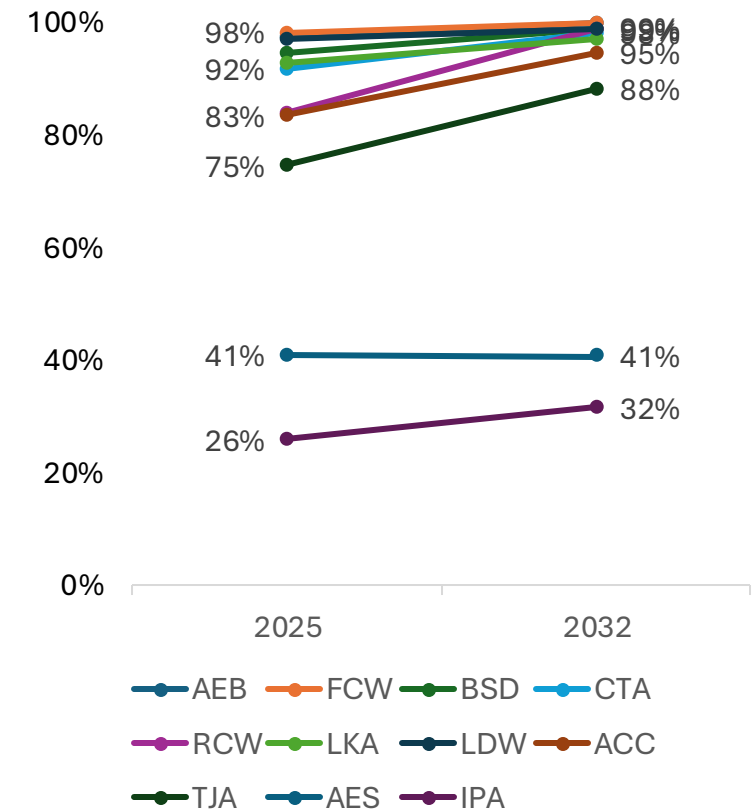
While all of these applications are forecast to experience significant growth through 2032, Adaptive Cruise Control and Traffic Jam Assist systems are expected to experience the most-rapid growth in Detroit Region-produced vehicle applications.

Detroit Region ADAS Technology Adoption Rates



Source: North America ADAS Market Study, Wipfli

United States (sans Detroit Region) ADAS Technology Adoption Rates



Source: North America ADAS Market Study, Wipfli

- Key strengths of the Detroit Region include:
 - Having the world's densest automotive engineering ecosystem
 - (DENSO, ZF, Bosch, Continental, Magna, etc.)
 - Extensive ADAS R&D, calibration, and software hubs.
 - Nation's leading autonomous testing infrastructure (ACM, Mcity).
 - The region has strong alignment with:
 - Defense mobility
 - Advanced aerial mobility (Michigan AAM initiative)
 - Great Lakes maritime
 - Off-road/industrial automation
- The Detroit region's supplier base has a cross-sector advantage and can repurpose automotive ADAS capabilities into:
 - Drones & eVTOL
 - Off-highway construction & mining
 - Maritime autonomy
 - Warehouse/logistics robotics
 - Defense unmanned systems
- These factors position the Detroit Region as a multi-modal autonomy hub, not just automotive-focused.



Detroit Region Strategic ADAS Priorities to Lead the Next Wave of Mobility

- Detroit is strategically positioned to lead in ADAS technologies across automotive and adjacent industries.
 - Shifts from hardware toward software-defined mobility create long-term economic development opportunities.
 - Federal mandates and safety regulations will drive significant near-term investment in ADAS technologies.
 - Cross-sector convergence (aerospace, maritime, off-highway) allows DRP to attract mobility companies beyond automotive.
 - High-growth areas for regional business development include:
 - AI & perception software
 - Sensor fusion & testing
 - Drone / UAS manufacturing & operations
 - Off-highway automation
 - Maritime autonomy R&D
 - Cybersecurity and OTA infrastructure
- 1. Recruitment Targeting:**
 - AI perception firms, sensor manufacturers, drone/eVTOL companies, defense autonomy contractors.
 - 2. Sector Expansion:**
 - Promote Detroit's ADAS ecosystem to adjacent markets (construction, mining, maritime, aviation).
 - 3. Accelerator Opportunities:**
 - Support startups specializing in autonomy software, simulation, and mobility cybersecurity.
 - 4. Workforce Development:**
 - Strengthen pipelines in machine learning, robotics, embedded systems, automotive cybersecurity.
 - 5. Policy & Infrastructure:**
 - Expand dedicated testbeds and air/maritime autonomy corridors in the Detroit Region.



