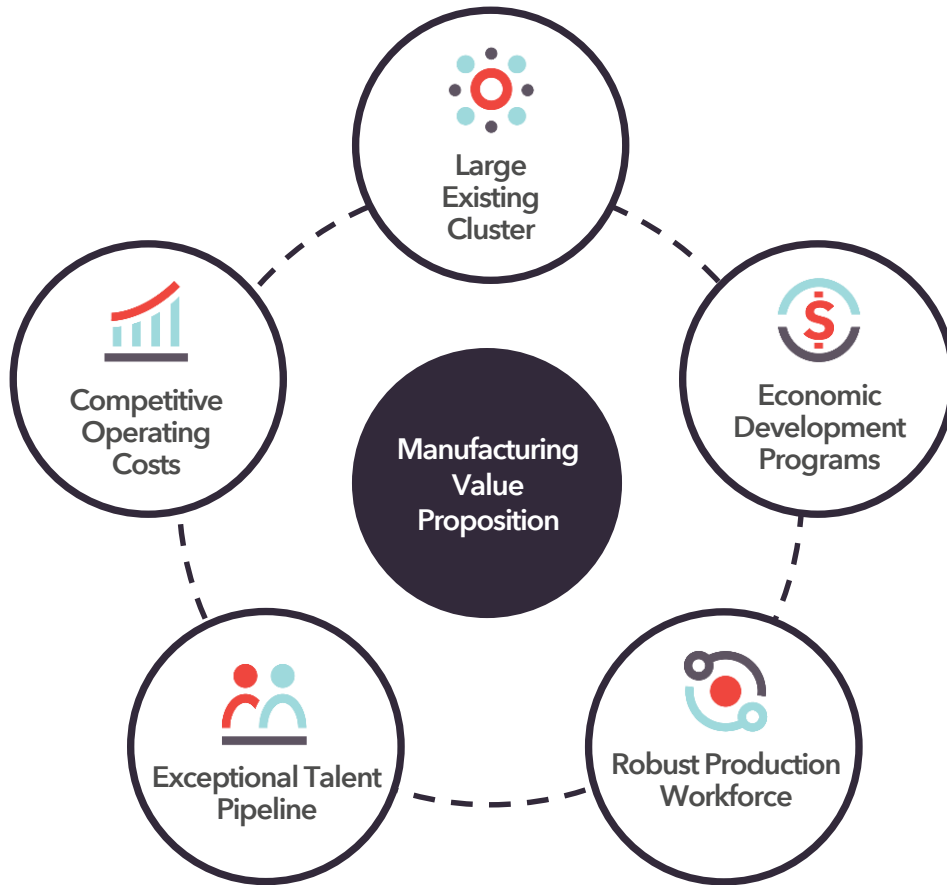


Advanced Manufacturing Ecosystem

OCTOBER 2019

Value Proposition



Large Existing Cluster	Economic Development Programs	Robust Production Workforce	Exceptional Talent Pipeline	Competitive Operating Costs
<ul style="list-style-type: none"> • Home to 2,843 manufacturing establishments • Companies with a major presence in the region include Intel, Honeywell and Boeing • Major manufacturing sectors are Aerospace, Computer and Electronic Products, Transportation Equipment and Fabricated Metal Product 	<ul style="list-style-type: none"> • Up to \$20,000/job in refundable tax credit • \$9K of corporate income tax credits per job • Additional depreciation • Sales tax abatement on electricity • Sale tax exemptions for machinery and equipment • Foreign Trade Zone sites can reduce property tax by 73% 	<ul style="list-style-type: none"> • Total employment of 137,858 in manufacturing establishments 	<ul style="list-style-type: none"> • Over 9,700 graduates in production programs in 2018 • Over 7,300 graduates in computer science, math, and engineering • Manufacturing specific programs at the high school, community college and university level 	<ul style="list-style-type: none"> • Substantially cheaper than major competitor markets • Right to Work state • No inventory tax, 4.9% corporate income tax rate and 2.59%-4.54% personal income tax rate

An Environment to Support and Grow Industry

Companies in Greater Phoenix benefit from low business costs and an advantageous operating environment. The state offers a minimalist regulatory approach, no corporate franchise tax and is constitutionally recognized as a right-to-work state. From aggressive tax credits and incentives, to programs designed to increase access to capital, the region offers direct access to Arizona's robust, pro-business climate.

Comparative Operating Advantages

- Minimal regulation
- Right-to-work state
- Low unionization
- 90 days or less permitting, guaranteed
- Low worker's compensation and unemployment
- Foreign Trade Zone (AZ Property Tax Benefit)
- Military Reuse Zone



Strategic management of water supply, using 1957 consumption levels



Ranked in the top 10 for low catastrophic and natural disaster risk



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

Lower Costs, Greater Value

- Proximity to large markets
- Incentives targeting manufacturers
- No inventory tax
- Aggressive depreciation schedules
- 100 percent of net operating loss may be carried forward for five years
- Sales tax exemptions on equipment and utilities used for manufacturing



Tax Overview

Greater Phoenix offers a competitive tax environment that makes it an ideal place for businesses to go to scale.

