RESEARCH REPORT

CompTIA

Cyberstates 2017™

The definitive national, state, and city analysis of the U.S. tech industry and tech workforce

Jobs / Wages / Payroll / Establishments / Industry sectors / Wage differential / Tech concentration

COPYRIGHT PAGE

CYBERSTATES 2017™
IS PRODUCED BY
The Computing Technology Industry Association (CompTIA)

Printed in the U.S. March 2017

CompTIA is responsible for all content and analysis. Any questions regarding the report should be directed to CompTIA Research and Market Intelligence staff at research@comptia.org.

Cyberstates can be accessed online at CompTIA.org.

CompTIA
3500 Lacey Road, Suite 100
Downers Grove, IL 60515
Phone: (630) 678 - 8300

ABOUT

ABOUT THIS REPORT

The Computing Technology Industry Association (CompTIA) presents its 18th annual edition of *Cyberstates*. CompTIA designed this report to serve as a reference tool, making national, state, and metropolitan area-level data accessible to a wide range of users. *Cyberstates* quantifies the size and scope of the tech sector and the tech workforce across multiple vectors. To provide additional context, *Cyberstates* includes time-series trending, average wages, business establishments, job postings, gender ratios, tech patents and venture capital funding, and more. For the interactive, online version of *Cyberstates*, visit www.cyberstates.org.

As with any sector-level report, there are varying interpretations of what constitutes the tech sector and the tech workforce. Some of this variance may be attributed to the objectives of the author. Is the goal to depict the broadest possible representation of STEM and digital economy fields, or a more narrowly defined technology subset? Is the goal to capture all possible knowledge workers, or a more narrowly defined technology subset? For the purposes of this report, CompTIA focuses on the more narrowly defined technology subset. See the methodology section for details of the specific NAICS codes and SOC codes CompTIA uses in its definitions of the tech sector and the tech workforce.

ABOUT COMPTIA

The Computing Technology Industry Association (CompTIA) is the world's leading not-for-profit technology association. With approximately 2,000 member companies, 3,000 academic and training partners, over 100,000 registered users and more than 2 million IT certifications issued, CompTIA is dedicated to serving the tech industry and tech workforce through education and training programs, market intelligence, social innovation, and more.

Through its public advocacy efforts, CompTIA champions member-driven business and IT priorities that impact the continuum of information technology companies – from small IT service providers and software developers to large equipment manufacturers and communications service providers. CompTIA gives eyes, ears and a voice to technology companies, allowing them to quickly and comprehensively understand policy developments – and then do something about it. CompTIA fosters an environment for members to succeed in information technology through comprehensive global, national and regional advocacy as well as high-level business intelligence that delivers an edge in the marketplace.

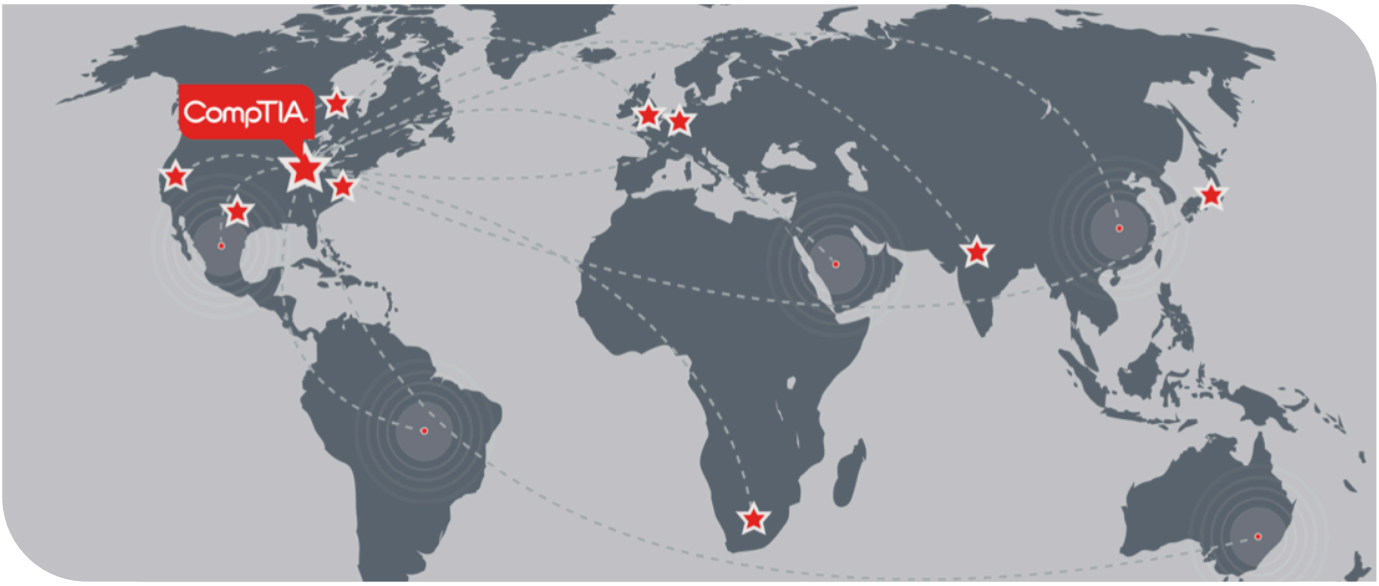


TABLE OF CONTENTS

BACKGROUND – KEY FORCES SHAPING THE TECH LANDSCAPE

By just about every measure, technology continues to shape the world around us in evermore interesting and sometimes unsettling ways. With the groundwork of cloud, mobility, data and connectivity laid, the year ahead will see evolutionary advances on many fronts. Digital business transformation remains a driving force across the economy, setting the stage for another year of innovation, growth, and of course, a few surprises.

CompTIA's *IT Industry Outlook 2017* outlines the key trends in the tech sector and tech workforce in the year ahead. For more detail beyond the snapshots below, see the report at comptia.org.

The Tools of the Cloud Era Emerge

CompTIA has described the evolution of IT in three stages: the mainframe era, the PC/Internet era, and the cloud/mobile era. There are many factors that define distinct eras, but the end result is a new foundational platform that supports new tools and techniques. Moving forward, new elements built from a cloud mindset will play larger roles. This may range from software-defined hyperconverged infrastructure to Blockchain and machine learning, adding new layers for technology interaction.

IoT Transforms Physical Environments and Social Convention

Beyond the buzz and the backlash, the Internet of Things is primed to be a massive disruptor. As physical objects gain intelligence and connectivity, new opportunities will rise across all industries. The transition will take time, though. The pace of technology has accelerated, but the complexity of IoT and the regulations and protocols required for integration will drive a long adoption cycle.

Workers Push the Boundaries of 'Bring Your Own Collaboration'

Workforce dynamics continue to evolve. Many factors play a role: basic demographic shifts, the growth of telecommuting and remote work arrangements, and more team-oriented organizational hierarchies. At every stage, technology has been both a driver and facilitator of these workplace changes. Of late, an ever-increasing array of new collaboration and communication tools has further changed the equation.

Debate Intensifies Over Technology's Impact on Employment

The debate over the impact of technology on employment has ebbed and flowed for more than 200 years. While technology routinely destroys jobs – often those with dirty, dangerous, or dull characteristics – the historical record is one of job creation offsetting the losses. Is the situation the same today? While emerging examples suggest a future where technology could complement and multiply human effort, there are still many unknowns and it will be some time before these issues come into focus.

Data Teams Bridge the Gap Between IT and Business

In *A Functional IT Framework*, CompTIA found four primary domains that form the overall IT function: Infrastructure, Development, Security, and Data. Of these, data is currently the least likely to be handled by a standalone team. But that may change soon. As the demands on data grow (in both quantity and complexity), organizations will experiment with new approaches to harness the power data.

Security Gets Worse Before It Gets Better

The DDoS attack on DNS provider Dyn placed security back in the spotlight thanks to the nature of the target and the use of connected security cameras as botnet attackers. However, another theme emerged from the aftermath of that attack: massive security incidents are not yet driving companies to revolutionize their security approach. The headline-making breaches of the past three years have not put companies out of business, and research studies show that most firms are not fully prepared for a cyberattack.

The Blended Workforce Takes on New Meaning

The blended workforce – the mechanism of using temporary or contract workers alongside permanent full-time employees – has been a mainstay in the world of work for years. Today, new elements are poised to reshape the concept of the blended workforce. Beyond the blending of different types of workers through "gig" platforms, blending may increasingly involve the use of artificial intelligence, bots, virtual assistants, and other types of knowledge-based systems.

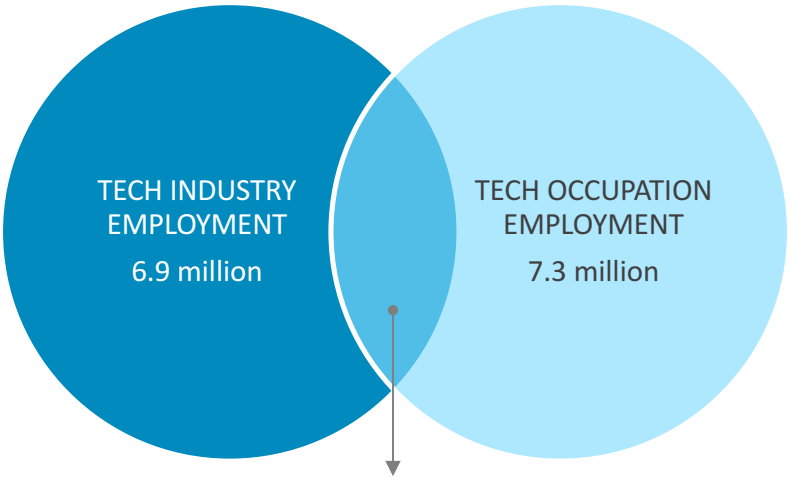
Skills Gap Grows in Scope and Nuance, Forcing Organizations to Rethink Workforce Strategies

Given the breadth and pace of innovation, all signs point to a widening skills gap. This will put further pressure on organizations of all sizes to rethink their workforce strategies. While the notion of a skills gap is a seemingly straightforward concept, below the surface, there are many nuances to the story. This CompTIA research brief explores these issues, setting the stage for approaches to tackling the IT skills gap.

BACKGROUND – COMPONENTS OF THE TECH WORKFORCE DISCUSSION

The tech workforce consists of two primary components. Tech sector employment encompasses all the workers employed by tech companies, including positions that are technical, as well as all the supporting positions. Tech occupation employment consists of the technology specialists employed by organizations ranging from hospitals and banks to retail stores and utilities. The tech sector is the largest employer of tech occupations.

In addition to these core components, there are a number of other categories of workers that factor into the workforce discussion. These include self employed, sole proprietor, and gig workers, as well as knowledge workers and non-tech firm companies engaged in technology initiatives.



49% of tech industry jobs are in tech occupations

Self-Employed Tech Sector Workers

1.1 million: approximate number of self-employed and sole proprietor workers in 2016 classified as non-employer entities by the BLS. After the past few years, the term 'gig' worker has entered the lexicon. Typically, gig work is procured from anyone of a growing number of gig matchmaking platforms. The IT services and custom software services category is the largest category, representing 39 percent of self-employed and sole proprietor tech sector workers.

