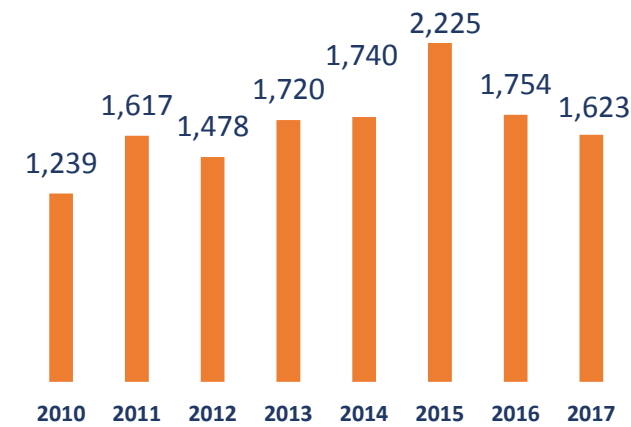
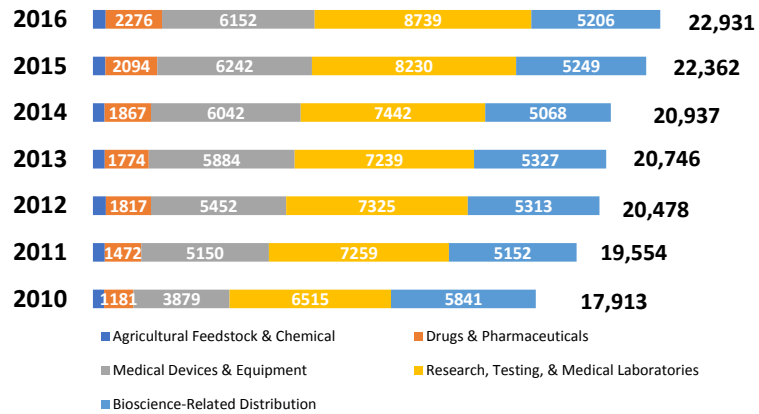


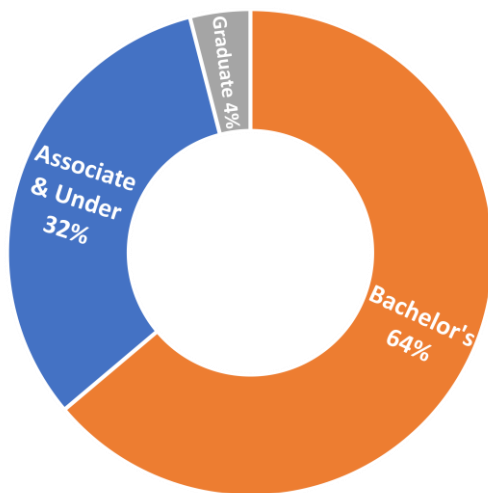
## STEM Openings, Life Sciences



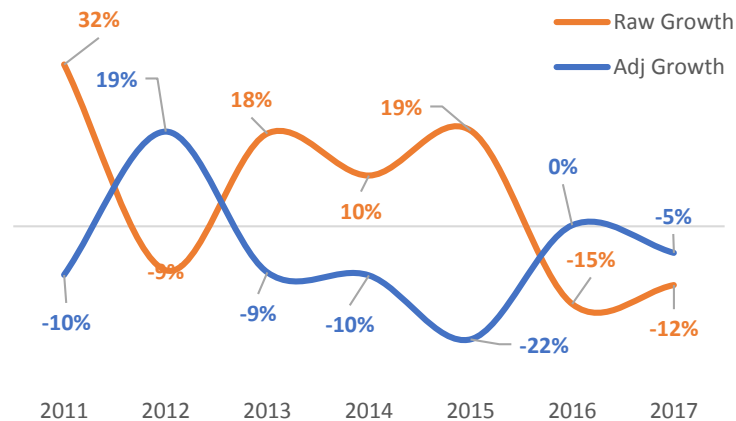
## Industry Employment



## Degree Requirements, STEM Openings, 2016 - 2017



## Annual Raw & Adjusted Growth in Industry Job Listings



STEM Openings, 2016 - 2017	Postings
<b>Sonora Quest Laboratories</b>	235
<b>Raytheon</b>	196
<b>C.R Bard/Becton Dickinson</b>	142
<b>Stryker Medical</b>	141
<b>Abbott Laboratories</b>	132
<b>Laboratory Corp. of America</b>	122
<b>Roche</b>	87
<b>Medtronic</b>	82
<b>Celgene</b>	76
<b>Grifols</b>	71
<b>West Pharmaceutical Services</b>	52
<b>Novartis</b>	51

Since 2006, employment within Arizona's life sciences industry has primarily been composed of *Medical Device, Research & Medical Testing Labs*, as well as *Bioscience Distributors*. *Drugs & Pharmaceutical* employment increased by 38% from 2006 – 2016, while *Bioscience Distributor* employment decreased by 28%.