State-Local Tax Burdens per Capita & as a Percentage of Income

State	State-Local Tax Burdens as a Share of State Income	Total Tax Burden Per Capita
Arizona	8.8%	\$3,276
California	11.0%	\$5,237
Nevada	8.1%	\$3,349
Oregon	10.3%	\$4,095
Washington	9.3%	\$4,541

Ranking on Five Component Taxes

Component Tax	Arizona	California	Nevada	Oregon	Washington
Corporate Tax	17	31	33	30	44
Individual Income Tax	19	49	5	36	6
Sales Tax	47	43	40	4	49
Unemployment Insurance	13	17	45	37	19
Property Tax	5	14	8	17	25
Overall Rank	27	49	9	7	20

Tax Overview (Cont.)

Greater Phoenix offers a competitive tax environment that makes it an ideal place for businesses to go to scale.

Personal Income Tax by State

State	\$50,000	\$150,000	\$270,000	\$500,000	\$1 Million Or More
Arizona	3.36%	4.24%	4.54%	4.54%	4.54%
California	8.00%	9.30%	9.30%	11.30%	13.30%
Nevada	No Personal Income Tax Levied				
Oregon	9.00%	9.90%	9.90%	9.90%	9.90%
Washington	No Personal Income Tax Levied				

State and Local Sales Tax Rates

	Arizona	California	Nevada	Oregon	Washington
State Tax	5.60%	7.25%	6.85%	--	6.50%
Rank	28	1	7	--	9
Average Local	2.77%	1.31%	1.29%	--	2.67%
Combined	8.37%	8.56%	8.14%	--	9.17%
Rank	11	9	13	--	4

Notable Companies

Advanced Manufacturing Companies Thrive in Greater Phoenix

More than 2,800 Arizona-based companies make this state one of the nation's largest supply chain contributors for advanced manufacturing.

- Intel
- Honeywell
- Boeing
- NXP Semiconductors
- Microchip Technology
- Northrop Grumman
- Infineon
- ON Semiconductor
- UTC Aerospace Systems
- Medtronic Microelectronics Center
- Cisco Systems
- Arizona Nutritional Supplements
- Rogers Corporation
- Sumco Phoenix Corporation
- MD Helicopters
- St Jude Medical
- Celgene
- Abbott Laboratories
- ASM America
- Amkor Technology
- Moog
- Integrated Device Technology
- B A E Systems
- Motorola
- Garmin

The companies listed have already realized the benefits of doing business in Greater Phoenix, including the region's affordable operating environment and market advantages such as:



One of the lowest labor costs in the Western U.S.



The third largest labor pool in the U.S.



An exceedingly accessible geographic region

Regional Competencies	Employment
Computers and Electronic Manufacturing	28,328
Transportation Equipment Manufacturing	18,588
Fabricated Metal Product Manufacturing	15,952
Food Manufacturing	13,805
Chemical Manufacturing	6,050
Machinery Manufacturing	6,027
Printing and Related Support Activities	4,982

Industry Cluster Overview

Below are the employment figures and business locations for the top companies in the Greater Phoenix advanced manufacturing cluster. While these companies may have more employees or business locations in Greater Phoenix, only operations that meet the cluster definition have been counted.

Company	Greater Phoenix Operations	Employment
Intel	Microchip Manufacturing, Research and Development	10,290
Honeywell	Aerospace Headquarters	8,706
Boeing Co.	Military Aircraft Manufacturing	3,600
Northrop Grumman	Flight Systems Headquarters, Space Systems Group, Defense Systems Group	2,720
Microchip Technology	Headquarters	1,953
NXP Semiconductors	Semiconductor Manufacturing	1,786
Medtronic Microelectronics Center	Other Aircraft Parts and Auxiliary Equipment Manufacturing	791
UTC Aerospace Systems	Headquarters	635
Nammo Talley	Guided Missile and Space Vehicle Propulsion Unit and Propulsion Unit Parts Manufacturing	523
Huhtamaki	Food Packaging Manufacturing	280
BAE Systems	Manufacturing Facility	264
NMG Aerospace	Aircraft Manufacturing	150
Cadence Aerospace - ADM Operations	Aircraft Engine and Engine Parts Manufacturing	126
IRIS USA	US Regional Headquarters	100
Other Manufacturing Employees		105,934
Total in Greater Phoenix		137,858

Labor Analysis

The table below shows annual wages at the 10th percentile, median, and 90th percentile rates for occupations related to Advanced Manufacturing.