Non Tech Firms with a Presence in Technology

N: there are N number of non-tech firms engaged in what could be considered a tech initiative. Examples may include an automotive company engaged in IoT, a finance company selling AI-based analytics, or a retailer with a mobile app subsidiary. Unfortunately, there is not a great methodology for sizing the number of workers within these companies engaged in tech pursuits.

Knowledge Workers

10-15 million: estimate of the number of workers engaged in occupations where technology use is a critical component of the job. Occupations such as graphic designer, business analyst, technical writer, logistics specialist, and related, rely heavily on software applications, mobile devices, data, and other tools of the trade. knowledge workers use technology intensely, well beyond basic tasks such as checking email or browsing the web.

Self-Employed Tech Occupation Workers

943,000: approximate number of self-employed and sole proprietors classified as non-employer entities by the BLS. The IT services and custom software services category is the largest category, representing 39 percent of self-employed and sole proprietor tech workers.

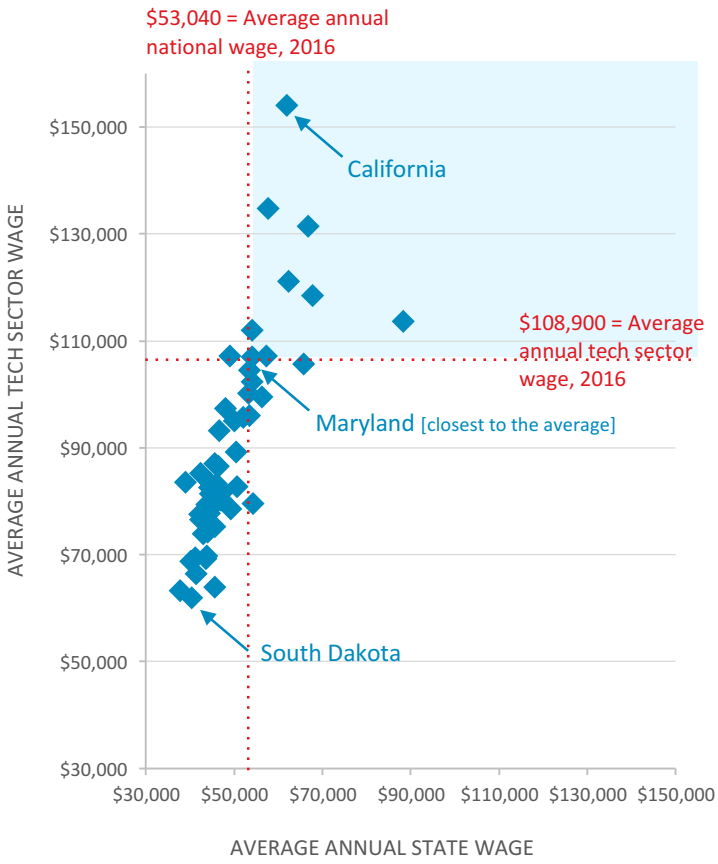
In the aggregate, more than 25 million U.S. workers can be characterized as a tech sector, tech occupation, or knowledge worker

BACKGROUND – FACTORS TO CONSIDER WHEN USING AVERAGE WAGE DATA

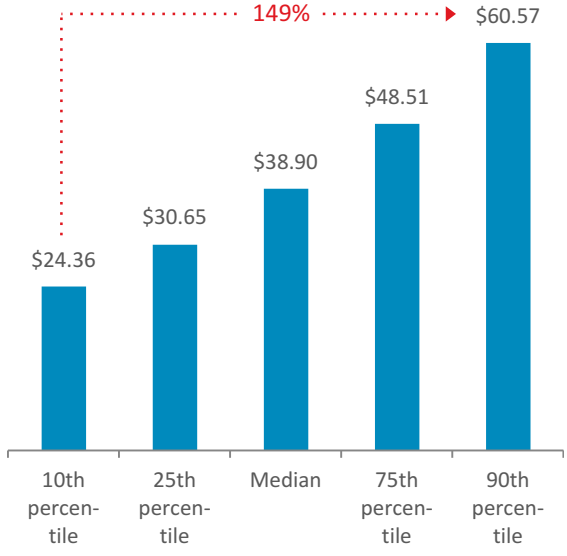
KEY POINTS

- The average – also referred to as the mean – is a useful starting point in data analysis. However, it should not be used in isolation. Averages are affected by the distribution of data, especially points at the very high or very low end of the range.
- In the case of tech sector and tech occupation wages, there are data points that fall into the category of being on the high end of the range, thereby affecting the average.
- California accounts for 24 percent of the national tech sector payroll and 17 percent of tech sector workers. The state is so large relative to the others, that it exerts a significant upward pull on tech sector wages. As depicted in the chart to the right, California sits well above the average tech sector wage of $108,900. When excluding California from the calculation, the average wage falls to $99,540.
- The other states with tech sector wages exceeding the national average are Washington, Massachusetts, New Jersey, New York, and Virginia. Similar to California, these states are large enough to exert a significant upward pull on the average. To further put into perspective, 86 percent of states have an average tech sector wage below the aggregate average.
- The Bureau of Labor Statistics compiles its wage data from each state, and for most states, wages include bonuses, stock options, profit distributions, and other cash value compensation. The highest paid tech CEO in 2016 reportedly earned $53 million in total compensation. This is another example of an outlier data point influencing the mean.
- The very high average wage in the leading states is impressive, but it should be viewed in the context of cost of living. The buying power of a salary in New York City will be far lower than in a lower cost city such as Indianapolis. According to the National Association of Realtors, the median price for a home in Silicon Valley topped $1 million last year.
- Beyond location, the other important variables to consider when reviewing wage data are job role, areas of expertise, job experience, industry sector, and company size. A skilled employee in a hot field such as machine learning, working for a Fortune 500 company, will earn on average far more than a tech worker in an established field such as IT support, working for a small non-profit museum.
- Relatedly, the tech sector average wage reflects technical and non-technical positions. The average for technical roles tends to exceed non-technical roles when accounting for job level and experience. For example, a mid-tier software developer may earn substantially more than a mid-tier marketing professional or operations manager.
- Within tech occupations, a comparison of workers at the 90th percentile of compensation and the 10th percentile yields a differential of 149 percent. Over the past three years, the largest share of wage growth has gone to technology professionals in the 75th and 90th percentiles.

