

Greater Phoenix Autonomous & Electric Vehicles Ecosystem

MARCH 2025

MARCH 2023

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Driving the Future in Greater Phoenix

Cutting-edge autonomous & electric vehicle research and development

Autonomous and electric vehicles are changing the world we live in, and Greater Phoenix is leading the way in supporting the development and testing of this transformative technology. Enabling programs and policies have made Arizona a top destination for autonomous vehicle (AV) testing and electric vehicle (EV) development, with the robust supply chain and electronics cluster in Greater Phoenix.

Though relatively young, Greater Phoenix has a long history of automotive research and development, as major automakers have operated proving ground facilities in the state for decades. In addition to the longstanding automotive ecosystem, high-tech manufacturers like Intel and onsemi have also long had a presence in Greater Phoenix, where they support the EV and AV industries with the production of essential computer chips. The region came of age in the era of the automobile, meaning that it has modern, high-quality infrastructure, a gridded street system, wide roads and lower levels of traffic.

Thanks to substantial growth, infrastructure investment and history of high-tech innovation, Greater Phoenix has established itself as a hub for the supplying and development of the next generation of and vehicles. That's why innovators like LG Energy Solution, Lucid, and Waymo are thriving in Greater Phoenix.

Here are just a few reasons why top AV & EV companies choose Greater Phoenix:

- Supporting state and local policies for autonomous vehicle testing
- Longstanding automotive R&D ecosystem that includes many of the world's leading automakers
- Robust existing supply chain

- A large and growing workforce with easier hiring than peer markets
- A strong education pipeline developing workers with vital skills
- Competitive operating cost and tax environment with a variety of incentives available

Value Proposition



Quality of Life	Infrastructure	Supply Chain	Regulatory Environment	Competitive Operating Costs
 Shorter commute times than many peer markets Fewer days with significant weather interruptions More than 300 days of sunshine annually 	 Gridded road system allows for a better testing environment Continued investment in street infrastructure Warm temperatures eliminate freeze and thaw potholes 	 Robust ecosystem with significant presence from advanced technology companies Longstanding automotive R&D infrastructure with many major automakers 	 Pro-business regulatory environment encourages autonomous vehicle development Limited reporting and permitting means more time testing on the roads 	 Lower annual operating costs than other competitors Cheaper real estate and benefit costs compared to peer markets A variety of quality incentives to further decrease operating costs

Industrial Leaders

Global companies in Greater Phoenix

The electrification of vehicles is centered around the research, production and manufacturing of electric and autonomous vehicles, batteries manufacturing and battery storage. Greater Phoenix is home to three renowned global leaders in these spaces.

🕒 LG Energy Solution

In March 2023, LG Energy Solution (LGES) announced its \$5.5 billion battery manufacturing complex in Queen Creek, Ariz., consisting of two facilities totaling more than 1 million square feet:

Cylindrical battery manufacturing facility

• This facility will produce 46-Series batteries for electric vehicles, offering as much as 16x longer driving range than the previous version.



Lithium iron phosphate (LFP) pouch-type battery facility

• This will be one of the first energy storage systems (ESS)-exclusive battery production facilities in the world.





Lucid Motors' manufacturing plant in Casa Grande, Ariz., which employs about 2,500 people, produces the Lucid Air and luxury SUV Lucid Gravity. Its Phase 2 expansion will increase facility size to nearly 4 million sq. ft.

 In 2025, Lucid expanded its footprint by over 884,000 square feet with the purchase of Nikola's Coolidge manufacturing facility and Phoenix product development center.





Waymo launched the country's first fully autonomous ride hailing service, Waymo One, in 2018.

- The ride share service has now traveled over 40 million miles since launch and has ten of thousands of active riders.
- With 1,500 vehicles currently in operation, Waymo plans on expanding its fleet with an additional 2,000 vehicles by 2026.

Notable Electric Vehicle Suppliers

Industry-leading EV firms and suppliers have established critical operations in Greater Phoenix to support local companies and in leveraging the region's excellent transportation network to send its products throughout the world. Regardless the operation type, Greater Phoenix has demonstrated that it has the ecosystem to support electric vehicle companies and their suppliers.



Exro Technologies

 Headquartered in Mesa, Exro Technologies' Vehicle Systems unit is a full-service engineering service that provides clients the design, development, integration, and verification of electrified power systems for electric vehicles.



Infineon

- With three locations in Greater Phoenix, Infineon supplies semiconductors and other microelectronics to EV manufacturers.
- Infineon also supplies battery charging solutions to light electric vehicles such as e-bikes, scooters, and small cars.

Magna



 In 2024, Magna announced the construction of a 230,000-squarefoot manufacturing facility in Mesa that will assemble fully autonomous equipment onto Waymo's specialized electric Jaguar SUVs. At full build-out, tens of thousands AV vehicles will be built at this facility each year.