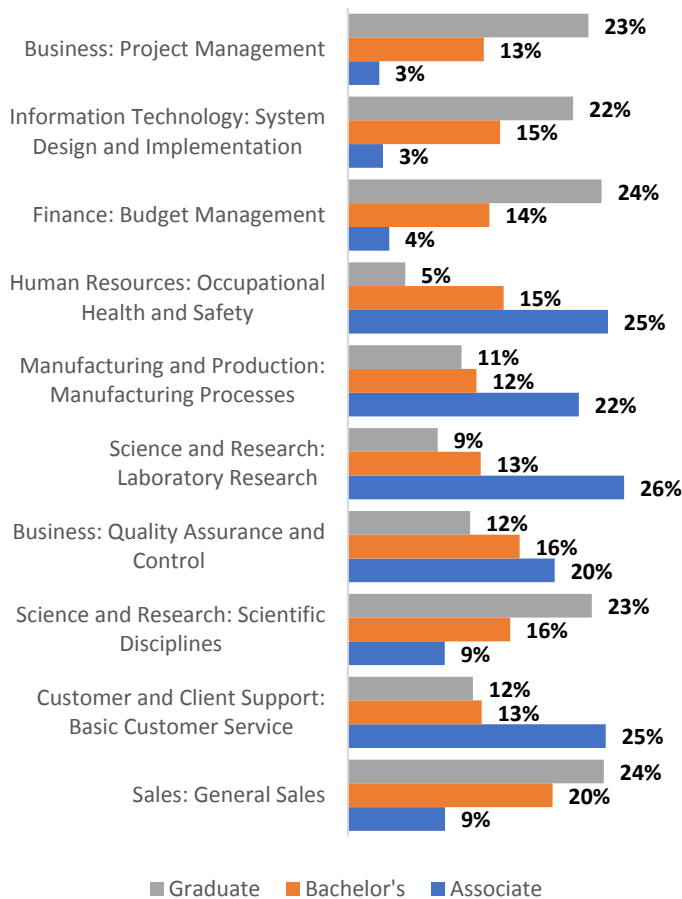
When adjusting for the size of the total AZ economy, the adjusted annual growth in industry openings was negative in most years.

Job listings data has indicated that STEM openings throughout the industry have inched upwards since 2010.

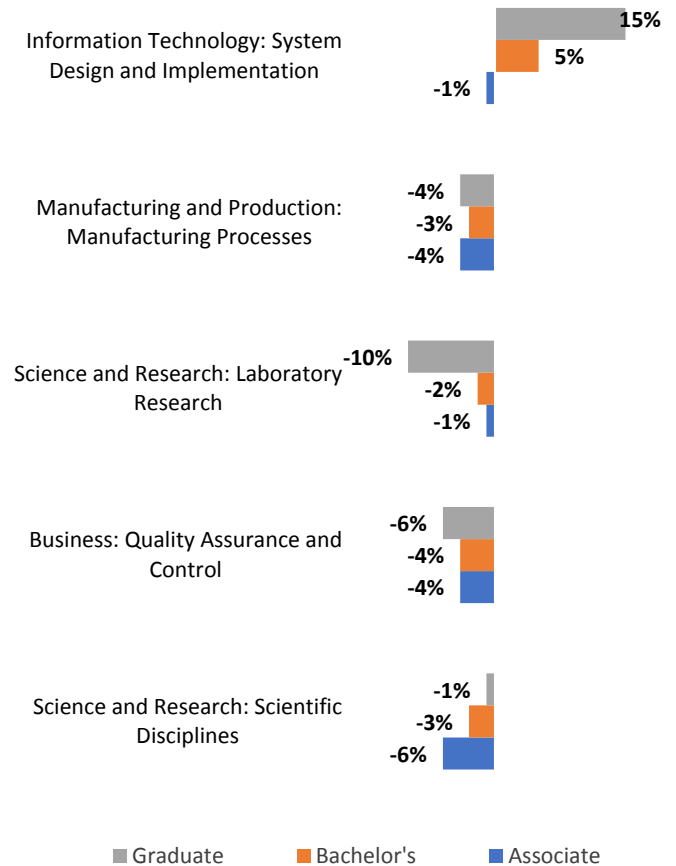
Many of the most common STEM job openings are for positions in Engineering, Technical Sales, and Laboratory work.

About one-third of these positions are available to job candidates with less than a four-year degree. Only 4% of STEM openings in the past two years require attainment of a graduate degree.

## Top Skill Clusters By Degree Level



## Key Skill Demand Growth By Degree Level Since 2010-11



Research conducted by **MassBioEd**. Data extracted using *Burning Glass Labor Insight*.

Of critical importance is understanding the in-demand skills required of open positions.

Here, we break up STEM-related openings by their required level of education for the years of 2016 and 2017.

Skills are broken up into three “buckets;” specialized skills & techniques, broad skills clusters, and “soft” skills. Growth is ranked by *percentage-point increase*.

Many of these skill demands can be augmented and addressed through alignment of curricula and learning outcomes at area community colleges and universities with industry needs. Graduates who fill many of these openings stand to improve their standing in the job market as a result.

Soft Skills	Associate	Bachelor's	Graduate
Problem Solving	+23%	+11%	+3%
Communication Skills	+17%	+4%	+11%
Team Work/ Collaboration	+7%	+8%	+13%
Decision Making	+4%	+4%	+4%
Organizational Skills	+8%	+5%	-1%
Planning	+4%	0%	+8%
Multi-Tasking	+8%	+3%	0%
Specialized Skills	Associate	Bachelor's	Graduate
Systems Engineering	0%	+3%	+10%
LINUX	+1%	+5%	+7%
Electrical Engineering	+1%	+2%	+9%
Software Development	0%	+5%	+7%
Mechanical Engineering	0%	+3%	+9%
Project Management	+1%	+3%	+6%
SQL	+6%	+3%	+1%