TECH SECTOR AVG. WAGE VS. OVERALL AVG. WAGE MATRIX

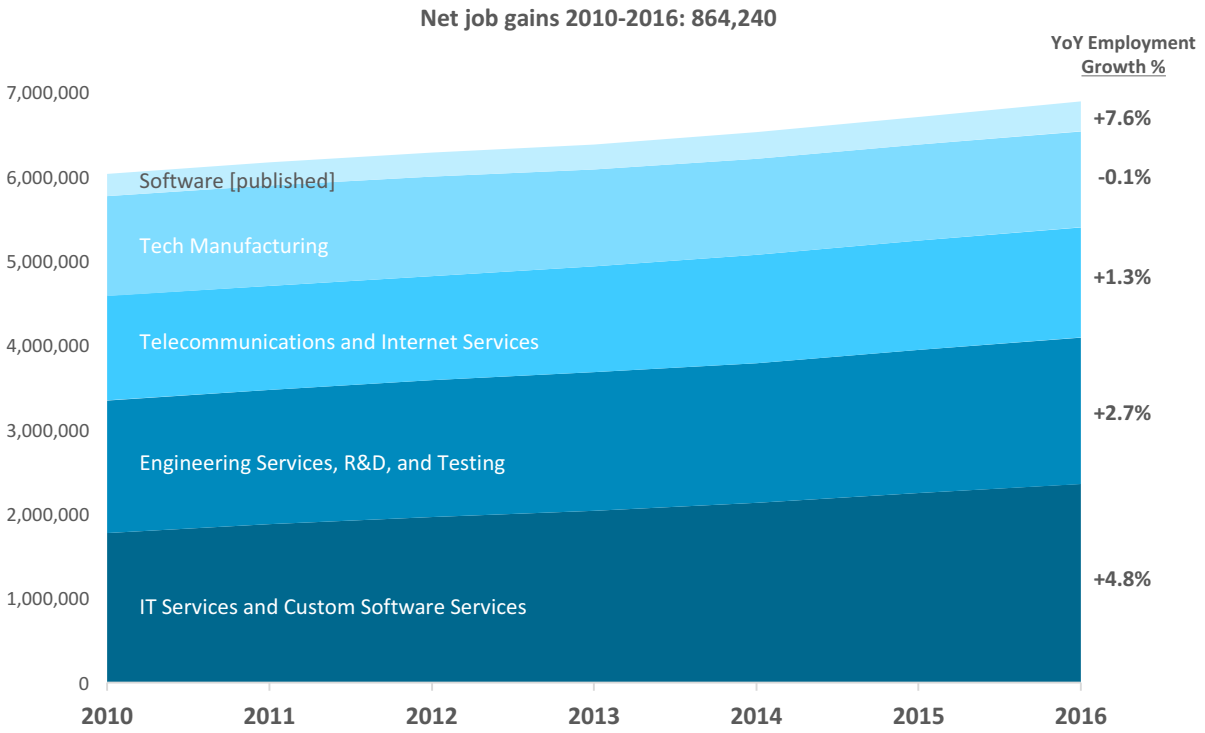


TECH OCCUPATION HOURLY WAGE DISTRIBUTION



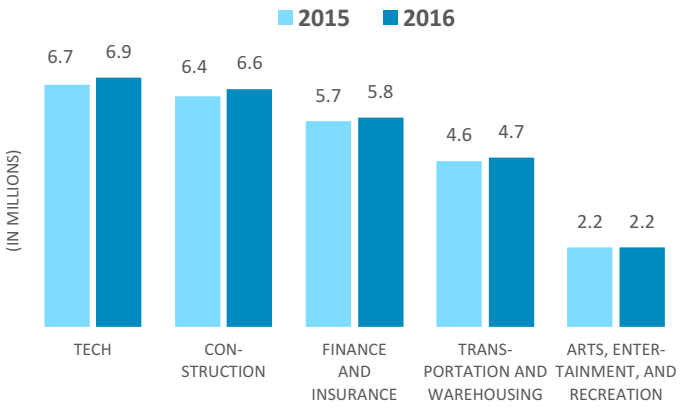
BACKGROUND – TECH INDUSTRY TRENDING AND COMPARISONS

TECH INDUSTRY EMPLOYMENT TRENDING

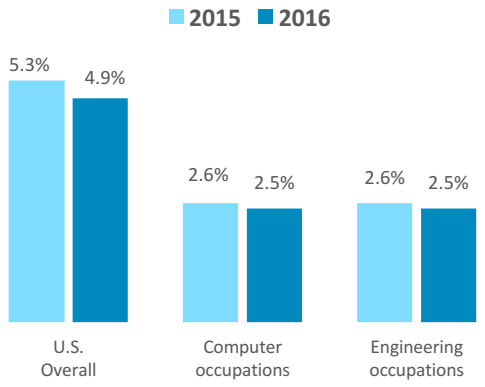


PROVIDING CONTEXT THROUGH COMPARISONS

Tech Sector Employment vs. Other Industry Sectors



Unemployment Rate by Occupation



Sources: EMSI | U.S. Bureau of Labor Statistics | Select data are rounded

KEY FINDINGS – NATIONAL

U.S. TECH INDUSTRY EMPLOYMENT

- U.S. tech sector employment totaled an estimated 6.9 million in 2016, an increase of 182,220 workers from 6.7 million in 2015. Tech industry employment grew an estimated 2.7 percent year-over-year.
- The tech sector accounted for approximately 4.4 percent of the overall U.S. workforce in 2016, and 5.2 percent of the private sector workforce. As noted previously, because of the blurring of lines across industries, there is a degree of undercounting in tech sector employment as a percentage of U.S. employment.
- Tech manufacturing employment totaled an estimated 1.14 million in 2016, a slight decrease of 1,420 jobs from the previous year. In comparison, the overall U.S. manufacturing sector edged up fractionally, 0.1 percent.
- Among the seven major tech manufacturing subsectors, two experienced employment gains, while the remaining categories experienced job losses. The computer and peripheral equipment manufacturing had the highest rate of employment growth at 4.4 percent, followed by semiconductor manufacturing.
- Employment in the telecommunications and Internet services sector totaled an estimated 1.3 million in 2016, up by 16,610 from 2015. These job gains were driven entirely by growth in the data processing, hosting, and search portal services categories, where employment increased by 35,475 jobs. Wired and wireless telecommunications services shed 14,100 jobs, a loss of 2.0 percent.
- The software category, consisting of published or packaged software products, rather than custom developed software, employed an estimated 357,410 workers in 2016, adding more than 25,000 net-new jobs. On a percent change basis, software led the tech sector with an impressive 7.6 percent year-over-year growth rate.
- The IT services and custom software services subsector generated the largest numerical gain in employment, adding nearly 110,000 net-new jobs in 2016. This gain of 5.7 percent increased the employment basis to 2.02 million. This growth reflects the ongoing digital transformations occurring across the economy and the corresponding need for expertise in areas such as cloud computing migration, application integration, business process automation, data analytics, and security.

U.S. TECH INDUSTRY WAGES

- The compensation of U.S. tech industry workers continues to reflect the strong demand for their skill sets and expertise. Annualized average wages were an estimated $108,900 in 2016. On a nominal basis, average wages increased by 0.6 percent. When adjusting for inflation, wages fell 0.7 percent.
- As discussed in the wage background summary on page 7, there are a number of considerations when evaluating tech wages. For one, there can be significant variance in wages based on location, occupation, industry, and subsector. For example, average wages range from $201,380 for Internet and search portal services on the high end to $39,170 for consumer electronics repair on the low end.
- The average tech sector wage was more than double – 105 percent higher, the average national wage of $53,130 in 2016.
- The software subsector earned the highest average annual wage, topping the $150,000 mark for the first time, an inflation-adjusted increase of 0.6 year-over-year. The IT services and custom software services category accounted for $101.6 billion in total payroll, the largest component of overall tech sector payroll.

U.S. TECH SECTOR EMPLOYMENT

	2015	2016 est.	Numeric Change
Tech Manufacturing	1,139,310	1,137,890	-1,420
Telecommunications and Internet Services	1,290,560	1,307,170	+16,610
Software [packaged]	332,270	357,410	+25,140
IT Services & Custom Software services	2,246,890	2,355,820	+108,930
Engineering Services, R&D, and Testing	1,702,100	1,735,070	+32,970
Total	**6,711,140**	**6,893,360**	**182,220**

ANNUAL NET JOB CHANGE

	2013-2014	2014-2015	2015-2016
Tech Manufacturing	-15,250	+4,360	-1,420
Telecommunications and Internet Services	+32,810	+1,450	+16,610
Software [packaged]	+14,080	+21,370	+25,140
IT Services & Custom Software Services	+87,650	+117,200	+108,930
Engineering Services, R&D, and Testing	+19,770	+42,980	+32,970
Total	**+139,040**	**+187,380**	**+182,220**

AVERAGE ANNUAL TECH SECTOR WAGES

	2015	2016	Percent Change
Tech Manufacturing	$111,700	$111,600	-0.1%
Telecommunications and Internet Services	$104,400	$107,700	+3.2%
Software [packaged]	$149,200	$150,100	+0.6%
IT Services & Custom Software Services	$107,500	$106,800	-0.7%
Engineering Services, R&D, and Testing	$107,500	$104,100	-3.2%
Total	**$109,700**	**$108,900**	**-0.7%**

Source: EMSI | U.S. Bureau of Labor Statistics
Some numeric changes affected by rounding

KEY FINDINGS – NATIONAL

U.S. TECH OCCUPATION EMPLOYMENT

- Tech occupation jobs reached an estimated 7.29 million workers in 2016, translating to growth of 2.0 percent.
- The IT occupations segment of tech occupations accounts for 62 percent of the total. IT occupations added over 115,000 net-new jobs in 2016, a year-over-year growth rate of 2.6 percent. On a numeric basis, software developers, computer systems analysts, and IT support specialists recorded the largest gains in employment. These four occupations added 71,450 new jobs, accounting for over half of the total gains employment.
- The greatest percentage of tech occupation jobs are found in the tech sector. Approximately 46 percent of the tech sector workforce consists of tech occupation jobs. The remaining 54 percent consists of all of the other supporting positions required to run a business – think sales, HR, and finance, for example.

U.S. INNOVATION

- Patents granted in the tech categories of computing technology, which includes digital processing systems and information security, semiconductors, and telecommunications, totaled 52,434 in 2015, the most recent year of available data. The largest drop came in the computing technology segment, where 4,875 fewer patents were granted, a year-over-year decline of 13.2 percent.
- The number of tech startups and new tech business establishments increased to 36,508 in 2015, a gain of 12 percent. Growth was driven largely by gains in IT services, with nearly 1,800 new firms (13 percent increase), and the category covering data processing, hosting, web search portals, and related services, which added 1,281 new firms (79 percent increase).

U.S. TECH BUSINESS ESTABLISHMENTS [firms with payroll]

- U.S. tech business establishments totaled 492,550 in 2016, an increase of 1.2 percent over 2015. This is the fifth consecutive year of growth in the number of tech business establishments. Note: a tech business establishment is a business location. The vast majority of tech firms have a single establishment, which means an establishment is a reasonably close approximation of the number of tech companies.
- Tech business establishments accounted for 5.1 percent of all business establishments and 5.3 percent of private sector establishments in the United States. Mirroring the pyramid pattern seen in most industries throughout the U.S. economy, the tech sector has a broad base of small businesses, which then narrows to a relatively small percentage of large businesses.
- On a percent change basis, the packaged software sector experienced the largest gain, at 7.9 percent. Over the past five years, this software category added 7,716 new business establishments, a growth rate of 69 percent.
- On a numeric basis, IT services and custom software services added the most new tech business establishments in 2016, at 5,080. Over the past five years, this subsector added 48,826 new business establishments, a growth rate of 24.3 percent.

U.S. TECH OCCUPATIONS

	2015	2016	Numeric Change
IT Occupations	4,437,740	4,552,790	+115,050
Engineering and Technician Occupations	2,710,050	2,737,080	+27,030
Total	**7,147,790**	**7,289,870**	**142,090**

U.S. INNOVATION

	2014	2015	Numeric Change
Tech Patents	59,468	52,434	-7,034
Tech Startups / New Tech Business Establishments	32,490	36,508	+4,018

U.S. TECH BUSINESS ESTABLISHMENTS [firms with payroll]

	2015	2016	Numeric Change
Tech Manufacturing	19,960	19,970	+10
Telecommunications and Internet Services	66,850	67,800	+950
Software [packaged]	17,500	18,880	+1,380
IT Services & Custom Software Services	275,450	280,530	+5,080
Engineering Services, R&D, and Testing	104,120	105,370	+1,250
Total	**483,870**	**492,550**	**8,680**

Source: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | U.S. Patent & Trademark Office | Hoovers
Some numeric changes affected by rounding

KEY FINDINGS – STATES

STATE EMPLOYMENT

- California is the largest state in the nation by a wide margin. Its population is 46 percent larger and its economy is 49 percent larger than second place Texas. California's economy is equal to the combined total of the bottom 25 states. Hence, California is the leader in many Cyberstates categories.
- The California tech sector employed an estimated 1,186,470 workers in 2016, a gain of 48,600 net new jobs year-over-year. Since 2010, California has added over 212,000 tech sector workers. Other states that experienced notable tech sector employment gains include New York, North Carolina, Texas, and Michigan.
- On a percent change basis, the top five states for job growth in 2016 were Utah (6.0 percent), North Carolina (5.9 percent), Michigan (5.1 percent), Washington (4.9 percent), and Montana (4.5 percent).
- Thirty-six states generated positive tech sector job growth, while the remaining 15 states experienced job losses. The largest declines hit Delaware, Kansas, Iowa, Tennessee, and Mississippi.
- Beyond nominal metrics, relative metrics provide additional insights. Massachusetts has the highest concentration (8.7 percent) of tech sector workers relative to its overall employment base. Colorado ranks second at 7.8 percent and Virginia third at 7.7 percent.

STATE WAGES AND PAYROLL

- California continued to lead the nation with the highest average annual wage for tech sector workers at an estimated $154,000 in 2016.
- Among the top five states for average tech sector wages, two states experienced inflation-adjusted increases, while three experienced decreases. The inflation-adjusted average wage in Washington was up 2.1 percent; in New York, the increase was 1.9 percent.
- The states with the lowest average tech sector wages include: South Dakota, Mississippi, Wyoming, West Virginia, and Montana.
- Every state in the union had technology workers earning significantly more than the average wage for the state. The wage differential was narrowest in the District Columbia, where tech sector workers earned 29 percent more than the average worker. At the other end of the scale, California tech sector workers earned 148% more than average worker in the state. The median differential was recorded by Nevada at 80.5 percent. See wage background summary on page 7 for more detail on the factors influencing average wage data.
- Total payroll in the tech sector reached an estimated $750.8 billion in 2016, an increase of nearly $15 billion over 2015, adjusted for inflation.
- California's tech sector payroll was an estimated $182.7 billion in 2016, accounting for nearly a quarter of total tech sector payroll across the nation.

TOP CYBERSTATES BY TECH SECTOR EMPLOYMENT

1.	California	1,186,470
2.	Texas	592,960
3.	New York	377,740
4.	Florida	318,340
5.	Massachusetts	300,630

TOP AND BOTTOM CYBERSTATES BY NUMERIC TECH EMPLOYMENT GROWTH

1.	California	+48,580
2.	New York	+11,210
3.	North Carolina	+11,090
4.	Texas	+11,060
5.	Michigan	+10,730
47.	Mississippi	-440
48.	Tennessee	-590
49.	Iowa	-830
50.	Kansas	-840
51.	Delaware	-1,990

TOP CYBERSTATES BY AVERAGE ANNUAL TECH SECTOR WAGES

1.	California	$154,000
2.	Washington	$134,800
3.	Massachusetts	$131,300
4.	New Jersey	$121,100
5.	New York	$118,400

Source: EMSI | U.S. Bureau of Labor Statistics
Some numeric changes affected by rounding

KEY FINDINGS – STATES

STATE INNOVATION

- 2015 was a tough year for tech patents. The most recently available data from the U.S. Patent and Trademark Office indicates that the number of tech patents granted fell for nearly every state from the previous year. California retained the top position with 20,397 tech patents granted, accounting for 39 percent of patents nationwide. Rounding out the top five states for tech patents were Texas, Washington, New York, and Massachusetts.
- The other component of the Cyberstates' innovation score is the number of tech startups and new tech business establishments. For continuity with the patent data, 2015 is the reference year used. On a nominal basis, California, Texas, Florida, New York, and Virginia had the highest number of tech startups and new tech business establishments. These five states accounted for 47 percent of all tech startups and new business establishments for the year. Note: offsetting the number of tech startups and new business establishments are closures, so the net-new number will be smaller than that reported in Cyberstates.
- Per capita, California earned the top spot for innovation, followed by Massachusetts, Washington, Colorado, and New Jersey. The methodology used by Cyberstates combines tech patents and tech startup/new tech business establishment data and then factors in the size of the state, based on population.