Occupation	Jobs	10 th Percentile Wages	Median Wages	90 th Percentile Wages
General and Operations Managers	38,611	\$41,362	\$91,198	\$193,730
Laborers and Freight, Stock, and Material Movers, Hand	35,958	\$22,559	\$28,448	\$48,577
Maintenance and Repair Workers, General	19,120	\$23,905	\$37,002	\$59,102
Industrial Truck and Tractor Operators	8,811	\$24,523	\$35,339	\$50,792
Packers and Packagers, Hand	8,111	\$21,890	\$24,281	\$38,505
First-Line Supervisors of Production and Operating Workers	7,174	\$34,464	\$55,334	\$98,440
Training and Development Specialists	6,525	\$36,899	\$56,832	\$94,090
Inspectors, Testers, Sorters, Samplers, and Weighers	6,131	\$25,141	\$37,690	\$60,934
First-line Supervisors of Transportation and Material Moving Workers, Except Aircraft Cargo Handling Supervisors	5,529	\$30,967	\$53,307	\$79,472
Installation, Maintenance, and Repair Workers, All Other	3,197	\$25,709	\$39,040	\$64,288
Electrical Engineers	3,187	\$60,498	\$101,730	\$156,200
Industrial Engineers	2,992	\$50,920	\$90,273	\$140,760
Helpers--Production Workers	2,915	\$22,240	\$27,444	\$38,046

Labor Analysis (Cont.)

The table below shows annual wages at the 10th percentile, median, and 90th percentile rates for occupations related to Advanced Manufacturing.

Occupation	Jobs	10 th Percentile Wages	Median Wages	90 th Percentile Wages
Mechanical Engineers	2,885	\$58,407	\$90,144	\$133,720
Production Workers, All Other	2,563	\$22,649	\$29,706	\$50,415
Industrial Production Managers	2,415	\$54,840	\$93,690	\$160,641
Electrical and Electronics Engineering Technicians	2,389	\$39,000	\$62,910	\$88,670
Industrial Machinery Mechanics	2,300	\$33,753	\$47,521	\$67,269
Industrial Engineering Technicians	2,112	\$36,772	\$57,969	\$101,047
Aerospace Engineers	2,068	\$66,853	\$105,114	\$156,875
Computer-Controlled Machine Tool Operators, Metal and Plastic	1,121	\$23,010	\$32,621	\$58,187
Aerospace Engineering and Operations Technicians	719	\$42,891	\$66,170	\$117,860
Mechanical Engineering Technicians	692	\$34,852	\$57,773	\$84,584
Chemical Technicians	630	\$26,083	\$42,078	\$79,408
Chemical Engineers	140	\$69,810	\$99,430	\$129,101
Total	168,295	--	--	--

Mature Talent & Workforce Pipeline

Education is critical not only for companies trying to meet today's demands, but also for preparing tomorrow's workforce to excel in a dynamic manufacturing environment.

Arizona has an extremely competitive workforce in regards to training, quality and availability of workers while maintaining one of the lowest costs for labor in the nation.

Arizona State University, Grand Canyon University, Maricopa Community Colleges, Northern Arizona University, University of Arizona and the University of Phoenix are among the more than 40 universities and other institutions of higher learning that prepare the region's workforce.

Arizona State University

#1 most innovative school in the U.S.
(U.S. News & World Report, 2016, 2017, 2018, 2019, 2020)

#5 in the nation for best-qualified graduates (Wall Street Journal)

Student population of 70,000+ across five regional campuses

70 percent of ASU graduates remain in the state after graduation



The current population of Greater Phoenix is 4.8 million and is expected to grow to nearly 6.5 million in the next 20 years.



A relatively young region, Greater Phoenix has a median age of 37—one year younger than the average age nationwide.

Thunderbird School of Management

Ranked #1 international full-time MBA

Maricopa Community Colleges

Educates and trains 260,000 individuals annually



Projected employment growth over the next decade is 17 percent compared to the national projected growth of 9 percent.

Talent Pipeline: Universities

Arizona has three 4-year public universities; Arizona State University in Tempe, Northern Arizona University in Flagstaff and the University of Arizona in Tucson. Arizona State University has top ranked engineering and technology programs, with the Fulton School of Engineering undergraduate program ranking in the top 20 percent of ranked programs by U.S. News & World Report. Many of its 590 faculty members have been honored with the highest awards in their fields. The engineering school provides over 16,000 students per year advanced knowledge on challenges in energy, health, sustainability, education and security. It offers a wide range of innovative programs like E2 Camps, engineering residential communities, undergraduate research, student organizations and Engineering Projects in Community Service (EPICS), to help prepare students for occupations in the future.

Arizona State University, Northern Arizona University and University of Arizona each have a full range of engineering, engineering technology/technician and general production/industrial related programs. Examples of production programs include aerospace engineering, computer engineering, electrical and electronics engineering, mechanical engineering, industrial technology/technician, machine tool technology/machinist, welding technology/welder and others. There were approximately 9,721 non-distance production-related graduates in 2018 from the universities across Arizona and the community colleges and trade schools within Greater Phoenix. Arizona State University supplied 2,628 of these graduates.