Microchip

- Microchip manufacturers connective electronic infrastructure related parts and supplies parts and electronics for EV charging stations.
- In 2025, the company announced a comprehensive two-wheel electronic ecosystem for e-bikes and e-scooters.

onsemi

onsemi

- Headquartered in Scottsdale, onsemi provides parts and electronics for the electrification of powertrain and vehicle auxiliary systems.
- In 2024, onsemi became the primary power box supplier for Volkswagen vehicles.

Battery Supply Chain

olutions

In addition to automobile manufacturers, Greater Phoenix is home to a growing network of companies innovating in the battery manufacturing and recycling industry. Cirba Solutions and Li-Cycle already operate in the region and several others including Ecobat and E-Z-GO have commitments to build or expand their footprints locally.

Cirba Solutions

- Cirba Solutions' 60,000-square-foot southwest center in Mesa provides customer support for battery recycling.
- Heritage Battery Recycling, an affiliate of Cirba Solutions, also operates a battery recycling facility in Eloy that employs at least 150 jobs.
- Cirba Solutions has a partnership with Toyota to extract 95% of critical materials from the 25,000 used EV and combustion vehicle batteries that Toyota receives.

Ecobat



- Ecobat's 64,000 square feet battery recycling facility in Casa Grade is expected to produce 10,000 estimated tons of recycled material per year.
- The Casa Grande facility will establish connections with battery, automotive, and other e-waste companies to ensure a steady supply of batteries to recycle.



Li-Cycle

- Li-Cycle's third North America lithium-ion battery processing/recycling center, the Arizona Spoke, is a 140,000-square-feet facility that employs 40 people.
- The center has the capability of processing up to 10,000 metric tons of spent batteries and battery manufacturing scrap annually.

Notable Electric Vehicle Manufacturers

Industry-leading EV firms and EV supply chain companies have established critical operations in Greater Phoenix to support local companies and in leveraging the region's excellent transportation network to send products around the world. Regardless the operation type, Greater Phoenix has demonstrated that it has the ecosystem to support electric vehicle companies and its suppliers, big and small.



Battle Approved Motors

- Arizona-based early-stage startup Battle Approved Motors (BAM) is a high-end utility terrain vehicle (UTV) manufacturer that designs and builds all-electric UTVs.
- In 2022, BAM raised over \$1.2 million in funding.



E-Z-GO

- E-Z-GO, a n electric golf cart manufacturer and distributor, is planning on opening a new distribution operation. Once completed, this new facility in Casa Grande is expected to employ 10 fulltime distribution roles.
- The company also manufacturers custom batteries for models of its electric golf carts.

Terraline

TERRALINE

- Terraline, an autonomous and electric vehicle truck company, announced in 2024 it will establish an engineering headquarters in Greater Phoenix.
- Its advanced battery-electric long-haul trucks will be designed to seamlessly switch between autonomous and human drivers.



Autonomous R&D in Greater Phoenix

Arizona is a leading state for cutting-edge research and development of autonomous vehicles. Listed below are firms developing or testing autonomous technologies in Greater Phoenix.

Gatik



- Gatik's autonomous vehicle technology is focused on solving the middle- and last-mile dilemmas for freight transportation through advancements in safety and efficiency. In 2025, Gatik joined NVIDIA's autonomous vehicle partnership ecosystem.
- The Toronto-based company is actively testing AV technology throughout Arizona and employs local operations and safety testing personnel.

nuro

Nuro

- Nuro's tele-operations team in Tempe, focuses on supporting its autonomous vehicle operations in Houston, Texas and Mountain View and Palo Alto, Calif.
- The company is developing tech for automated passenger vehicles, personally owned vehicles and logistics services.

Synopsys

SYNOPSYS°

- Synopsys' microelectronics platform enables automotive hardware to collaborate with software to increase safety and reliability of autonomous vehicle technology.
- Synopsys, which has an office in Gilbert, is collaborating with NVIDIA to accelerate electronic design automation (EDA) workloads to improve runtime for workflows including circuit simulation, computational lithography, Technology Computer-Aided Design (TCAD), physical verification and materials engineering.

Industry Ecosystem

Additional Industry Highlights

In addition to the companies highlighted in the previous slides, there are a variety of related manufacturers and suppliers supporting the autonomous & electric vehicle industry. The companies below are a sample of the firms currently operating in the region.



Proving Grounds

Arizona is a leading state for cutting-edge research and development in the automotive industry. The map below shows the locations of automotive proving grounds throughout Arizona.





Proving Grounds

Arizona is a leading state for cutting-edge research and development in the automotive industry. The list below highlights automotive proving grounds throughout Arizona.

Ford Arizona Proving Grounds



- Wittman, Ariz.
- The site is used for testing both traditional and electric cars.
- Testing includes vehicle performance, heat management, and noise/vibration/harshness.



Nissan Technical Center North America - Arizona Testing Center

- Stanfield, Ariz.
- It can be used for hot- and cold-weather simulation and various tests for turns, elevation changes, high speed, crash, powertrain and durability.
- Nissan's Aryia electric vehicle was recently implemented as a security and training vehicle at the facility.

