

Arizona Technology Council

Arizona's Commitment to Growing the Technology Industry

Maricopa Association of Governments
Economic Development Committee
Tuesday, December 3, 2013

AZTC + What We Are Working to Create

About Us

Who We Are

The Arizona Technology Council is Arizona's premier trade association for science and technology companies. The Arizona Technology Council offers numerous events, educational forums and business conferences that bring together leaders, managers, employees and visionaries to make an impact on the technology industry.

History

The Council was established in 2002 after the Arizona High Tech Industry Cluster merged with the Arizona Software & Industry Association.

AMIT (Aerospace, Manufacturing and IT Clusters of Tucson) merged with the Arizona Technology Council in June 2008 to give the organization a state-wide presence.



Who We Are Today

Leadership

The Council is governed by a Board of Directors and the Chairman of the Board is Bob Witwer, vice president of advanced technology with Honeywell Aerospace.

President + CEO Steven G. Zylstra is responsible for the day-to-day operations and management of the Council and oversees a staff of ten.

Statewide

With an office in Phoenix, an office in Tucson and events regularly serving northern Arizona, the Council is Arizona's only statewide organization serving the technology sector.

Members

Close to 750 member companies throughout the state including Phoenix, Tucson, Flagstaff, Sierra Vista and Prescott.

Signature Programs + Events

- Lunch and Learn Series (Weekly in Phoenix/ Bi-Monthly in Tucson)
- After5 Networking Events (Monthly in Phoenix and in Tucson)
- Council Connect Events (Monthly in Phoenix)
- VIP Networking Events (Quarterly in Phoenix)
- Women in the Workforce Committee Events (Monthly in Phoenix)
- International Trade Delegations



Signature Programs + Events (Cont.)

- StartupConnect AZ (Wednesday, December 18)
- Phoenix Golf Outing (Wednesday, January 22, 2014)
- Arizona Aerospace, Aviation and Defense Requirements Conference (Thursday, March 6, 2014)
- Arizona Health + Medical Technology Expo (April 2014)
- Legislative Day (April 2014)
- Tucson Golf Tournament (Friday, May 2, 2014)
- Business + IT Expo and CIO of the Year Awards (May 2014)
- CEO Retreat (August 2014)
- Marketing Technology Summit (August 2014)
- Tucson Tech + Business Expo (Fall 2014)
- Governor's Celebration of Innovation (Fall 2014)



Attracting and Growing Talent in STEM-related Areas

The Arizona Technology Workforce Study

About the Study

After reading headline after headline about skilled labor shortages and routinely hearing from technology leaders about the difficulty of finding technology talent, the Arizona Technology Council commissioned the Seidman Research Institute at Arizona State University to conduct a workforce study that would focus on the manpower needs of high-technology companies operating in Arizona.

The results have been published in The Arizona Technology Workforce Study and have put to rest a number of myths about the size and cause of the “technology talent gap” in Arizona.

Arizona's Technology Workforce Study: Issues, Opportunities, and Competitive Pressures

The purpose of including primary research in the Study was to really hear – from the source - whether Arizona employers face difficulty attracting the scientists and engineers they need (and, if they do, where that difficulty lies).

- Primary research: Employer Survey and Interviews
 - 172 individuals from a total of 141 Arizona employers responded completely to the survey. Those respondents employ 21,259 science & engineering workers in Arizona.
 - Follow-up interviews were conducted with 47 individuals at 33 firms (all survey respondents)
- Primary research also included interviews with universities, community colleges, and workforce development and training agencies

Employer Survey + Interviews

One of the questions we wanted to know was, where are Arizona's technology employees coming from?

Recent Hires Who Moved from Out of State			
	Percent of total recent hires		
	Computer Scientists	Engineers	Scientists
Percentage who moved from outside Arizona	40.9%	38.9%	46.4%
If less than half of the computer scientists you have hired came from outside of Arizona, why is that?	Number of responses		
There is sufficient local availability	68	52	8
We cannot get computer scientists from outside Arizona to move here	21	16	3
Other reasons	34	23	7

Employer Survey + Interviews

One of the questions we wanted to know was, where are Arizona's technology employees coming from?