University	Type	City	Total Enrollment	Total Graduates	Production Graduates
Arizona State University	4-yr Public	Tempe	72,709	18,922	2,628
Grand Canyon University	4-yr Private	Phoenix	20,500	2,276	0
Northern Arizona University	4-yr Public	Flagstaff	30,736	3,548	556
University of Arizona	4-yr Public	Tucson	45,918	6,793	635
Total:	-	-	169,863	31,539	3,819

Talent Pipeline: Community Colleges and Trade School

Maricopa Community College System is comprised of 10 colleges, two skill centers and numerous education centers. This community college system is also one of the largest in the country, training over 200,000 students annually; and is the largest provider of job-training in Arizona.

University	Type	City	Total Enrollment	Total Graduates	Production Graduates
Arizona Automotive Institute	<2-yr Certificate	Glendale	692	420	420
Central Arizona College	Associates	Coolidge	5,044	1,146	197
Chandler-Gilbert Community College	Associates	Chandler	14,728	952	236
DeVry University	Masters	Phoenix	478	256	30
East Valley Institute of Technology	<2-yr Certificate	Mesa	573	143	59
Estrella Mountain Community College	Associates	Avondale	9,976	2,313	79
GateWay Community College	Associates	Phoenix	5,081	1,460	217
Glendale Community College	Associates	Glendale	17,942	4,989	130
Mesa Community College	Associates	Mesa	20,387	1,189	141
Paradise Valley Community College	Associates	Phoenix	8,115	1,811	1
Phoenix College	Associates	Phoenix	10,959	1,220	1
Rio Salado College	Associates	Tempe	18,304	2,742	110
Scottsdale Community College	Associates	Scottsdale	8,744	1,717	11
South Mountain Community College	Associates	Phoenix	4,075	1,066	1
Universal Technology Institute-Avondale	Associates	Avondale	1,869	1,049	1,049
Universal Technology Institute-Phoenix	Associates	Phoenix	952	566	566
Total:	-	-	127,919	23,039	3,248

Talent Pipeline: Science and Engineering

The table below shows the Arizona colleges and universities with programs relating to computer science, engineering, math and science, engineering technician occupations as well as graduates for the 2017-2018 academic year.

Institution	Computer Science	Math & Science	Engineering	Total
Arizona State University-Polytechnic	-	6	458	464
Arizona State University-Tempe	651	362	2,133	3,146
Arizona State University-West	-	43	-	43
Arizona Western College	-	58	56	114
Central Arizona College	-	4	37	41
Chandler-Gilbert Community College	-	170	21	191
Cochise County Community College District	3	1	27	31
Coconino Community College	-	-	16	16
CollegeAmerica-Phoenix	38	-	-	38
DeVry University-Arizona	-	-	30	30
Dine College	-	2	3	5
Eastern Arizona College	-	8	28	36
Embry-Riddle Aeronautical University-Prescott	-	21	126	147
Estrella Mountain Community College	-	112	55	167
Florida Career College-UEI College-Phoenix	-	-	25	25
Gateway Community College	-	21	26	47