Toyota Arizona Proving Ground

- Wittman, Ariz.
- Toyota added the Arizona Mobility Test Center (AMTC), which includes creation of a new area for long-term tenants and construction of added amenities for developing and testing vehicle performance.
- This facility now can be used for AV and EV testing.



Volkswagen Arizona Proving Grounds

- Maricopa, Ariz.
- Over the past three decades, this site has primarily served as a hotweather and corrosion testing site of new cars.
- During the summer of 2020, Volkswagen added charging stations at this site that allows the automaker to conduct high-temperature charging testing

Regulatory Environment

Autonomous Vehicles Policy And Programs

Self-Driving Vehicle Testing and Piloting Executive Order

In September 2015, former Ariz. Gov. Doug Ducey signed an executive order aimed at reducing barriers for companies trying to test autonomous vehicles in the state. The executive order did the following:

- Instructed the Department of Transportation, Department of Public Safety and other agencies to support the testing of self-driving vehicles in Arizona
- Authorized pilot programs at selected universities through which licensed drivers can operate vehicles remotely while on campus
- Established a Self-Driving Vehicle Oversight Committee to advise the Department of Transportation, the Department of Public Safety, select universities, and other agencies on how to advance the testing and operation of self-driving vehicles

Advancing Autonomous Vehicle Testing And Operating; Prioritizing Public Safety

In March 2018, Gov. Ducey updated the executive order signed in 2015. This executive order was codified into state law which did the following:

- Allowed for driverless testing of autonomous vehicles in Arizona and described safety standards that companies must meet to test driverless vehicles in the state
- Instructed the Arizona Department of Public Safety to issue a law enforcement interaction guide in conjunction with companies testing autonomous vehicles
- Creates a protocol under which autonomous vehicle operators must notify the state of the commencement of their driverless testing activities

Neighborhood Occupantless Electric Vehicles (NOEVs)

In 2022, Senate Bill 1333 was passed to regulate smaller, self-driving, no-human-occupant electric delivery vehicles meant to deliver goods to households on local roads

• This bill includes safety regulations and operational restrictions relating to the usage of these vehicles

Federal & Local Programs

Maricopa County Department of Transportation Connected Vehicles Programs

MCDOT SMARTDrive ProgramSM

Arizona's Connected Vehicle Program was initiated in 2007 by Maricopa County Department of Transportation (MCDOT), the Arizona Department of Transportation (ADOT) and the University of Arizona (U of A). The goal was to identify how new technology applications could enhance traffic signal operations, incident management and traveler information.

MCDOT developed the concept of vehicle prioritization and used this concept to develop the MCDOT SMARTDrive ProgramSM, which simultaneously communicates with multiple emergency vehicles arriving at the same intersection and relates back which vehicle has the right-of-way.

In 2024, 600 After Market Safety Devices (ASDs) were deployed and installed on government and commercial fleet vehicles. This allowed the program to further research and enhance traffic signal operations and incident management. If ASD deployment is successful, the trial run could be expanded into volunteer private vehicles.

Anthem Test Bed

MCDOT constructed a test bed in Anthem, Ariz. to test the MCDOT SMARTDrive ProgramSM's vehicle prioritization technology in 2011. It was one of the first seven test beds in the country.

The AZ Connected Vehicle program has expanded its testing to include a pedestrian traffic signal crosswalk application, transit priority application and a trucking priority application, with plans to test "real-world" scenarios where residents and businesses can participate.

Source: Maricopa County Department of Transportation. Image: Anthem News



Federal & Local Programs

Additional Autonomous & Electric Vehicle Related Programs

Connected Vehicle Acceleration Zone

During the Biden Administration, the Department of Transportation (USDOT) awarded the Maricopa County Department of Transportation (MCDOT) with a \$19.6 million grant to study vehicle-to-everything technology (V2X). Maricopa County will use the funding to help develop connected communications between emergency vehicles and other vehicles on the road to alert them of road hazards or an approaching emergency vehicles. This newly developed V2X technology will be deployed to areas of Phoenix, Tolleson, Avondale, and unincorporated Maricopa County.

Electric Vehicle Charging Funding

The National Electric Infrastructure (NEVI) Formula Program committed \$76.5 million in funding to enhance Arizona's electric charging network by deploying 69 publicly accessible EV charging stations along highways. Construction on stations with initial approval is slated to begin in late 2025.

In early 2024, as part of the Bipartisan Infrastructure Law's (BIL) Charging and Fueling (CFI) Grant Program, Mesa was awarded \$11.8 million to grow its EV charging network. With the funding, Mesa will install neighborhood charging around its downtown center, fast charging along the U.S. 60, and fleet charging in east and west Mesa.