STATE TECH BUSINESS ESTABLISHMENTS

- Nearly every state added to their base of tech business establishments. Twenty-one states experienced establishment growth of at least 2 percent.
- On a numeric basis, Texas had the largest year-over-year increase of net-new tech business establishments (911). Rounding out the top five for net-new tech business establishments were California, Florida, Virginia, and New Jersey.

STATE TECH ECONOMIC IMPACT

- Economic impact is an assessment of output – the dollar value of goods and services produced during a given year. As a percentage of the overall U.S. economy, the tech industry accounts for about 7.5 percent of direct economic value, which translates to over $1.3 trillion.
- In addition to the direct economic impact, there are downstream, indirect benefits of the technology industry. One way to assess this impact is through the use of job multiplier metrics, also referred to as input-output modeling. For example, the IT services and custom software development services category has an estimated jobs multiplier of 4.8. For every one job in this tech subsector, an estimated 4.8 jobs are created or supported through direct, indirect, or induced means.

STATE EMPLOYMENT CHARACTERISTICS

- Nationally, the composition of the tech sector workforce in 2016 consisted of 4.5 million men and 2.3 million women, translating to 66 percent and 34 percent, respectively. The percentage distribution was unchanged from 2015.
- The District of Columbia again had the highest representation of women in the tech sector workforce at 39.1 percent. Rounding out the top five were South Dakota, Mississippi, North Carolina, and Wisconsin.
- The tech occupation categories with the highest percentage of women include: assemblers, computer operators, database administrators, computer systems analysts, and information research scientists.

TOP CYBERSTATES BY INNOVATION PER CAPITA

1.	California	1st
2.	Massachusetts	2nd
3.	Washington	3rd
4.	Colorado	4th
5.	New Jersey	5th

TOP CYBERSTATES BY THE NUMBER OF TECH BUSINESS ESTABLISHMENTS

1.	California	51,140
2.	Texas	36,250
3.	Florida	30,720
4.	Illinois	24,350
5.	New York	24,330

TOP CYBERSTATES BY TECH ECONOMIC IMPACT AS A PERCENT OF OVERALL ECONOMY

1.	Oregon	18.0%
2.	Washington	13.2%
3.	Massachusetts	12.7%
4.	California	12.6%
5.	Colorado	11.5%

TOP CYBERSTATES BY PERCENT OF WOMEN EMPLOYED IN TECH SECTOR

1.	District of Columbia	39.1%
2.	South Dakota	38.4%
3.	Mississippi	37.8%
4.	North Carolina	36.6%
5.	Wisconsin	36.5%

Source: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | U.S. Patent & Trademark Office | Hoovers
Some numeric changes affected by rounding

KEY FINDINGS – METROPOLITAN STATISTICAL AREA (MSA)

METROPOLITAN AREA TECH SECTOR EMPLOYMENT

- The top five metropolitan areas employ over 1.5 million tech industry workers, or nearly 1 in 4 tech industry workers in the nation.
- New York City is the largest metropolitan area in the country by a wide margin. It follows that it also has the largest base of tech sector employment. While San Jose ranked 35th among MSAs based on 2016 population estimates, it holds the number two spot in tech sector employment.
- Outside of the top five, the next largest metropolitan areas for tech sector employment include San Francisco, Dallas, Chicago, and Seattle.

METROPOLITAN AREA EMPLOYMENT CONCENTRATION

- At nearly 30 percent, San Jose has the highest concentration of tech industry workers as a percentage of its overall employment base.
- Outside of the top five, the metropolitan areas with the highest concentration of tech sector employment as a percentage of the overall employment base include Washington DC, Seattle, Denver, San Diego, and Detroit.

METROPOLITAN AREA TECH BUSINESS ESTABLISHMENTS

- A large, dynamic base of business establishments, also referred to as company locations, is another measure of a healthy tech sector. The New York City metro area is home to over 24,000 tech business establishments.
- The vast majority of tech business establishments are categorized as small businesses under the Small Business Administration's definition of 1-500 employees.
- Outside of the top five, the next largest metropolitan areas for the number of tech sector business establishments include Dallas, San Francisco, Denver, Seattle, and Philadelphia.

METROPOLITAN AREA TECH WAGES

- More than any other metric, wages are closely tied to local labor market conditions. As described previously in the wage summary background on page 7, cost of living, industry concentration, company size, occupation mix, and related factors affect average wages. Keeping these factors in mind, the San Jose metro area boasts an average tech sector wage of $217,260.
- Relative to the prevailing wage in the metropolitan area, San Diego and Seattle tie for the top spot of having the highest tech sector wage premium at 115 percent. For perspective, cities such as Detroit, Nashville, and Cleveland also pay tech sector workers, on average, a significant premium over the mean local economy wage (64 percent, 61 percent, and 56 percent, respectively).

METROPOLITAN AREA TECH OCCUPATION CHARACTERISTICS

- The national average for the percent of women in the tech sector workforce was 34 percent in 2016. Among metropolitan areas, Memphis had the most balanced gender ratio with women representing 38 percent of its tech sector workforce. When drilling-down to specific occupations, approximately 43 percent of database administrators and 41 percent computer systems analysts in Memphis are women.

TOP CYBERCITIES BY TECH SECTOR EMPLOYMENT

1.	New York City MSA	392,400
2.	San Jose MSA	310,900
3.	Washington DC MSA	297,900
4.	Los Angeles MSA	287,600
5.	Boston MSA	263,500

TOP CYBERCITIES BY TECH SECTOR EMPLOYMENT CONCENTRATION

1.	San Jose MSA	29.6%
2.	Austin MSA	12.1%
3.	San Francisco MSA	11.5%
4.	Raleigh MSA	10.4%
5.	Boston MSA	10.2%

TOP CYBERCITIES BY TECH ESTABLISHMENTS

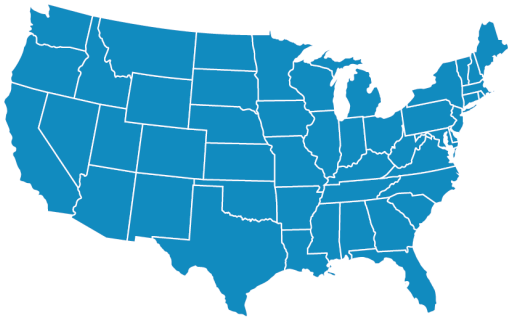
1.	New York City MSA	24,210
2.	Washington DC MSA	20,270
3.	Los Angeles MSA	14,580
4.	Chicago MSA	14,090
5.	Atlanta MSA	11,510

TOP CYBERSTATES BY AVERAGE ANNUAL TECH SECTOR WAGES

1.	San Jose MSA	$217,260
2.	San Francisco MSA	$168,920
3.	Seattle MSA	$145,460
4.	Boston MSA	$134,900
5.	New York City MSA	$130,720

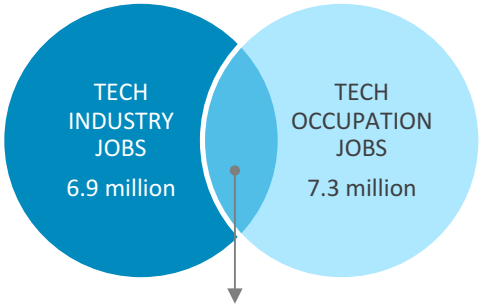
Source: EMSI | U.S. Bureau of Labor Statistics
Some numeric changes affected by rounding

United States



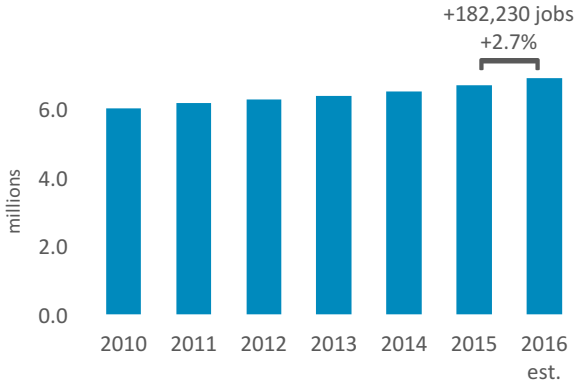
STATE OF TECHNOLOGY SUMMARY

6,893,360	TECH INDUSTRY EMPLOYMENT
492,550	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
$108,900	AVERAGE WAGE IN TECH INDUSTRY
4.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
626,560	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

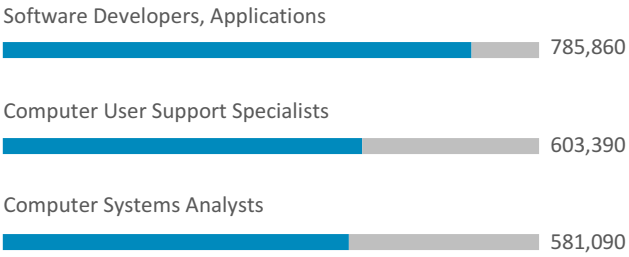


49% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

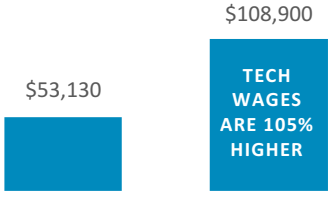
	2016	YoY % Change
IT Services + Custom Software Services	2,355,820	4.8%
Engineering, R&D, & Testing Services	1,735,070	1.9%
Telecommunications and Internet Services	1,307,170	1.3%
Tech Manufacturing	1,137,890	-0.1%
Software [packaged]	357,410	7.6%

ECONOMIC IMPACT

7.5%

Estimated direct contribution of the tech sector to the U.S. economy

TECH INDUSTRY WAGES

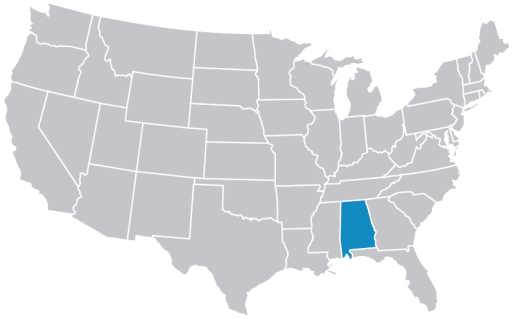


Average National Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

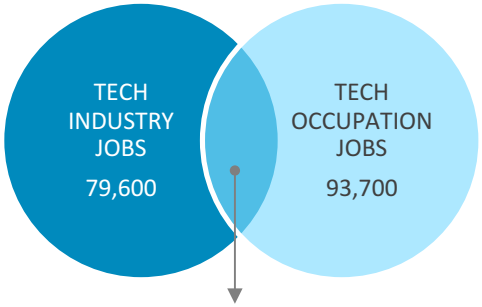
Alabama



STATE OF TECHNOLOGY SUMMARY

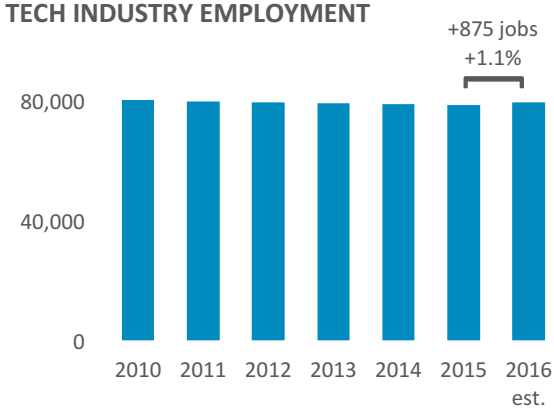
79,619	TECH INDUSTRY EMPLOYMENT
5,848	TECH BUSINESS ESTABLISHMENTS
$82,428	AVERAGE WAGE IN TECH INDUSTRY
4.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
7,234	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