Talent Pipeline: Science and Engineering

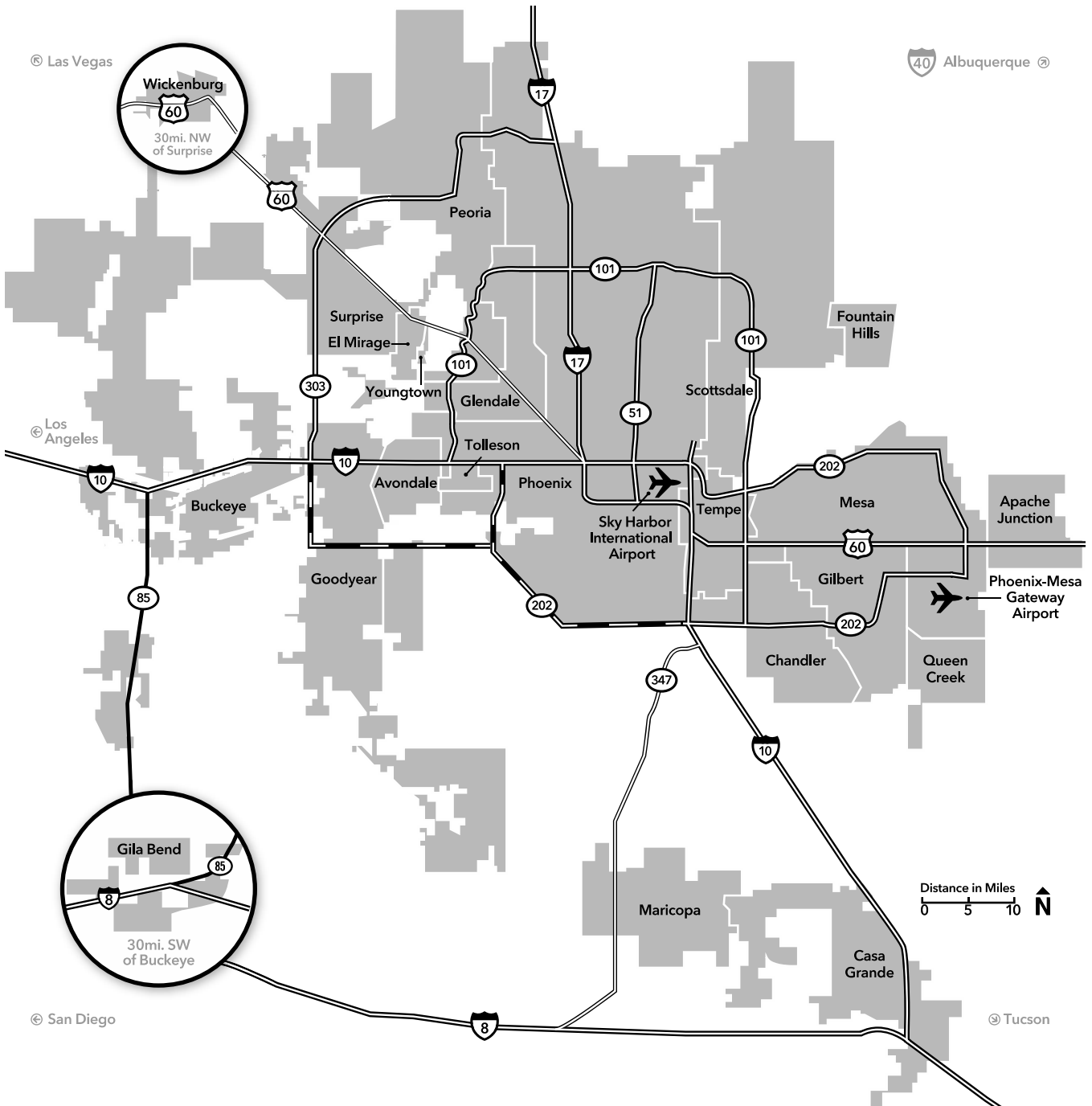
The table below shows the Arizona colleges and universities with programs relating to computer science, engineering, math and science, engineering technician occupations as well as graduates for the 2017-2018 academic year.

Institution	Computer Science	Math & Science	Engineering	Total
Glendale Community College	-	250	53	303
Grand Canyon University	13	-	-	13
Mesa Community College	-	203	35	238
Mohave Community College	2	3	3	8
Northern Arizona University	51	193	390	634
Northland Pioneer College	-	-	53	53
Paradise Valley Community College	-	86	-	86
Phoenix College	-	75	1	76
Pima Community College	-	-	81	81
Rio Salado College	-	-	2	2
Scottsdale Community College	-	55	11	66
South Mountain Community College	-	53	1	54
University of Arizona	229	423	485	1,137
University of Arizona-South	5	2	-	7
Yavapai College	-	-	8	8
Total	992	2,151	4,164	7,307