In late 2024, the Federal Highway Administration (FHA) awarded a \$15 million grant to the Maricopa County Air Quality Department (MCAQD) to support Maricopa County's Electric Vehicle Infrastructure Improvement Program. The funding from this grant will help build additional electric vehicle charging stations across Maricopa County along with the development of an educational outreach program.

Arizona Institute of Automated Mobility

The Institute of Automated Mobility is a public-private collaboration between the state of Arizona, the three public universities, and industry leaders like Intel, NXP and Cox Automotive. This united effort is set forth on advocating for the testing and deployment of safe and reliable self-driving vehicles on public roads. Its strategic roadmap aims to set a national standard in a safe and scalable transition to automated driving technology.

Drive Arizona

Through the Arizona Institute of Automated Mobility, the Drive Arizona program is a partnership with the Arizona Commerce Authority, Maricopa County Department of Transportation (MCDOT), City of Phoenix, and Arizona Department of Transportation (ADOT). It is focused on improving road safety through vehicle-to-everything technology (V2X). It ran from September 2023 through March 2025 and tested V2X tech across 60 miles of road in Maricopa County with the goal of reducing traffic and improving sustainability and safety.

Greater Phoenix Talent Pipeline

Below are total numbers of non-distance program completions at colleges and universities in Greater Phoenix with degree programs relevant to the development of autonomous & electric vehicles. The region produced almost 5,400 graduates in these fields during the 2022-23 school year. The region's universities are committed to supplying the workforce needed to enable companies to scale in the region. Comparison data for peer markets has been provided below.

Certificates	Associate	Bachelor	Master	Doctor
1,316	279	1,899	1,697	117

Competitor Markets' Talent Pipeline



FIDENIX AUSTI

Notable Programs in Autonomous & Electric Vehicle-Related Fields

Arizona State University



- Arizona State University (ASU) is committed to partnering with corporate, education and government organizations to produce a skilled engineering workforce. ASU has the largest engineering school in the nation, with over 31,000 students enrolled.
- Computer engineering; Data science; Software engineering
- Electrical engineering; Manufacturing engineering; Mechanical engineering; Robotics and autonomous systems engineering
- The Make Programming Simple Lab researches accelerating the design and reliability of intelligent transportation systems
- The Battery Electric & Intelligent Vehicle Lab is a multidisciplinary research program focused on development in clean and energy efficient transport.

THE UNIVERSITY OF ARIZONA

The University of Arizona

The University of Arizona (U of A) is committed to partnering with government and corporations to train job-ready students.

- Artificial intelligence laboratory
- Electrical and computer engineering
- Materials science and engineering
- Systems and industrial engineering



Grand Canyon University

Grand Canyon University (GCU) is a private Christian university committed to training the next generation of working professionals.

- Computer engineering; Computer science
- Data science
- Electrical engineering; Engineering; Mechanical engineering
- Software development; Software engineering

Notable Programs In Autonomous & Electric Vehicle-Related Fields



Central Arizona College

Central Arizona College's Electric Vehicle Fundamentals course is designed to help students grow their automotive assembly and electric vehicle production skills. By course completion, students will be knowledgeable in the following areas:

- EV production introduction
- Best practices in automotive assembly, safety and quality
- Battery and electrical components



Drive48

Located at Central Arizona College in Coolidge, Drive48 is a 13,000 squarefoot advanced manufacturing training center that features several training rooms, including a main room with assembly robots to train workers to work in automotive manufacturing. New Lucid hires receive instruction at the school to prepare them for their roles with the company. Since 2021, this facility has trained over 2,000 Lucid employees. Programs include:

- Advanced manufacturing
- Automotive
- General industry
- Heavy equipment



Future48 Workforce Accelerator

Created as a partnership between the Arizona Commerce Authority and community colleges throughout Arizona, the Future48 workforce accelerator offers training for in-demand industries. In April 2025 a new partnership was announced between Pinal County, Central Arizona College, and LG Energy Solution with a focus specifically on the battery industry.

 The new workforce training program focused on the manufacturing process of cylindrical batteries will be located at Central Arizona's College's Superstition Mountain Campus in Apache Junction

Notable Programs In Autonomous & Electric Vehicle-Related Fields

Legacy EV Academy



Located in Gilbert, Legacy EV is a company focused on the manufacturing and conversion of custom vehicles. Through its Legacy EV Academy, it offers students an e-learning ecosystem that includes modules, quizzes, networking and opportunities for career advancement. The following are modules available within the platform:

- EV Tech Foundations Curriculum and Lab
- Intro to E-Mobility Curriculum and Lab
- EV Build Fundamentals Curriculum and Lab

Maricopa Community Colleges

The largest community college district in the United States, the Maricopa Community College District (MCCCD) operates 10 colleges throughout Greater Phoenix.