EMPLOYMENT ANALYSIS

This analysis uses job ratios identified in *Opportunity AV: How Many and What Type of Jobs Will be Created by Autonomous Vehicles?* by the Chamber of Progress.

The job ratios in each sector are for development and production only.

The ratios were applied to the mobility sector volume forecasts and job numbers are estimates based on the ratios listed.

Sector	Jobs Per Vehicle
Light Vehicle	0.19
Medium/Heavy Truck	0.19
Off-Highway	0.19
First/Last-Mile Delivery	0.19
Aerospace	0.25
Maritime	0.30

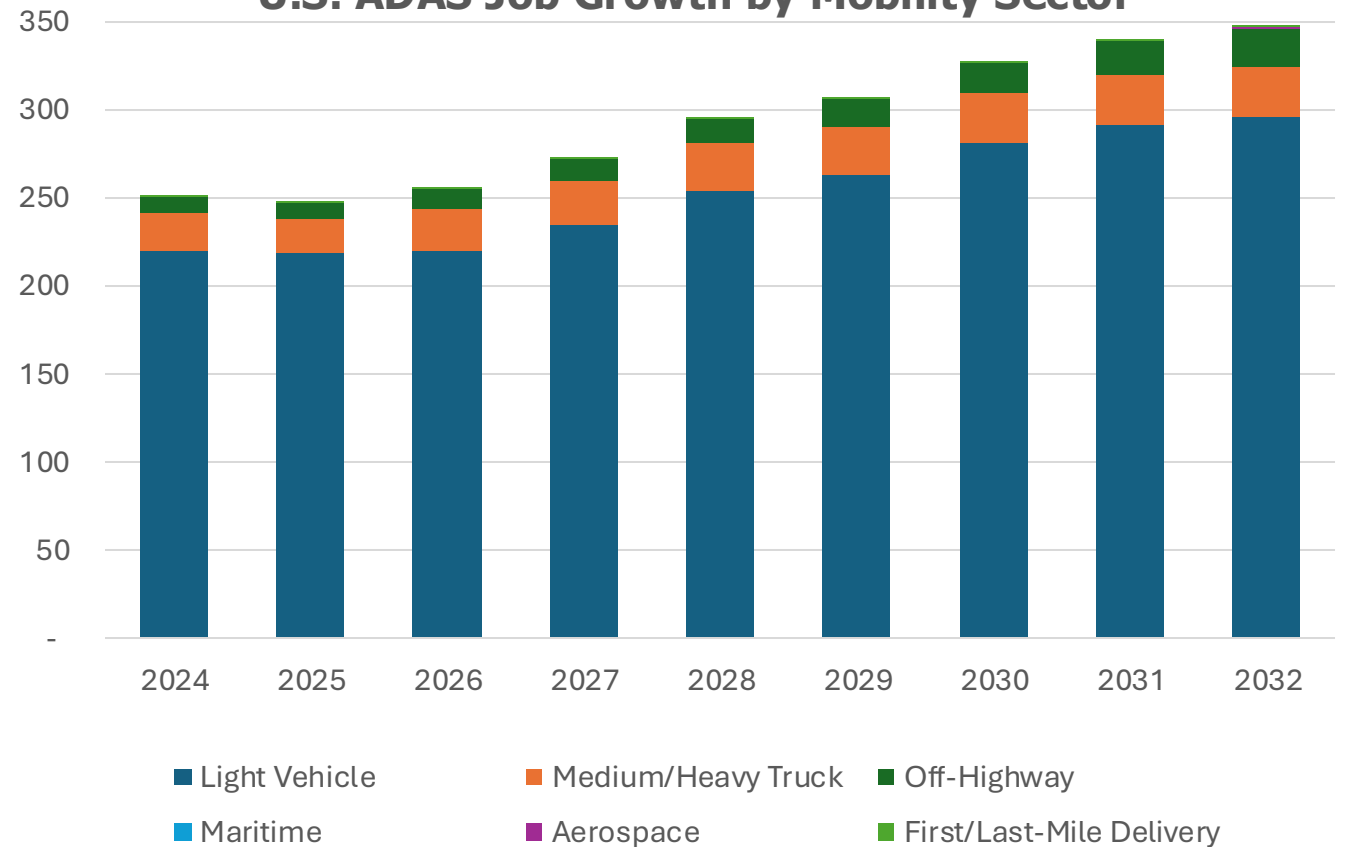
By 2032, the number of U.S. ADAS-related jobs is estimated to grow to nearly 350,000 across all mobility sectors.