24th	TECH EMPLOYMENT RANK
29th	AVERAGE TECH WAGE RANK
44th	INNOVATION RANK [per capita]

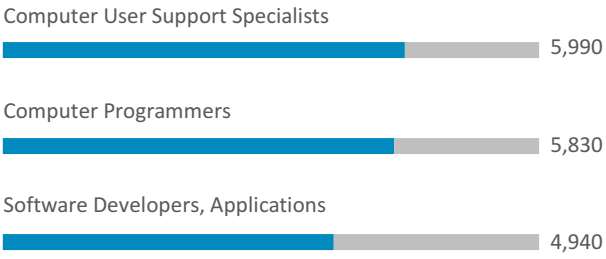


49% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

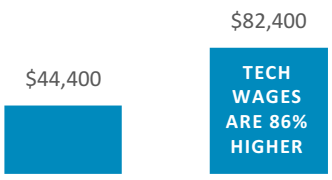
	2016	YoY % Change
IT Services + Custom Software Services	23,530	1.5%
Engineering Services	20,180	1.5%
Telecommunications Services	9,400	-4.6%
R&D and Testing Labs	7,630	6.6%
Space and Defense Systems Mfg.	4,230	0.4%

ECONOMIC IMPACT

5.5%

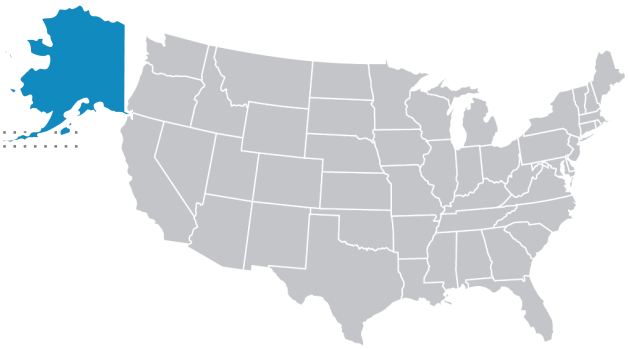
Estimated direct contribution of the tech sector to the Alabama economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

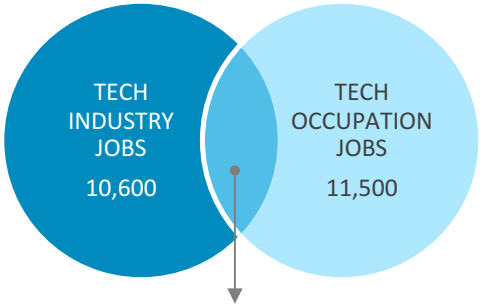
Alaska



STATE OF TECHNOLOGY SUMMARY

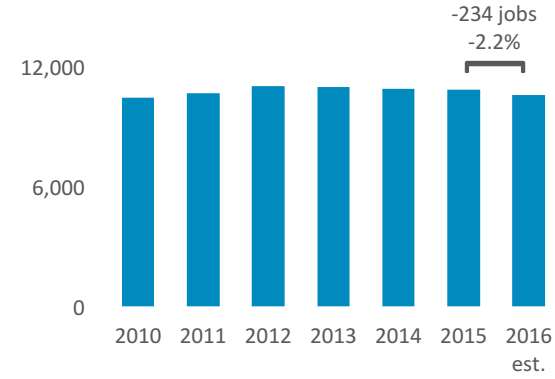
10,610	TECH INDUSTRY EMPLOYMENT
912	TECH BUSINESS ESTABLISHMENTS
$79,579	AVERAGE WAGE IN TECH INDUSTRY
3.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
813	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

49th	TECH EMPLOYMENT RANK
34th	AVERAGE TECH WAGE RANK
43rd	INNOVATION RANK [per capita]

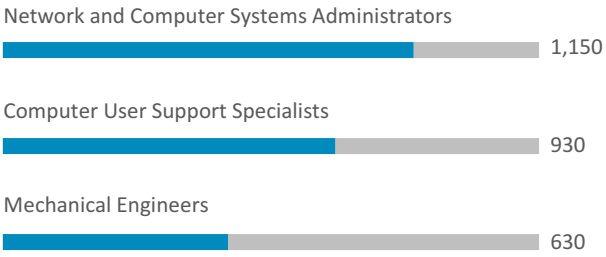


35% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

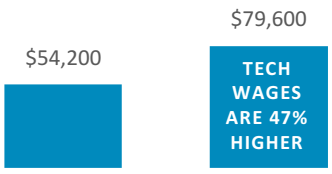
	2016	YoY % Change
Telecommunications Services	4,290	0.8%
Engineering Services	3,590	-6.6%
IT Services + Custom Software Services	1,200	-1.1%
R&D and Testing Labs	1,100	-2.8%
Computer and Electronics Repair	130	1.0%

ECONOMIC IMPACT

4.2%

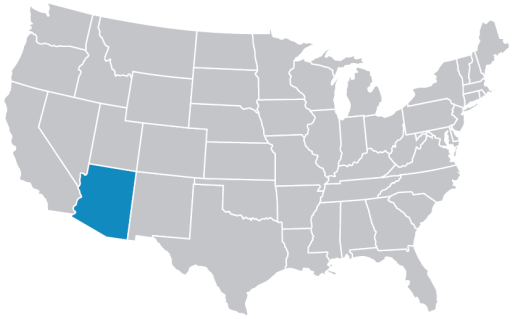
Estimated direct contribution of the tech sector to the Alaska economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

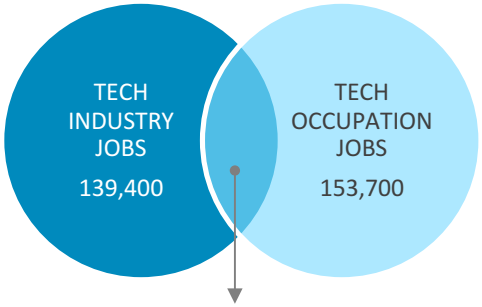
Arizona



STATE OF TECHNOLOGY SUMMARY

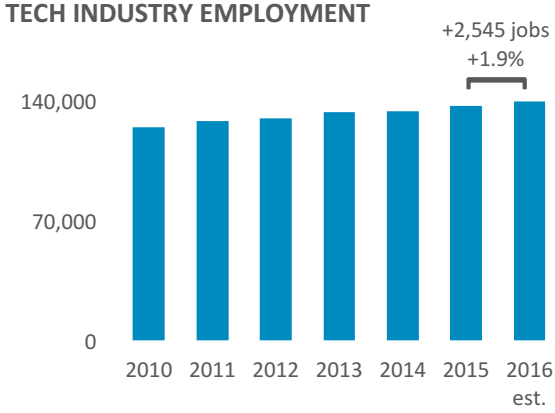
139,439	TECH INDUSTRY EMPLOYMENT
8,618	TECH BUSINESS ESTABLISHMENTS
$97,352	AVERAGE WAGE IN TECH INDUSTRY
5.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
13,237	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

18th	TECH EMPLOYMENT RANK
16th	AVERAGE TECH WAGE RANK
14th	INNOVATION RANK [per capita]

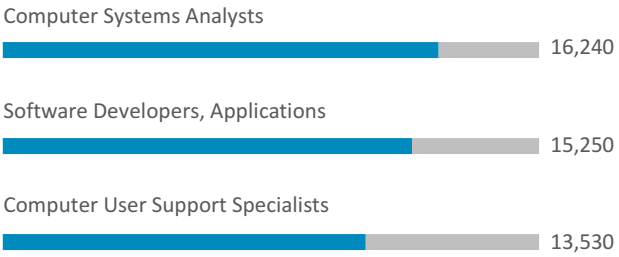


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

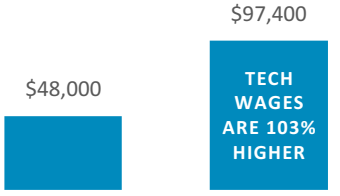
	2016	YoY % Change
IT Services + Custom Software Services	34,340	9.2%
Semiconductor Mfg.	19,140	-3.3%
Telecommunications Services	15,580	2.2%
Engineering Services	14,890	-4.4%
Space and Defense Systems Mfg.	11,850	3.2%

ECONOMIC IMPACT

8.6%

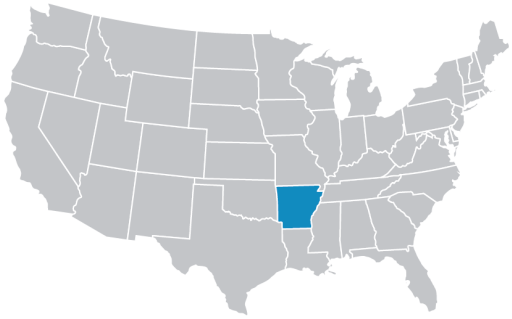
Estimated direct contribution of the tech sector to the Arizona economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

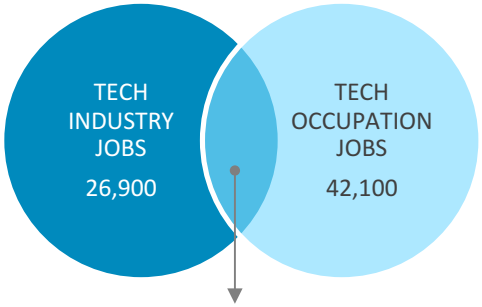
Arkansas



STATE OF TECHNOLOGY SUMMARY

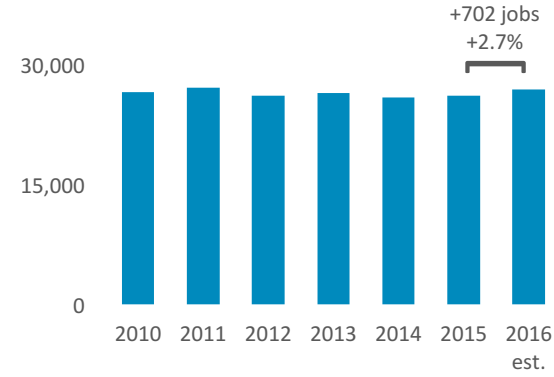
26,900	TECH INDUSTRY EMPLOYMENT
3,223	TECH BUSINESS ESTABLISHMENTS
$69,345	AVERAGE WAGE IN TECH INDUSTRY
2.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
2,536	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

39th	TECH EMPLOYMENT RANK
45th	AVERAGE TECH WAGE RANK
49th	INNOVATION RANK [per capita]