Key Infrastructure

Greater Phoenix Regional Highway Map

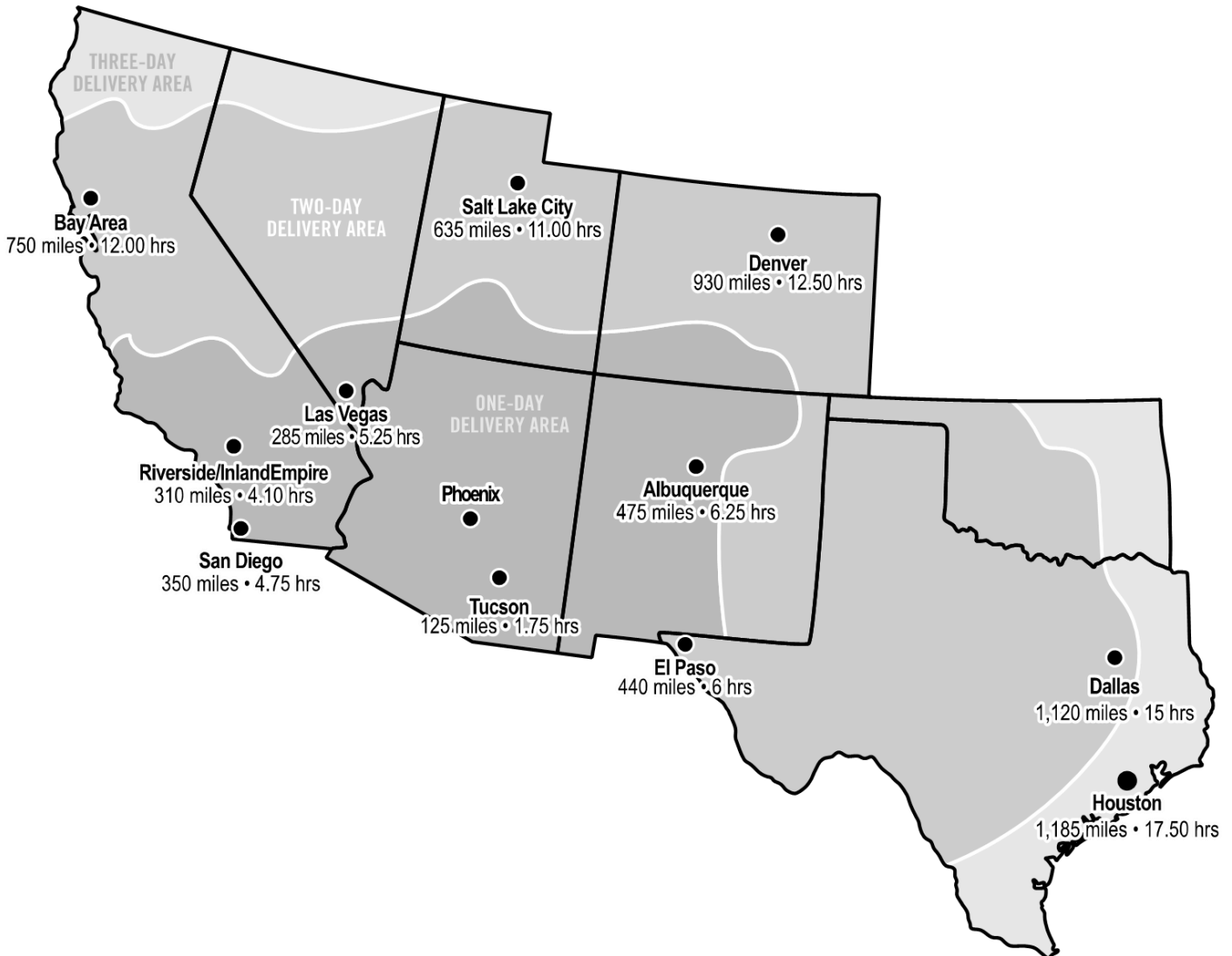
The map below displays existing and planned highway infrastructure in Greater Phoenix. The region's highways are well-planned and provide easy access to all of the major submarkets in the region. In addition, proximity to Interstates 8 and 40 mean that access to California markets is seamless.



Key Infrastructure

Greater Phoenix Market Access

Greater Phoenix has access to more than 33 million people in seven states within a one-day truck haul, including major seaports in Los Angeles and Long Beach. Firms have access to nearly the entire Southwest within a two-day haul. Hauling is made easy thanks to easy access to Interstates 8, 10, 17, and 40.