- Artificial intelligence and machine learning
- Computer applications technology
- Computer information systems
- Computer programming

ReadyTechGo



Created as a partnership between the State of Arizona and Arizona's network of community colleges, ReadyTechGo's academic programs prepare students for careers in automated industrial technology. With partners like Lucid and LG Energy Solutions, students can easily apply their learned skills n the workforce. Below are some industries the program specializes in:

- Aerospace
- Robotics
- Energy Storage
- Semiconductors
- Electric Vehicles





Arizona Advanced Manufacturing Institute

Located at Mesa Community College, the Arizona Advanced Manufacturing Institute (AzAMI) offers industry certifications, stackable credentials that are competency-based with degree and certificate programs, flexible models of delivery, and portable labs for on-site training to ensure the region has the necessary pipeline of talent for present and future companies. By partnering with leaders in the manufacturing sector, AzAMI can ensure programs meet the needs of the industry.

Program & Career Options

- Automation & Robotics Technology
- Drafting and Design Technology
- Electronics Engineering Technology
- Electronics Technology
- Manufacturing Technology

- Electromechanical Automation
 Technology
- Industrial Technology
- Mechanical Drafting
- Welding Technology

Partnerships









Labor Analysis

Labor Pool

The table below shows employment for the following occupations in the selected metros.

Occupation	Phoenix	Austin	Dallas- Fort Worth	Detroit	Reno	San Jose
General and Operations Managers	70,211	45,674	135,941	38,800	8,500	19,262
Software Developers	29,353	27,203	60,632	24,299	1,244	89,683
Miscellaneous Assemblers and Fabricators	17,050	7,144	37,089	61,147	6,255	6,486
Industrial Truck and Tractor Operators	13,660	4,272	34,132	12,126	1,605	2,167
Automotive Service Technicians and Mechanics	12,080	5,144	18,478	8,456	1,434	2,434
Inspectors, Testers, Sorters, Samplers, and Weighers	7,161	3,716	15,450	12,468	1,290	5,057
First-Line Supervisors of Production and Operating Workers	6,289	3,806	17,390	11,310	1,815	2,835
Industrial Engineers	5,458	2,324	8,070	14,706	535	3,595
Welders, Cutters, Solderers, and Brazers	4,725	2,463	11,747	5,579	539	1,397
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	4,408	2,599	6,823	4,179	670	8,374
Machinists	4,045	1,082	4,364	10,059	370	1,772
Electrical Engineers	3,097	2,646	4,660	5,895	377	6,408
Software Quality Assurance Analysts and Testers	2,880	3,674	9,343	1,905	187	7,835
Industrial Production Managers	2,398	1,374	5,491	6,512	435	2,305
Computer Hardware Engineers	1,903	1,024	1,216	1,231	31	10,460
Computer Numerically Controlled Tool Operators	1,327	950	3,491	3,065	162	1,636
HelpersProduction Workers	1,011	1,529	7,187	1,752	393	959
Structural Metal Fabricators and Fitters	525	285	1,714	749	81	117
Commercial and Industrial Designers	252	168	360	1,103	36	222
Total	187,831	117,079	383,578	225,340	25,961	173,004

Labor Analysis

Labor Costs

Greater Phoenix has a robust supply of human capital at an affordable cost. Below is a table of median wages across peer markets for autonomous & electric vehicles occupations.

Occupation	Phoenix	Austin	Dallas- Fort Worth	Detroit	Reno	San Jose
General and Operations Managers	\$94,282	\$102,967	\$102,071	\$102,627	\$100,059	\$166,800
Software Developers	\$126,017	\$131,633	\$129,603	\$108,057	\$126,921	\$199,153
Miscellaneous Assemblers and Fabricators	\$40,526	\$35,929	\$36,839	\$41,351	\$40,811	\$49,018
Industrial Truck and Tractor Operators	\$45,437	\$43,620	\$43,864	\$45,812	\$49,124	\$48,439
Automotive Service Technicians and Mechanics	\$50,281	\$48,568	\$48,863	\$49,254	\$49,357	\$74,774
Inspectors, Testers, Sorters, Samplers, and Weighers	\$48,700	\$44,232	\$42,339	\$41,721	\$51,622	\$55,869
First-Line Supervisors of Production and Operating Workers	\$66,990	\$61,921	\$61,921	\$67,025	\$56,880	\$84,429
Industrial Engineers	\$103,039	\$99,906	\$102,207	\$101,423	\$110,376	\$132,765
Welders, Cutters, Solderers, and Brazers	\$48,587	\$50,087	\$48,188	\$47,110	\$53,916	\$62,900
Electrical, Electronic, and Electromechanical Assemblers, Except Coil Winders, Tapers, and Finishers	\$45,792	\$38,921	\$39,036	\$41,356	\$36,095	\$49,052
Machinists	\$51,772	\$49,227	\$53,283	\$49,704	\$49,351	\$69,076
Electrical Engineers	\$104,440	\$107,193	\$97,206	\$100,643	\$97,493	\$206,317
Software Quality Assurance Analysts and Testers	\$98,697	\$101,907	\$101,863	\$92,560	\$82,067	\$164,210
Industrial Production Managers	\$125,740	\$125,171	\$120,528	\$119,904	\$116,891	\$165,359
Computer Hardware Engineers	\$142,969	\$128,520	\$110,195	\$124,743	\$101,562	\$179,089
Computer Numerically Controlled Tool Operators	\$47,317	\$48,690	\$47,597	\$46,938	\$49,188	\$58,510
HelpersProduction Workers	\$37,097	\$36,414	\$35,185	\$38,300	\$46,982	\$44,789
Structural Metal Fabricators and Fitters	\$47,050	\$46,795	\$48,048	\$52,025	\$47,178	\$66,799
Commercial and Industrial Designers	\$79,661	\$88,265	\$82,744	\$76,465	\$70,540	\$135,406