Light Vehicle applications are forecast to dominate ADAS-related jobs growth, reaching a level of nearly 296,000 by 2032.

The Compound Annual Growth Rate (CAGR) for each sector is:

- Light Vehicle: 4.5%
- Medium/Heavy Truck: 5.8%
- Off-Highway: 11.7%
- Maritime: 11.8%
- Aerospace: 28.3%
- First/Last Mile: 12.3%

U.S. ADAS Job Growth by Mobility Sector

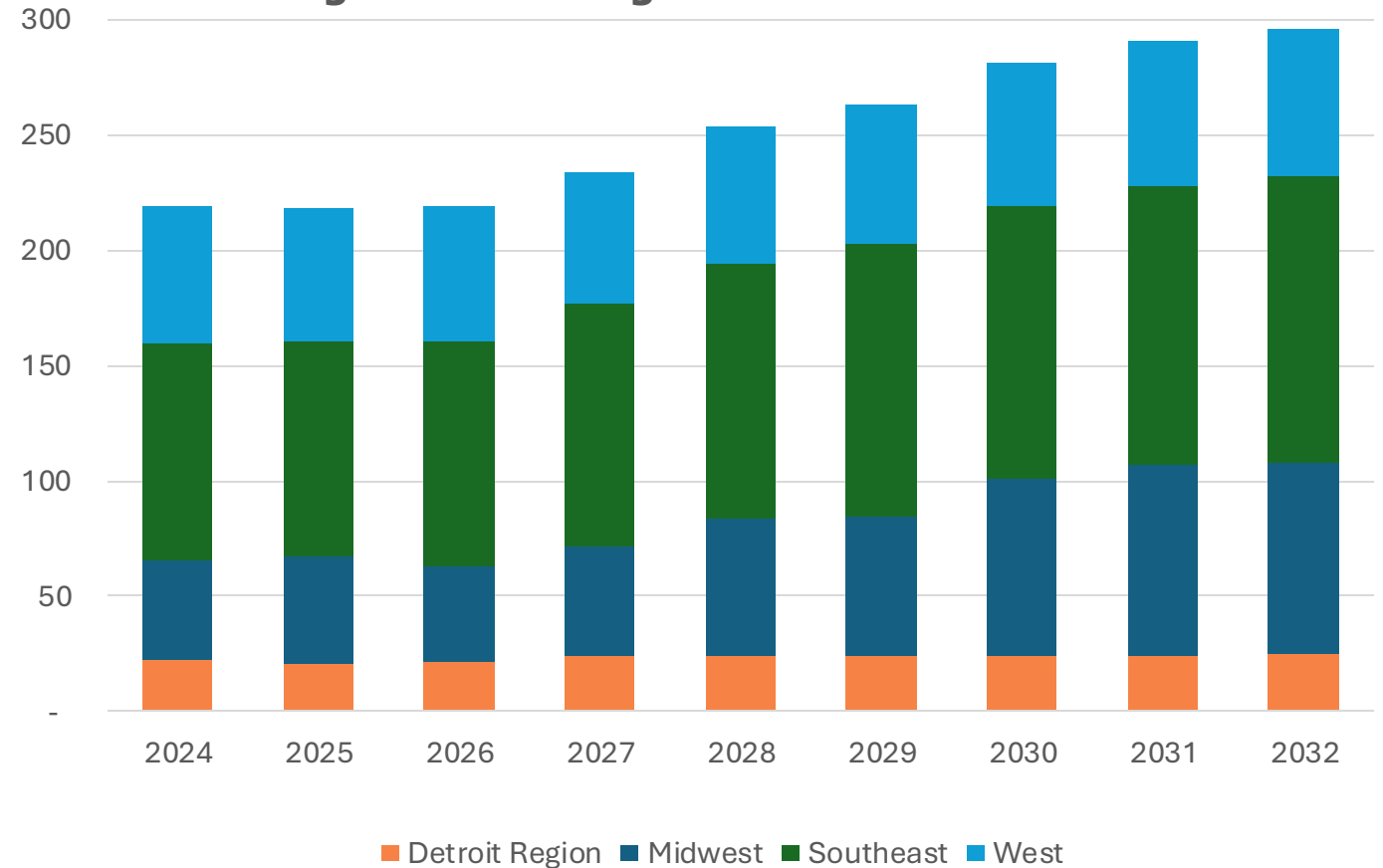


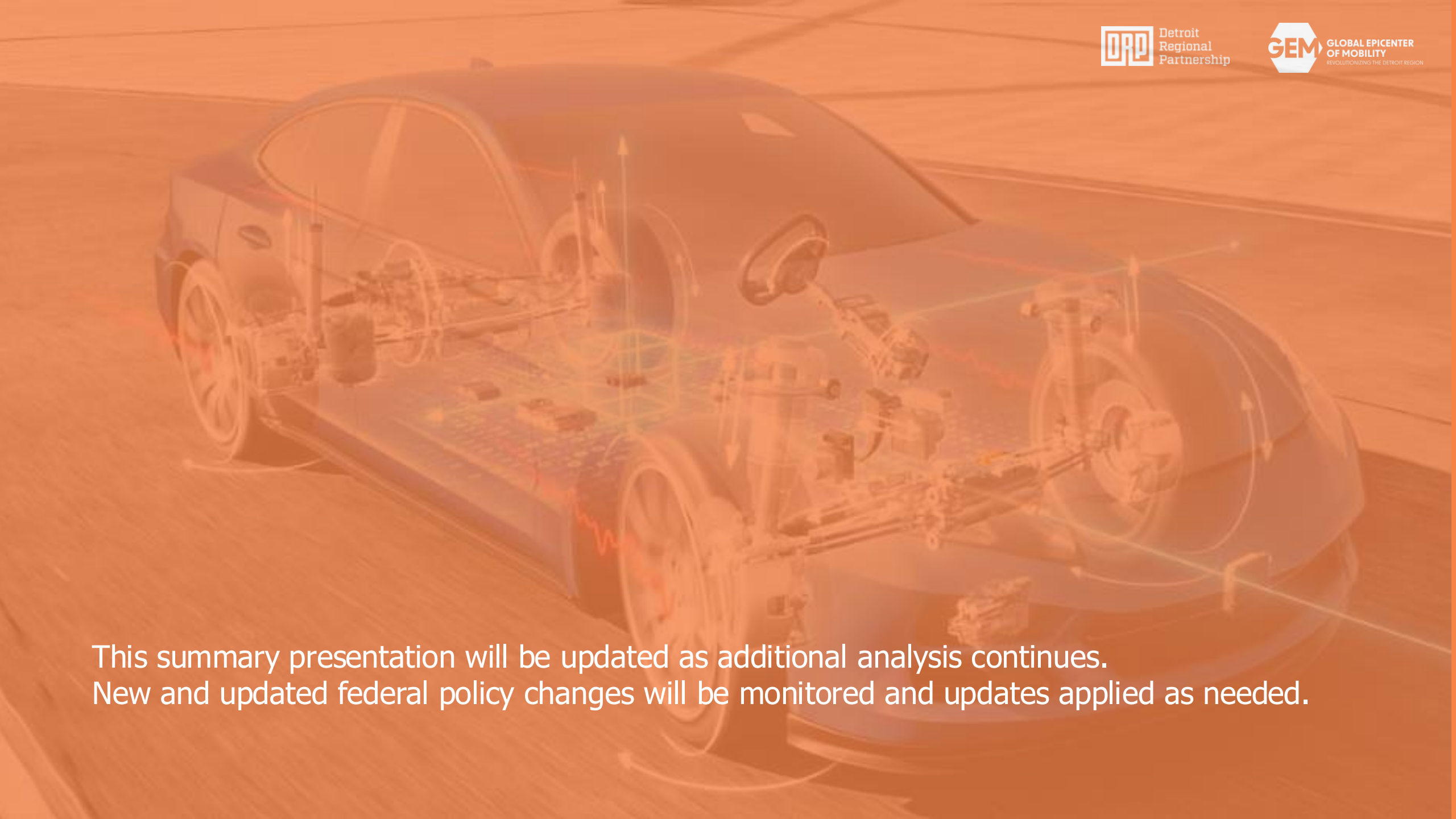
Source: Chamber of Progress, Wipfli Analysis

By 2032, the number of ADAS-related jobs in the Detroit Region is estimated to reach nearly 25,000 in just the Light Vehicle sector. This represents 8.4% of total United States Light Vehicle ADAS-related jobs.

Since this analysis focuses solely on development and production occupations, the total employment impact of ADAS technologies' job growth will be significantly greater when accounting for component-specific roles and employment across related industries and support functions.

Light Vehicle Regional ADAS Job Growth





This summary presentation will be updated as additional analysis continues.
New and updated federal policy changes will be monitored and updates applied as needed.