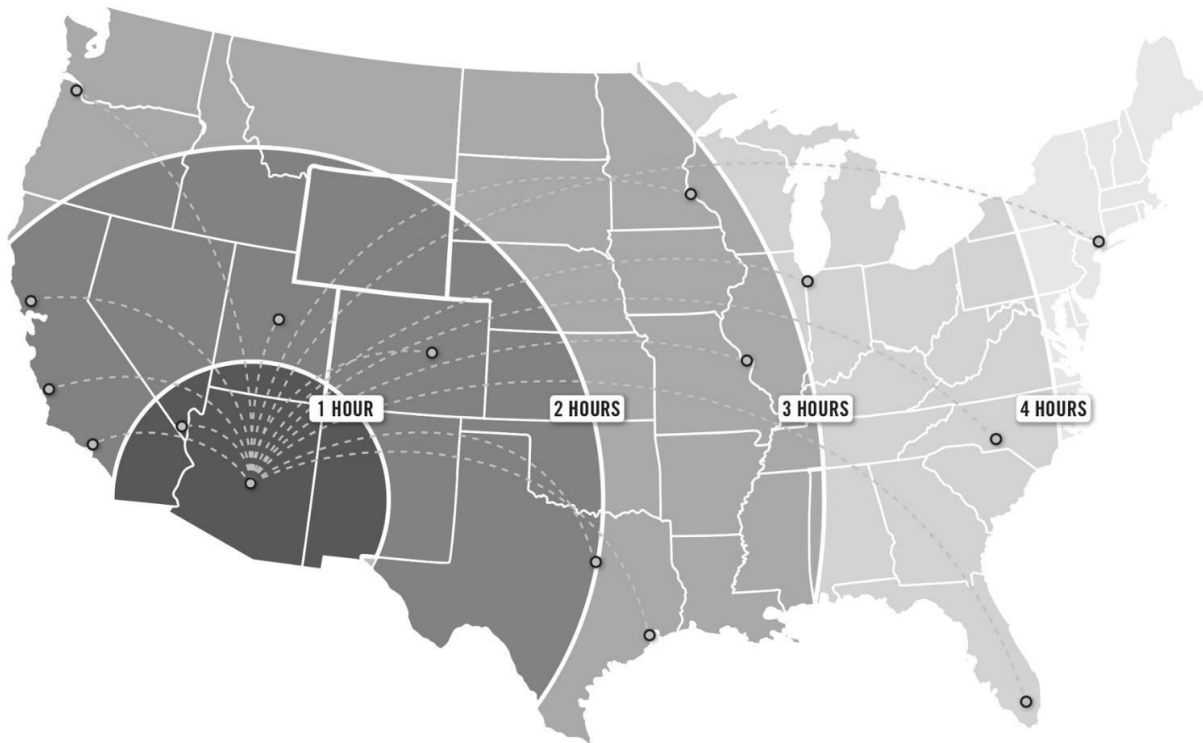


Key Infrastructure

Greater Phoenix Airport Access

Skybridge at Phoenix-Mesa Gateway International Airport:

- An air logistics hub to ship high-value goods directly to consumers through a bonded facility incorporating Mexican and U.S. customs – will be the first of its kind in the interior U.S. for air freight activities.
- Ideally situated within the Southwestern U.S. to not only meet growing e-commerce and airport logistics demands in the Phoenix metropolitan area but also to serve as a direct carrier to and from consumers in Mexico and across the U.S.A.
- In addition, the close proximity to ASU’s Polytechnic Campus creates opportunities for partnerships to attract and retain workforce talent within Gateway.



Phoenix Sky Harbor International Airport:

- 43 million passengers annually
- 1,200 daily domestic and international flights
- Over 800 tons of cargo handled daily

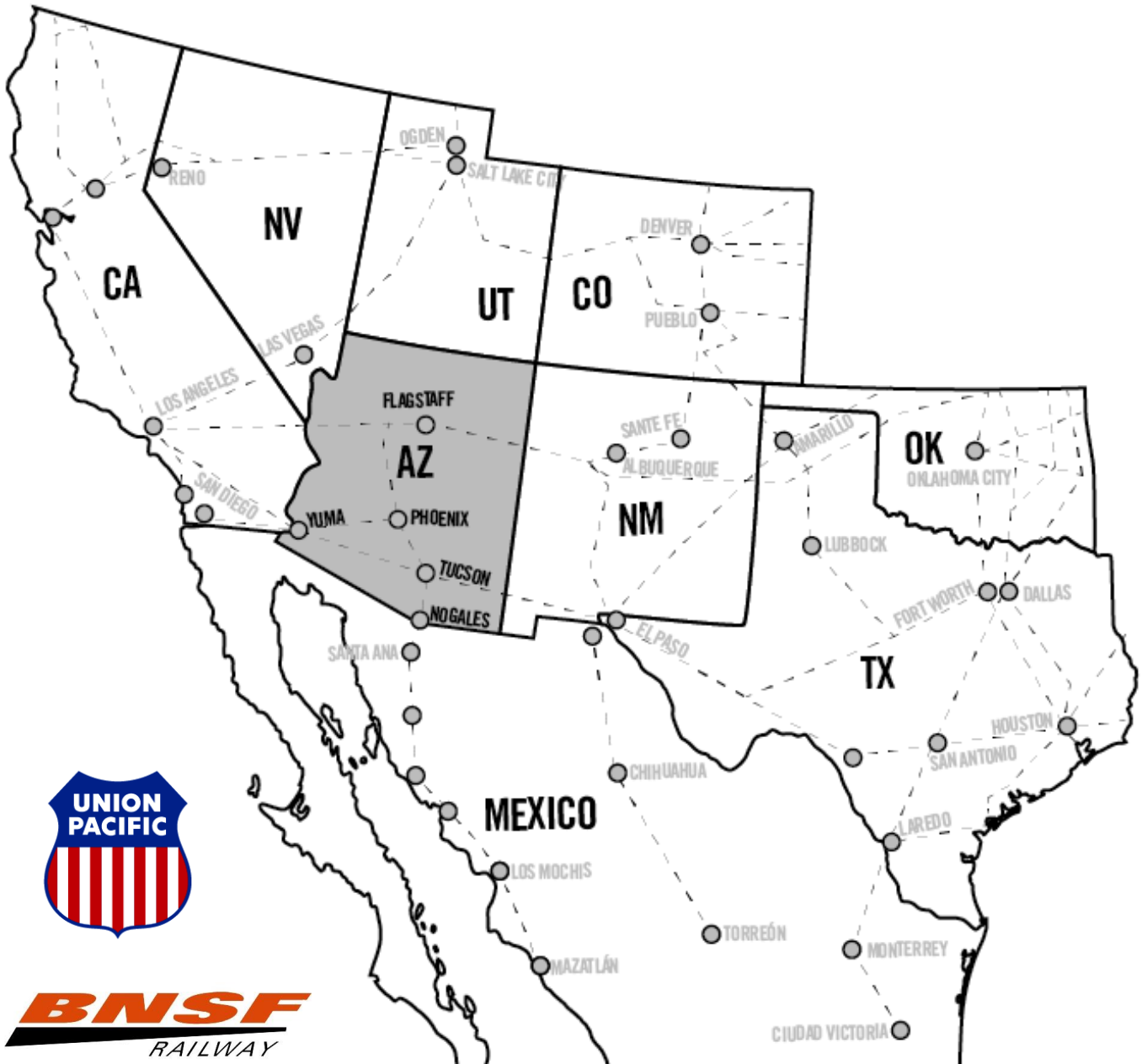
Major Cargo Carriers from Sky Harbor:

- | | |
|---------------------|----------------------|
| • Amazon Prime Air | • DHL |
| • American Airlines | • FedEx |
| • Ameriflight | • Southwest Airlines |
| • British Airways | • United |
| • Delta Airlines | • UPS |

Key Infrastructure

Regional Rail Access

Greater Phoenix is served by two major railroads, Union Pacific and BNSF. The map below displays all major rail lines throughout the Southwest.



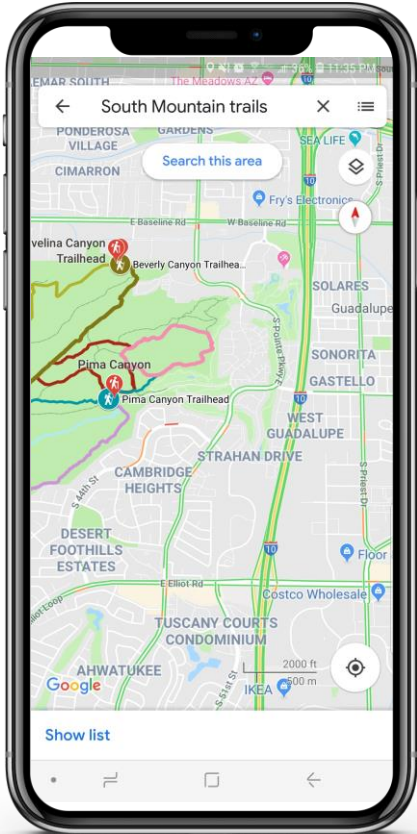


ADVANCED MANUFACTURING

Quality of Life

Parks & Recreation

Greater Phoenix is home to hundreds of parks and hundreds of miles of hiking, biking and walking trails. The Greater Phoenix region is home to the largest municipal park in the United States, South Mountain Park. South Mountain Park covers more than 16,000 acres. Other large parks in the region include the White Tank Mountain Regional Park, Camelback Mountain, Piastewa 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 more affordable for companies and the people that make them successful. Across all major buckets of expenses, Greater Phoenix is less expensive than all or many peer markets.

Metro	Cost of Living Index	Local Index
Phoenix	105.1	100.0%
Las Vegas	109.0	103.8%
Los Angeles	117.4	111.8%
Portland	120.9	115.1%
Reno	122.4	116.5%
San Jose	144.4	137.4%
Seattle	157.8	150.2%

Source: Emsi 2019 Q4 Cost of Living Dataset

Housing

Greater Phoenix has an affordable housing market. It is significantly less expensive to own or rent in the Greater Phoenix area than in all or many peer markets.

Metro	Median Home Value	Index	Median Rent	Index
Phoenix	\$271,600	100.0%	\$1,416	100.0%
Las Vegas	\$278,100	102.4%	\$1,340	94.6%
Los Angeles	\$656,000	241.5%	\$2,612	184.5%
Portland	\$397,600	146.4%	\$1,662	117.4%
Reno	\$367,500	135.3%	\$1,648	116.4%
San Jose	\$1,142,600	420.7%	\$3,332	235.3%
Seattle	\$494,100	181.9%	\$2,043	144.3%

Source: October 2019 Zillow Home Value Index (ZHVI), October 2019 Zillow Rental Index (ZRI)

Rankings & Recognition

#1

Phoenix was ranked #1 Fastest Growing City by population in Business Facilities' 2019 Metro Rankings Report

#1

Arizona State University named America's Most Innovative University 5 years in a row by US News

#3

Sky Harbor International Airport ranked 3rd in the Wall Street Journal's "The Best of the Biggest Airports"

Top Tier

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

Top 10

In 2019, Arizona was ranked in the top 10 best states to start a business by WalletHub

Top 10

Greater Phoenix is ranked in the top 10 for low catastrophic and natural disaster risk

Top 20

In 2018, two cities within the region were listed in the top 20 happiest cities in the nation

Top 20

Arizona ranked in the top 20 states for doing business in 2019

Greater Phoenix Greater Together

People. Place. Technology.