Source: Lightcast 2025 Q1 Dataset

The Annual Business Operating Cost Analysis has been prepared using the following parameters as an estimate for autonomous & electric vehicle research and development operations in competitor markets. Component and custom analyses to match your company's operations can be provided upon request.

Assumptions - R&D

- \$5,000,000 personal property investment
- 50,000-square-foot High Tech, Lease
- Utilities (per month):
 - Electricity: 75KW, 30,000KWh
 - Water/Wastewater: 3,000cf, 5/8 meter
- 100 jobs (Bureau of Labor Statistics equivalent occupations)

Occupations	Employment
Software Developers, Systems Software	35
Mechanical Engineer	15
Computer Hardware Engineers	14
Electrical Engineers	10
Computer Programmers	10
Computer Systems Analysts	10
Electrical and Electronics Engineering Tech	5
General and Operations Managers	1
Total	100

Annual Operating Cost - R&D

Metro	Payroll	Benefits	Utilities	Real Estate	Property Tax	Total Operating Cost	Index
Phoenix	\$11,368,022	\$1,825,472	\$45,476	\$834,000	\$2,259	\$14,075,228	100.0%
Austin	\$13,175,047	\$2,113,418	\$43,024	\$816,500	\$90,462	\$16,238,452	115.4%
Dallas- Fort Worth	\$12,704,171	\$2,038,986	\$52,113	\$695,000	\$114,739	\$15,605,009	110.9%
Detroit	\$11,783,422	\$1,908,298	\$51,121	\$547,500	\$0	\$14,290,941	101.5%
Reno	\$11,690,150	\$1,976,017	\$48,855	\$714,000	\$63,865	\$14,492,886	103.0%
San Jose	\$16,136,026	\$3,064,841	\$107,512	\$1,782,000	\$60,550	\$21,150,928	150.3%

Total Operating Cost by Metro



The Annual Business Operating Cost Analysis has been prepared using the following parameters as an estimate for autonomous & electric vehicle manufacturing operations in competitor markets. Component and custom analyses to match your company's operations can be provided upon request.

Assumptions - Manufacturing

- \$125,000,000 personal property investment
- 500,000-square-foot Industrial Manufacturing, Construction
- 200 acres
- Utilities (per month):
 - Electricity: 1,000KW, 650,000KWh
 - Water/Wastewater: 50,000cf, 2 meter
- 1,000 jobs (Bureau of Labor Statistics equivalent occupations)

Occupations	Employment
Team Assemblers	150
Welders, Cutters, Solderers, and Brazers	100
Machinists	100
Structural Metal Fabricators and Fitters	100
Engine and Other Machine Assemblers	100
Computer-Controlled Machine Operators	100
Mechanical Engineer	80
Electrical Engineers	80
Computer Hardware Engineers	80
Inspectors, Testers, Samplers, and Weighers	56
First-Line Supervisors of Production Workers	50
Industrial Production Managers	3
General and Operations Managers	1
Total	1,000

Annual Operating Cost - Manufacturing

Metro	Payroll	Benefits	Utilities	Real Estate	Property Tax	Total Operating Cost	Index
Phoenix	\$72,214,667	\$12,901,550	\$665,416	\$12,128,380	\$2,273,675	\$100,183,688	100.0%
Austin	\$79,531,211	\$14,120,928	\$691,450	\$13,774,556	\$4,940,265	\$113,058,411	112.9%
Dallas- Fort Worth	\$77,434,630	\$13,755,228	\$846,412	\$11,655,311	\$5,743,323	\$109,434,904	109.2%
Detroit	\$79,607,148	\$14,492,831	\$651,780	\$11,046,372	\$3,271,671	\$109,069,803	108.9%
Reno	\$75,837,072	\$14,357,358	\$995,579	\$10,710,290	\$3,067,029	\$104,967,327	104.8%
San Jose	\$94,259,093	\$20,553,447	\$1,728,857	\$15,253,789	\$3,499,257	\$135,294,444	135.0%

Total Operating Cost by Metro



Arizona Tax Environment vs. Competitor Markets

Arizona has a very competitive tax and fringe/mandated benefits environment compared to other major autonomous & electric vehicles markets.

