Growth, Innovation, and the Future of the Arizona Economy

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Arizona Gross Domestic Product, 2005-2016

Billions

Data: Bureau of Economic Analysis, Regional Economic Accounts. 2009 dollars
Data source: Bureau of Economic Analysis, Regional Economic Accounts
Per Capita GDP Relative to US Average, 1997-2015

Data: Bureau of Economic Analysis, Regional Economic Accounts
Per Capita Personal Income Relative to US Average, 1970-2015

Data source: Bureau of Economic Analysis, Regional Economic Accounts
Per Capita Personal Income Relative to US Average, 1970-2015

Data source: Bureau of Economic Analysis, Regional Economic Accounts
Bachelor’s Degree Attainment and GDP per Capita Relative to National Average, 2005-2015

Data source: Bureau of Economic Analysis, US Census Bureau
Per Capita State Support for Higher Education, FY16

Data: Grapevine Center, Illinois State University
Business and Higher Education Research Expenditures by State, 2013

Source: National Science Foundation, Science and Engineering State Profiles
Patents Granted by Metro, 2015

- San Jose: 18th Highest, 1,764 Patents
- New York
- Los Angeles
- Boston
- San Diego
- Seattle
- Chicago
- Minneapolis
- Detroit
- Houston
- Dallas
- Austin
- Philadelphia, D.C.
- Portland
- Atlanta
- Phoenix
- Raleigh
- Miami
- Rochester
- Denver
- Albany
- Cincinnati
- Cleveland
- Tucson

Patents (2015): 0, 2,000, 4,000, 6,000, 8,000, 10,000, 12,000, 14,000, 16,000
Percentage Change in Patents Granted to Western Metros Relative to 2000

Seattle
San Diego
Provo
San Francisco
San Jose
Las Vegas
Tucson
Portland
Denver
Salt Lake
Los Angeles
Phoenix
Riverside
Patents Issued to Top 20 Seattle Metro Assignees, 2000-2015

Microsoft
Amazon
Invention Science Fund
Boeing
Intel
Google
UW
Phoenix

Data: USPTO
Patents Issued to Top 20 Minneapolis Metro Assignees, 2000-2015

Cardiac Pacemakers
Medtronic
Ecolab
UM
Boston Sci.
Seagate
Honeywell
Phoenix

Data: USPTO
Annual Change in Number of Arizona Firms, 2000-2014

Value of Venture Capital Deals by State, 2009-2015

- Washington: $1.40B
- Colorado: $1.18B
- Utah: $670M
- Oregon: $670M
- Arizona: $987M

Data: Thomson Reuters, National Science Foundation
Exports by State, 2015
Arizona Employment by Occupation, Minimum Education Required and Probability of Job Loss Due to Automation

- No Formal Education
- High School
- Associate’s or Credential
- Bachelor’s
- Master’s
- Doctoral

Chance of Automation
Low
High

Red color reflects high chance of job loss due to automation.

Data: BLS and Frey and Osborne (2013)
## The Way Forward for Arizona

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<thead>
<tr>
<th></th>
<th>0-5 Years</th>
<th>5-15 Years</th>
<th>15-25 Years</th>
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<tbody>
<tr>
<td><strong>Objective</strong></td>
<td>Change mindset</td>
<td>Emerge as leading American economy</td>
<td>Emerge as leading global knowledge-driven economy</td>
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<tr>
<td><strong>Strategies</strong></td>
<td>Launch world-class engineering school</td>
<td>Deliver MIT/Stanford-level innovation ecosystem</td>
<td>Highest educated workforce in North America</td>
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<td><strong>Tactics</strong></td>
<td>Build investment strategy</td>
<td>TBD</td>
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<td>Change brand</td>
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<td></td>
<td>Unify business community</td>
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Broad Public Support for Human Capital-Based Economic Development

88% Favor elevating Arizona State University’s engineering school to be one of the top five programs in the country

68% Willing to pay one-quarter of one cent more on non-food products for a ten-year temporary sales tax to help fund new economic initiatives for the greater Phoenix region

Data: Public Opinion Strategies, Oct. 2014. MOE: 4.4%