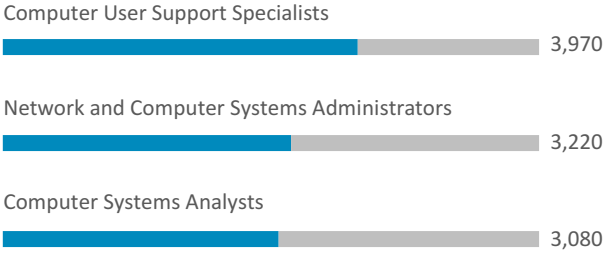


45% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

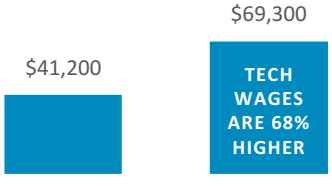
	2016	YoY % Change
IT Services + Custom Software Services	10,440	5.9%
Telecommunications Services	5,640	0.9%
Engineering Services	3,290	6.0%
R&D and Testing Labs	1,830	-1.7%
Internet Services	1,480	0.4%

ECONOMIC IMPACT

3.3%

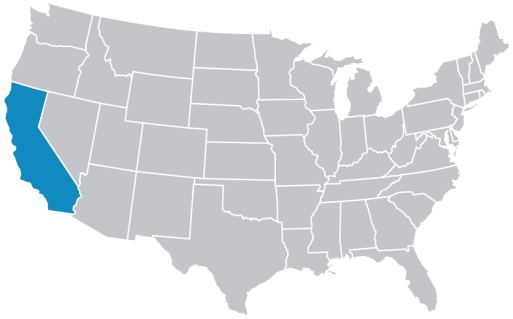
Estimated direct contribution of the tech sector to the Arkansas economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

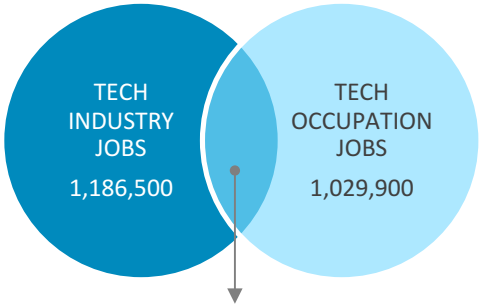
California



STATE OF TECHNOLOGY SUMMARY

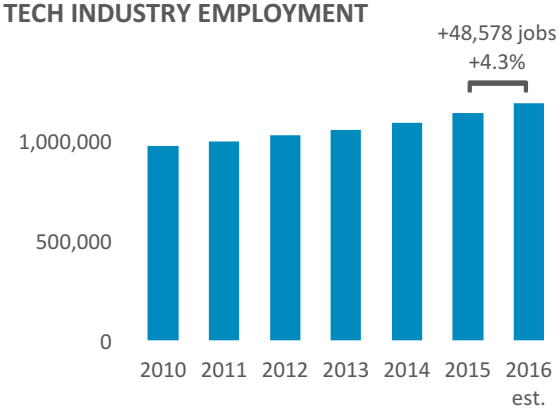
1,186,471	TECH INDUSTRY EMPLOYMENT
51,138	TECH BUSINESS ESTABLISHMENTS
$153,990	AVERAGE WAGE IN TECH INDUSTRY
7.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
88,637	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

1st	TECH EMPLOYMENT RANK
1st	AVERAGE TECH WAGE RANK
1st	INNOVATION RANK [per capita]

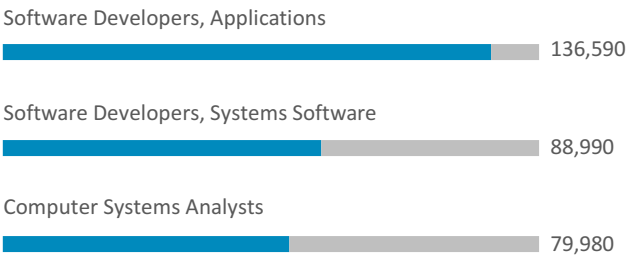


47% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	303,810	6.9%
R&D and Testing Labs	150,800	3.1%
Internet Services	129,370	17.4%
Engineering Services	108,620	-1.2%
Measuring and Control Instruments Mfg.	83,180	1.6%

ECONOMIC IMPACT

12.6%

Estimated direct contribution of the tech sector to the California economy

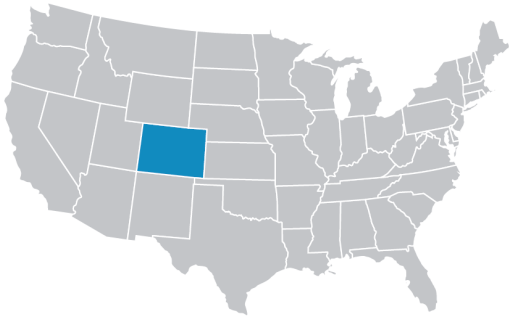
TECH INDUSTRY WAGES

Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

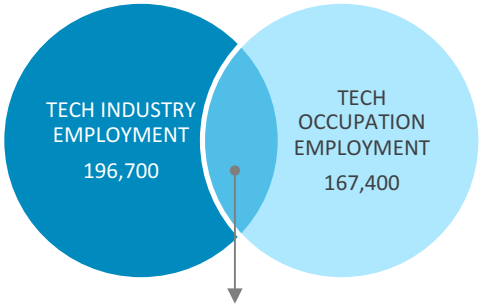
Colorado



STATE OF TECHNOLOGY SUMMARY

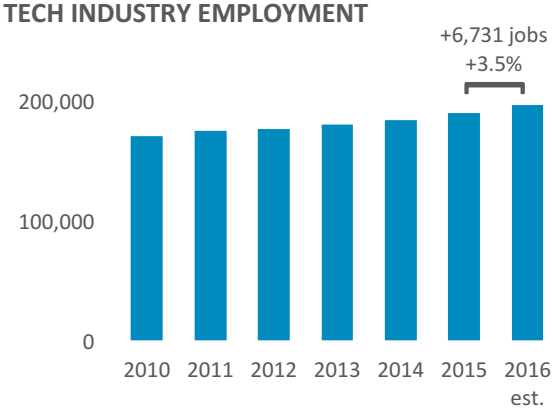
196,651	TECH INDUSTRY EMPLOYMENT
16,124	TECH BUSINESS ESTABLISHMENTS
$106.935	AVERAGE WAGE IN TECH INDUSTRY
7.8%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
16,406	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

14th	TECH EMPLOYMENT RANK
10th	AVERAGE TECH WAGE RANK
4th	INNOVATION RANK [per capita]

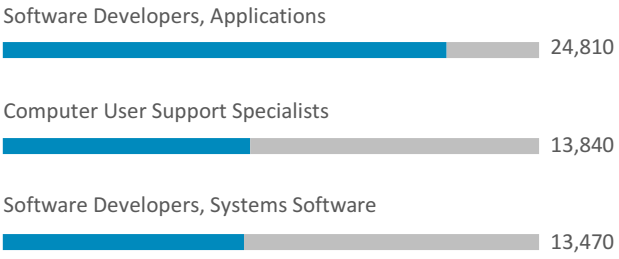


47% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	57,160	6.9%
Engineering Services	33,920	1.6%
Telecommunications Services	27,250	0.9%
R&D and Testing Labs	15,560	1.0%
Internet Services	12,780	7.4%

ECONOMIC IMPACT

11.5%

Estimated direct contribution of the tech sector to the Colorado economy

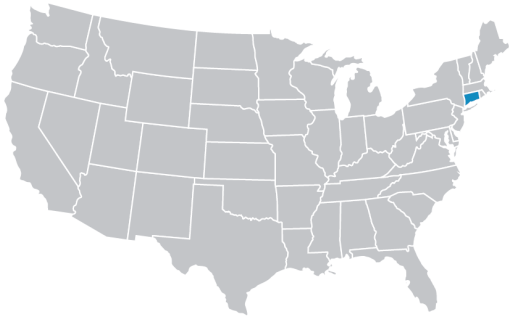
TECH INDUSTRY WAGES

Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

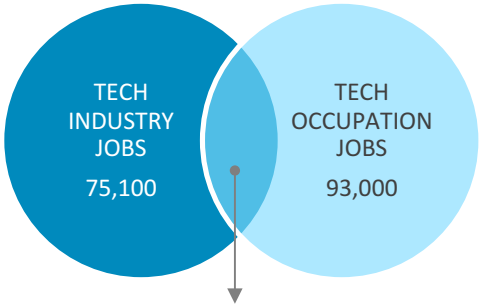
Connecticut



STATE OF TECHNOLOGY SUMMARY

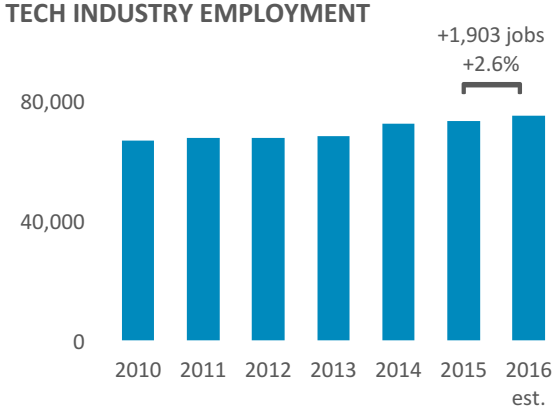
75,096	TECH INDUSTRY EMPLOYMENT
6,471	TECH BUSINESS ESTABLISHMENTS
$105,548	AVERAGE WAGE IN TECH INDUSTRY
4.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
10,013	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

26th	TECH EMPLOYMENT RANK
11th	AVERAGE TECH WAGE RANK
22nd	INNOVATION RANK [per capita]

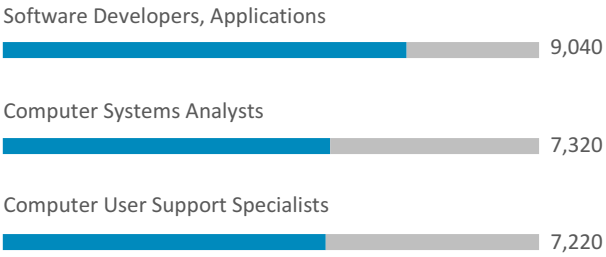


45% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

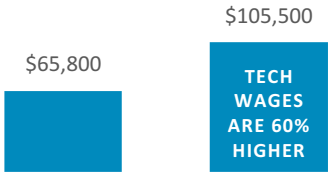
	2016	YoY % Change
IT Services + Custom Software Services	26,970	1.1%
Telecommunications Services	8,830	-3.3%
R&D and Testing Labs	8,580	20.3%
Engineering Services	8,170	3.1%
Measuring and Control Instruments Mfg.	6,460	-4.7%

ECONOMIC IMPACT

5.3%

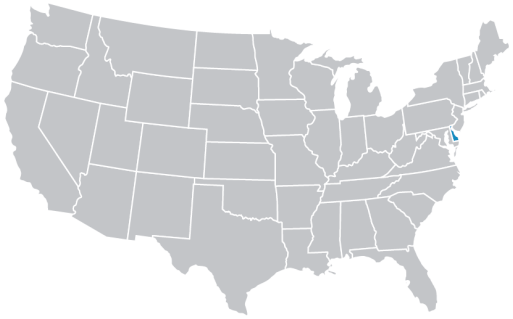
Estimated direct contribution of the tech sector to the Connecticut economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