			porate come		Unemployment Insurance			Workers	
Metro	Sales Tax Rate	Tax Rate	Basis	Inventory Tax	Rate (As % of payroll)	Wage Base	Max. Weekly Benefit	comp. (Rate per \$100 payroll)	Property Tax Rate
Phoenix	8.60%	4.90%	Net income	No	2.00%	\$8,000	\$320.00	\$0.87	1.10%
Austin	8.25%	0.75%	Taxable margin	Yes	2.70%	\$9,000	\$591.00	\$0.88	1.74%
Dallas- Fort Worth	8.25%	0.75%	Taxable margin	Yes	2.70%	\$9,000	\$591.00	\$0.88	2.26%
Reno	8.27%	1.17%	Payroll	No	2.95%	\$40,600	\$469.00	\$1.00	0.93%
San Jose	9.38%	8.84%	Net income	No	3.40%	\$7,000	\$450.00	\$2.26	1.00%

Source: Applied Economics Metrocomp Tool, 2025; Tax Foundation, 2024; Various state revenue departments, 2024; Oregon Dept. of Consumer and Business Services, "Workers' Comp. Premium Rate Ranking", 2022; U.S. DOL, "Significant Provisions of State Unemployment Insurance Laws", Jan 2024.



Statutory Incentives

Statutory Incentives

Even with the highly competitive tax environment in Greater Phoenix and Arizona, there are several tax incentives that can be utilized to mitigate operating costs. Please note that this is not a comprehensive list of all incentives available in the state of Arizona. Additionally, it should be noted that this is only a guide for potential incentives. Actual incentives will depend on project parameters and varying program qualifications and requirements as determined by the Arizona Commerce Authority.

Quality Jobs Tax Credit

The Quality Jobs Tax Credit program awards \$9,000 of tax credits over three years for qualifying companies. The chart below highlights minimum qualifying capital expenditure and wage rate in an urban area, while the texts describe additional program parameters.



Rural

Urban

Min. New Jobs	County Median Wage	Maricopa	Min. Capex
25	100%	\$48,630	\$5,000,000
25	125%	\$60,788	\$2,500,000
25	150%	\$72,946	\$1,000,000
25	200%	\$97,261	\$500,000

Min. New Jobs	County Median Wage	Pinal	Min. Capex
5	100%	\$47,778	\$1,000,000
5	125%	\$59,722	\$500,000
5	150%	\$71,666	\$100,000

Statutory Incentives

Qualified Facilities Refundable Tax Credit

- Targets manufacturing facilities, including those focusing on research and development or headquarters locations
- Offers refundable income tax credit equal to the lesser of:
 - 10% of the qualifying capital investment, or
 - \$20,000 per net new full-time employment position at the facility (if company invests
 - over \$2B and they can qualify for \$30,000 per employee), or
 - \$30,000,000 per taxpayer
- At least 51% of new full-time jobs must earn greater than 125% of the state median wage for production occupations in urban areas (\$55,744); 100% in rural areas (\$44,595)
- Offer to pay at least 65% of health insurance premiums for all net-new fulltime employees
- Minimum investment of \$250,000

Foreign Trade Zones (FTZ)

- Designated areas where imports can be stored without full customs formalities
- In Arizona, property is reclassified from Class 1 to Class 6, lowering assessment ratio from 16% to 5%
- Property tax savings of up to 69%

HB2822

This legislation sets the full cash value of business and agricultural personal property initially classified during or after-Tax Year 2022 to 2.5% of the property's acquisition cost. Properties that can benefit from the new legislation include shopping centers, golf courses, manufacturers, and other personal property devoted to commercial or industrial use that is not classified elsewhere, agricultural property, and personal property in a FTZ or Military Reuse Zone.

Sales Tax Exemptions

- Equipment and machinery directly used in manufacturing is exempt from sales tax
- Research and development equipment and machinery is exempt from sales tax
- Electric and Natural gas utilities are exempt from sales tax for manufacturing and smelting operations

R&D Tax Credit

- This incentive supports increased research and development activities conducted in this state, including research conducted at a state university and funded by the company
- Credit amount is 24% of first \$2.5 million in qualifying expenses plus 15% of the qualifying expenses in excess of \$2.5 million
- Qualifying small companies (less than 150 fulltime employees) can apply to make their credit refundable (up to 75% of its current year excess R&D credit). A company can receive up to \$100,000 in refundable credits per year
- Any unused credit can by carried forward for 10 years.

Key Infrastructure

Greater Phoenix Regional Highway Map

The map below displays existing and planned highway infrastructure in Greater Phoenix. The region's highways are well-planned and provide easy access to all the major submarkets in the region. Proximity to Interstates 8 and 40 means access to California markets is seamless.



Key Infrastructure

Commute Times & Light Rail

Companies that move to the region leverage the access to workforce and the proximity to customers. The region has a modern freeway system and an expanding light rail that ensures a robust talent supply, regardless of business location. The region's commute times, which are shorter than competitor markets including Austin and Dallas-Fort Worth, enable employees to spend more time enjoying their lifestyle and less time in traffic.