Recent New Grads Hired Who Graduated from AZ Schools			
	Percent of total recent hires		
	Computer Scientists	Engineers	Scientists
Percentage with a degree from an Arizona institution	32.3%	43.7%	24.7%
If less than half of the new grads you hired had a degree from an Arizona institution, why is that?	Number of responses		
Graduates from Arizona institutions do not have the specific skills we need	16	17	6
Few graduates from Arizona institutions apply, or they accept other offers	30	24	6
We have established recruiting relationships with schools outside of the state	17	18	3
Other reasons	54	42	9

Employer Survey + Interviews

What do Arizona's technology employers look for in science & engineering job candidates?

Experience Matters – A Lot.

Work Experience of Recent Hires			
	Computer Scientists	Engineers	Scientists
New grads	22.7%	28.9%	19.3%
2-5 yrs work experience	33.3	37.7	22.2
More than 5 yrs work experience	44.0	33.4	58.5

Employer Survey + Interviews

What do Arizona's technology employers look for in science & engineering job candidates?

Education Matters Too.

Education of S&E Workers			
Employment breakdown by level of educational attainment	Percent of total		
	Computer Scientists	Engineers	Scientists
No college	5.9%	2.1%	0.3%
2-year college degree	7.4	8.2	0.0
Bachelor's degree	67.2	60.9	18.7
Master's or Ph.D.	19.5	28.8	81.0

Employer Survey + Interviews

What Was *Not* Behind that Difficulty?

- It's not that Arizona institutions don't graduate enough technology workers. Nor is it that there aren't enough technology workers in Arizona.
- It's not that people don't want to move to Arizona. Good news! Despite what might be popular conception, Arizona is not a repellent of technology talent.

Employer Survey + Interviews

What Was Behind that Difficulty?

- Technology Industry Concentration (we're no Silicon Valley)
- Restrictions/prohibitions on Hiring Non-US Citizens
- Relatively Lower Wages
- By Far the Biggest Issue: Finding Scientists and Engineers with at Least Two Years of Highly Relevant Experience

Supply-Side Interviews

In addition to the demand-side primary research we did (the surveys and interviews), we also wanted to get a first-hand sense of the supply side. So we interviewed leaders from the state's universities, workforce development agencies, and community colleges.

- Among all three supplier groups, there is really a wealth of programs available to help supply scientists and engineers to Arizona's employers.
- Yet the employers don't report taking advantage of those programs.
- There is a very clear disconnect between what the employers said about available "supply" programs and what the suppliers themselves reported.

Moving Forward – Thoughts, Ideas Re: Workforce Study

Companies may need to increase their willingness to grow talent within and/or hire a greater percentage of recent graduates who have hands-on experience through internships and capstone-like courses.

There is a disconnect between the suppliers and demanders of technology talent. There is tremendous opportunity here in simply better connecting suppliers and demanders.

AZTC + Technology Talent

AZTC Career Center

Powered by Jobing.com, the AZTC Career Center boasts 40 percent off job postings rates. This resource is available to all AZTC member companies (and non-members without the discounted rate).

AZTC Tech Job Fair

AZTC partnered with TechFetch.com to produce September's Tech Job Fair. Connecting hiring technology businesses with job seekers, the event featured speakers highlighting trends and technologies that prospective employees can use to leverage their skills be prepared for their next opportunity. Over 20 technology companies exhibiting and the event had over 200 attendees.

STEM Pipeline in Arizona

Arizona SciTech Festival

The Arizona SciTech Festival is a celebration of STEM held annually in February and March. Through a series of over 200 expos, workshops, conversations, exhibitions and tours held in diverse neighborhoods throughout the state, the Arizona SciTech Festival excites and informs Arizonans.

Middle School Science Bowl

The Middle School Science Bowl is an academic competition for middle school students who work in a fast-paced verbal forum to solve technical problems and answer science and math questions.

Arizona Science & Engineering Fair (AzSEF)

Schools throughout the state select their most notable scholars to present their research at AzSEF and be recognized for their efforts. Winners are represented at the Intel International Science & Engineering Fair (ISEF), the world's largest international pre-college science competition.

FIRST (For Inspiration and Recognition of Science and Technology) Robotics

The FIRST Robotics Competition is a high school robotics competition comprised of teams of high school students competing to build robots that can complete a task, which changes every year.

Supply Chain Pipeline with Mexico: Aerospace and Automotive

Questions & Answers

Questions or feedback? Feel free to email me anytime at szylstra@aztechcouncil.org.