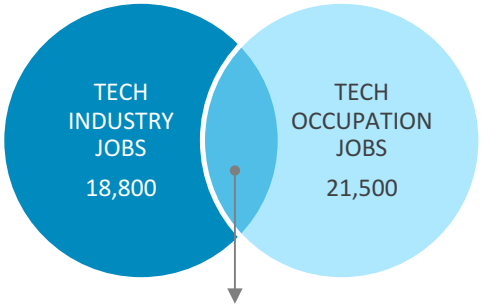
Delaware



STATE OF TECHNOLOGY SUMMARY

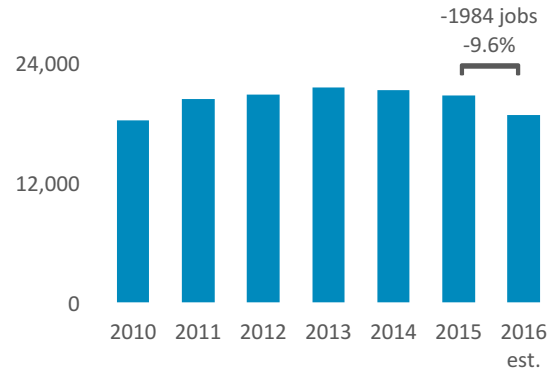
18,752	TECH INDUSTRY EMPLOYMENT
2,601	TECH BUSINESS ESTABLISHMENTS
$104,440	AVERAGE WAGE IN TECH INDUSTRY
4.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,481	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

42nd	TECH EMPLOYMENT RANK
12th	AVERAGE TECH WAGE RANK
13th	INNOVATION RANK [per capita]

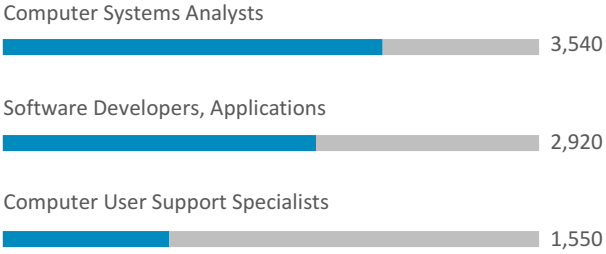


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

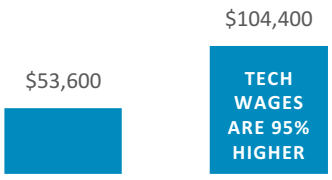
	2016	YoY % Change
IT Services + Custom Software Services	5,130	4.3%
R&D and Testing Labs	4,680	-31.3%
Measuring and Control Instruments Mfg.	2,700	4.5%
Engineering Services	2,460	1.5%
Telecommunications Services	1,710	-7.4%

ECONOMIC IMPACT

6.3%

Estimated direct contribution of the tech sector to the Delaware economy

TECH INDUSTRY WAGES

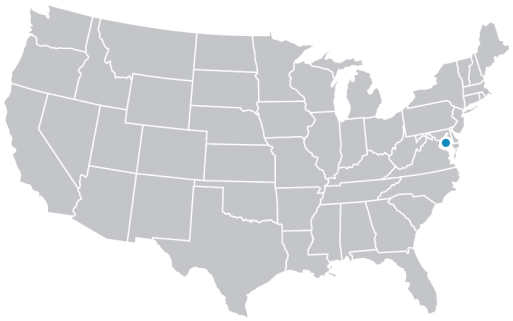


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

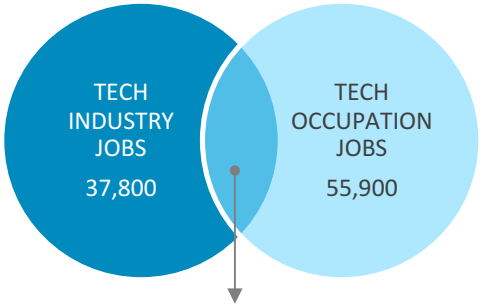
District of Columbia



STATE OF TECHNOLOGY SUMMARY

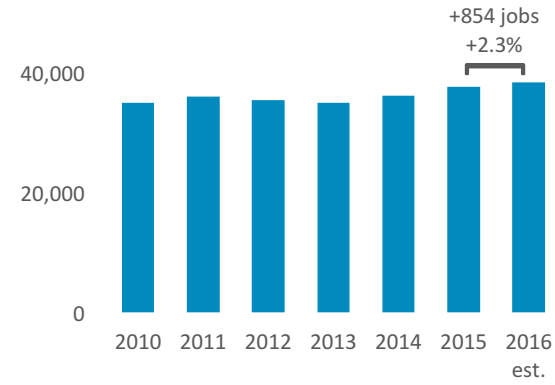
38,500	TECH INDUSTRY EMPLOYMENT
3,502	TECH BUSINESS ESTABLISHMENTS
$113,592	AVERAGE WAGE IN TECH INDUSTRY
5.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
9,154	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

34th	TECH EMPLOYMENT RANK
6th	AVERAGE TECH WAGE RANK
9th	INNOVATION RANK [per capita]

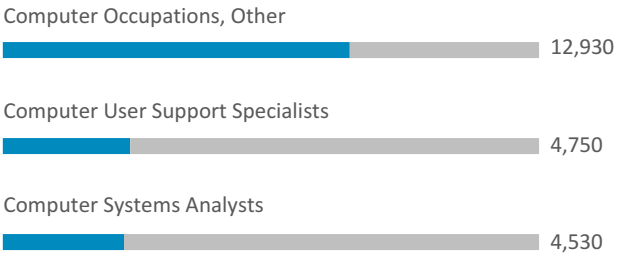


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	24,540	5.0%
R&D and Testing Labs	4,800	-7.4%
Engineering Services	4,150	-1.7%
Internet Services	1,850	16.5%
Telecommunications Services	1,420	-20.7%

ECONOMIC IMPACT

5.1%

Estimated direct contribution of the tech sector to the District of Columbia economy

TECH INDUSTRY WAGES

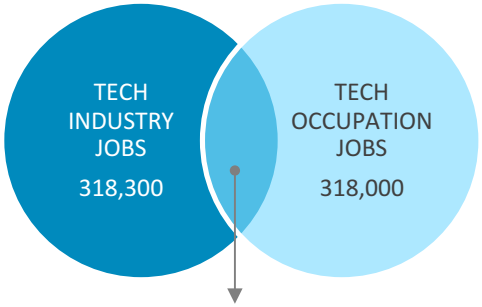
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Florida

STATE OF TECHNOLOGY SUMMARY

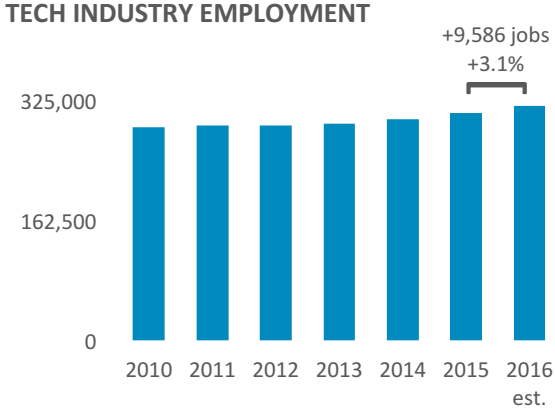
318,343	TECH INDUSTRY EMPLOYMENT
30,721	TECH BUSINESS ESTABLISHMENTS
$86,563	AVERAGE WAGE IN TECH INDUSTRY
3.9%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
26,085	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

4th	TECH EMPLOYMENT RANK
23rd	AVERAGE TECH WAGE RANK
23rd	INNOVATION RANK [per capita]

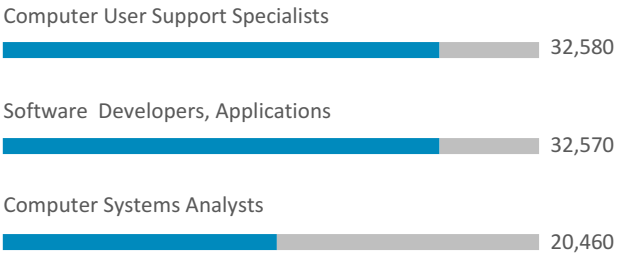


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

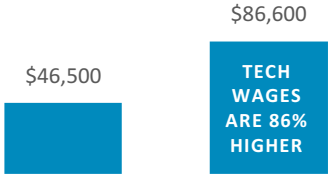
	2016	YoY % Change
IT Services + Custom Software Services	84,330	7.5%
Engineering Services	54,010	4.3%
Telecommunications Services	50,540	-1.7%
Internet Services	21,870	-0.9%
R&D and Testing Labs	21,100	4.1%

ECONOMIC IMPACT

6.1%

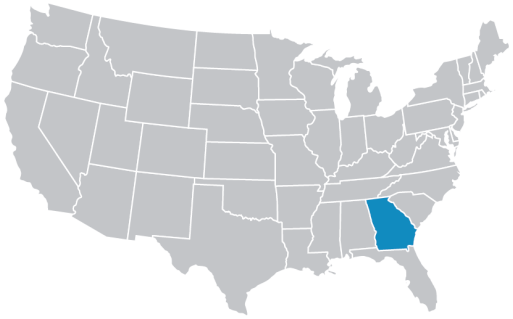
Estimated direct contribution of the tech sector to the Florida economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

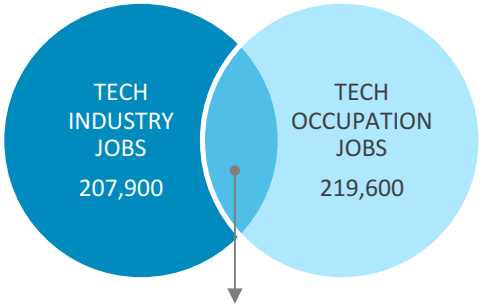
Georgia



STATE OF TECHNOLOGY SUMMARY

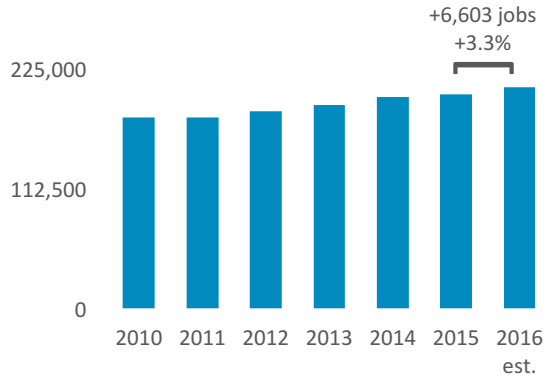
207,865	TECH INDUSTRY EMPLOYMENT
18,293	TECH BUSINESS ESTABLISHMENTS
$94,915	AVERAGE WAGE IN TECH INDUSTRY
4.9%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
22,193	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

12th	TECH EMPLOYMENT RANK
19th	AVERAGE TECH WAGE RANK
19th	INNOVATION RANK [per capita]