Metro	Average Commute Times	Yearly Commute	Index
Phoenix	26.7 minutes	9.6 days	100.0%
Austin	27.2 minutes	9.8 days	102.0%
Dallas-Fort Worth	28.4 minutes	10.3 days	107.3%
Detroit	26.4 minutes	9.2 days	95.8%
Reno	23.3 minutes	8.4 days	87.5%
San Jose	27.6 minutes	10.0 days	104.1%

Source: ACS 2023 1-Year Estimates



Key Infrastructure

Greater Phoenix Airport Connectivity

Greater Phoenix is home to two commercial airports: Sky Harbor International Airport and Mesa Gateway International Airport. Sky Harbor, the larger of the two, is consistently rated among the best international airports in the United States.

Major carriers from Sky Harbor include:

- Aeroméxico
- Air Canada
- Air France
- Alaska Airlines
- American Airlines
- Boutique Air
- British Airways

- Delta Airlines
- DHL (Freight)
- FedEx (Freight)
- Flair Airlines
- Frontier Airlines
- Hawaiian Airlines
- JetBlue

- Porter
- Southwest Airlines
- Spirit Airlines
- Sun Country Airlines
- United Airlines
- UPS (Freight)
- WestJet



Phoenix Sky Harbor International Airport:

- 52.3 million passengers in 2024
- 485,000 landings and takeoffs in 2024
- Over 1,000 tons of cargo handled daily

Sky Harbor offers nonstop flights to 24 international locations, including:

- London
- Paris
- Mexico City
- Montreal
- Toronto
- Vancouver



Quality of Life

Parks & Recreation

Greater Phoenix is home to hundreds of parks and hundreds of miles of hiking, biking and walking trails. The region is home to the three largest municipal parks in the United States, McDowell Sonoran Preserve, South Mountain Park, and Phoenix Sonoran Preserve. Other large parks in the region include the White Tank Mountain Regional Park, Camelback Mountain, Piestewa Peak and the Superstition Mountains. Notable walking trails in the region include the canal system, Tempe Town Lake, the Greenbelt and Papago Park.



Quality of Life

Cost of Living

Greater Phoenix is affordable for companies and the people that make them successful. The cost of living is comparable to peer regions and remains substantially under that of regions like San Jose, California.

Metro	Groceries	Utilities	Transportation	Health Care	Index	Local Index
Phoenix	103.3	109.3	100.2	89.6	107.2	100.0%
Austin	95.8	98.9	98.0	97.6	96.6	90.1%
Dallas- Fort Worth	98.7	120.8	90.0	107.9	100.8	94.0%
Detroit	100.5	104.9	105.4	106.4	103.1	96.2%
Reno	104.0	87.4	123.1	84.7	103.7	96.7%
San Jose	115.4	152.3	130.6	118.7	183.7	171.3%

Source: C2ER 2024 Q3 Cost of Living Index

Housing

Housing prices and rental rates are comparable to peer markets.

Metro	Median Home Value	Index	Median Rent	Index
Phoenix	\$452,774	100.0%	\$1,812	100.0%
Austin	\$446,345	98.6%	\$1,675	93.4%
Dallas- Fort Worth	\$370,383	81.8%	\$1,740	96.0%
Detroit	\$249,923	55.2%	\$1,466	80.1%
Reno	\$549,279	121.3%	\$1,909	105.3%
San Jose	\$1,671,368	369.1%	\$3,272	180.5%

Source: Zillow Home Value Index January 2025; Zillow Observed Rent Index February 2025

Personal Income Tax

Greater Phoenix has a flat personal income tax of 2.5%, the lowest of states that have a personal income tax across all income levels.

State	\$50,000	\$150,000	\$270,000	\$500,000	\$1 Million or More
Arizona	2.5%				
Texas	N/A				
Michigan	4.25%				
Nevada	N/A				
California	8.00%	9.30%	9.30%	11.30%	13.30%

Source: Tax Foundation 2025. Tax rates are for single filers.

Rankings & Recognition

#1

Arizona State University named America's Most Innovative Schools ten years in a row by U.S. News & World Report

#1

Sky Harbor International Airport ranked 1st in the Wall Street Journal's "Best Large U.S. Airports 2023"

#4

Maricopa county ranked as the fourth-fastest growing county in the U.S. between July 2022 and 2023

#5

In 2024, Arizona and Greater Phoenix ranked fifth for sustainability by Site Selection Magazine

#7

Arizona is consistently ranked in the top-7 by U.S. News and World Report in power grid reliability for 2024

Тор 10

In 2025, Arizona ranks among top 10 states to start a business by WalletHub

Top 20 In 2024, Chandler, Gilbert and Scottsdale were listed in the top 20 for best cities to raise a family

Top Tier

APS and SRP rank as top business service providers by J.D. Power and Associates for reliability

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