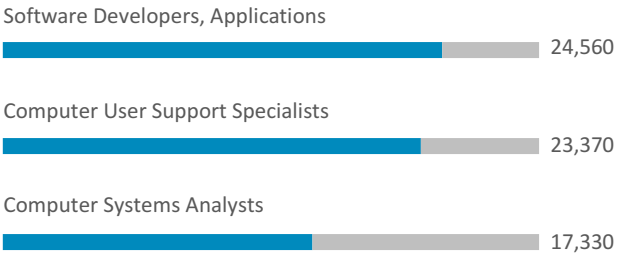


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

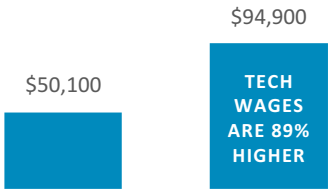
	2016	YoY % Change
IT Services + Custom Software Services	67,810	5.2%
Telecommunications Services	44,090	-0.4%
Engineering Services	32,110	2.8%
Software [packaged]	15,980	5.8%
Internet Services	13,220	11.9%

ECONOMIC IMPACT

8.0%

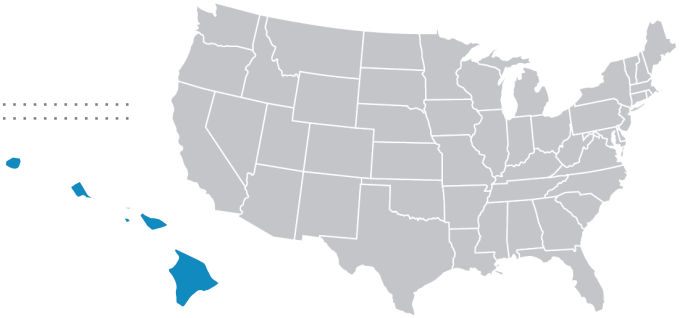
Estimated direct contribution of the tech sector to the Georgia economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

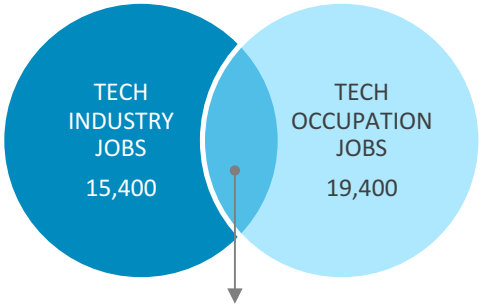
Hawaii



STATE OF TECHNOLOGY SUMMARY

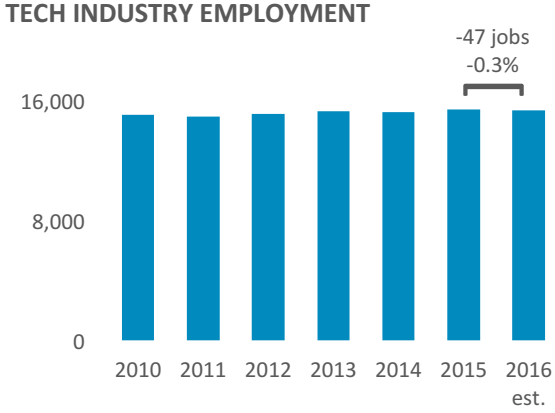
15,380	TECH INDUSTRY EMPLOYMENT
2.072	TECH BUSINESS ESTABLISHMENTS
$81,269	AVERAGE WAGE IN TECH INDUSTRY
2.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,375	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

45th	TECH EMPLOYMENT RANK
30th	AVERAGE TECH WAGE RANK
30th	INNOVATION RANK [per capita]

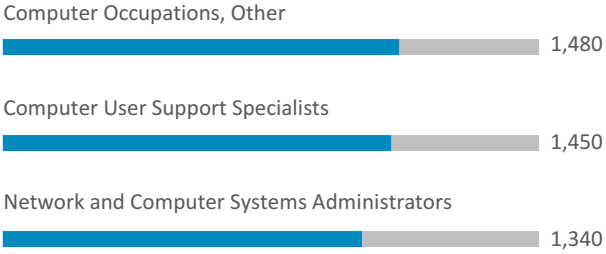


40% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

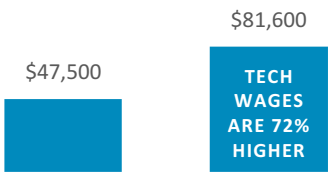
	2016	YoY % Change
IT Services + Custom Software Services	4,930	-1.0%
Telecommunications Services	4,130	2.7%
Engineering Services	3,550	0.1%
R&D and Testing Labs	1,690	-2.9%
Internet Services	470	-10.3%

ECONOMIC IMPACT

3.3%

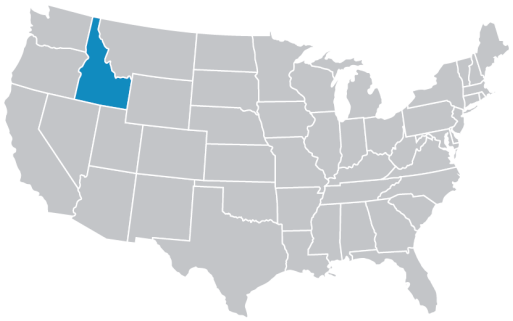
Estimated direct contribution of the tech sector to the Hawaii economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

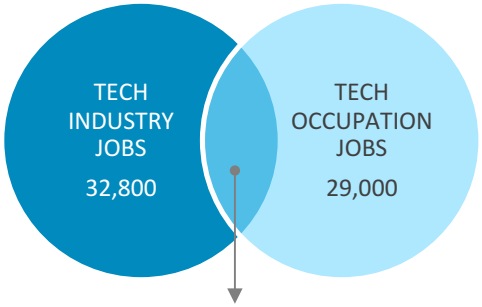
Idaho



STATE OF TECHNOLOGY SUMMARY

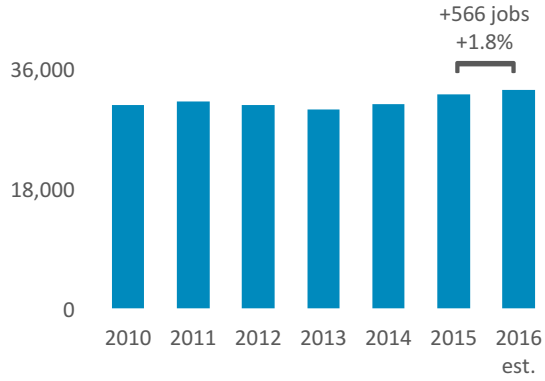
32,802	TECH INDUSTRY EMPLOYMENT
2,941	TECH BUSINESS ESTABLISHMENTS
$83,418	AVERAGE WAGE IN TECH INDUSTRY
4.8%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,767	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

37th	TECH EMPLOYMENT RANK
25th	AVERAGE TECH WAGE RANK
11th	INNOVATION RANK [per capita]

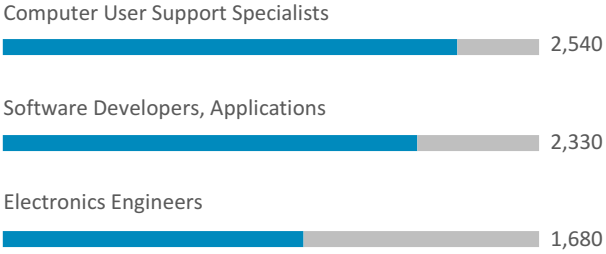


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
Semiconductor Mfg.	8,680	4.7%
R&D and Testing Labs	6,750	-6.5%
IT Services + Custom Software Services	4,660	13.0%
Engineering Services	3,960	4.4%
Telecommunications Services	2,910	0.4%

ECONOMIC IMPACT

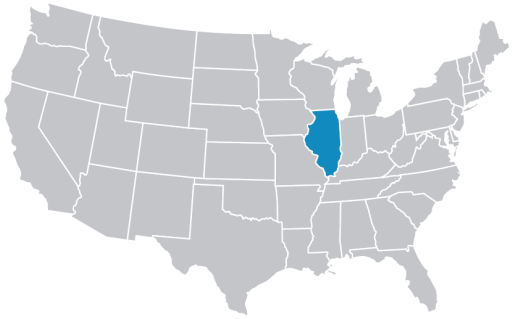
7.6%

Estimated direct contribution of the tech sector to the Idaho economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

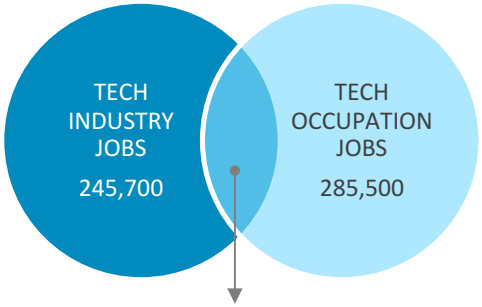
Illinois



STATE OF TECHNOLOGY SUMMARY

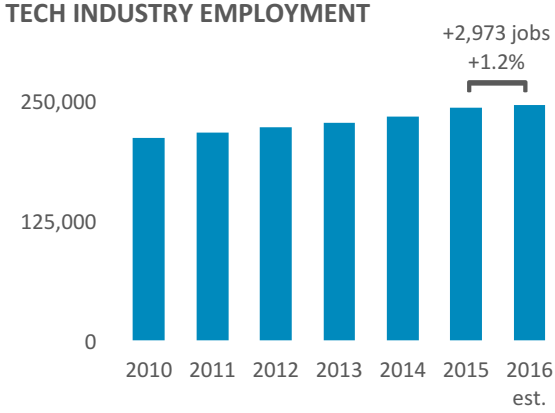
245,674	TECH INDUSTRY EMPLOYMENT
24,353	TECH BUSINESS ESTABLISHMENTS
$99,499	AVERAGE WAGE IN TECH INDUSTRY
4.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
29,093	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

7th	TECH EMPLOYMENT RANK
15th	AVERAGE TECH WAGE RANK
24th	INNOVATION RANK [per capita]

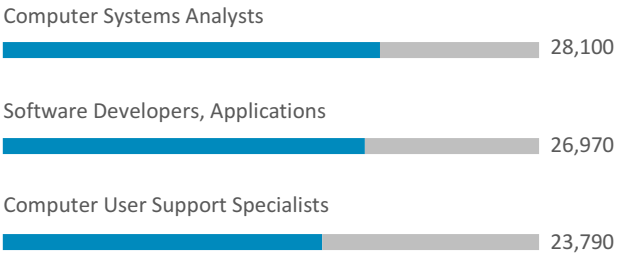


44% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

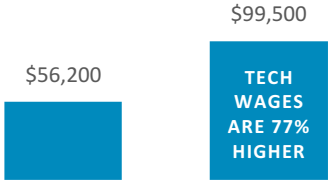
	2016	YoY % Change
IT Services + Custom Software Services	84,150	5.6%
Telecommunications Services	31,460	-6.6%
Engineering Services	29,520	2.9%
R&D and Testing Labs	28,130	-3.4%
Internet Services	19,700	4.8%

ECONOMIC IMPACT

5.5%

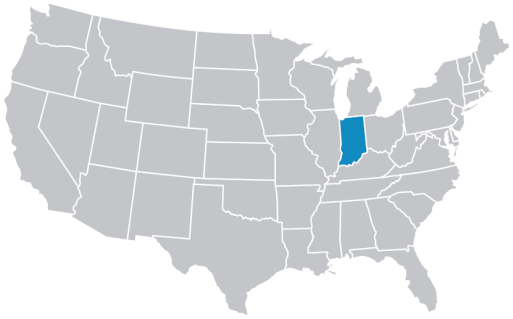
Estimated direct contribution of the tech sector to the Illinois economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

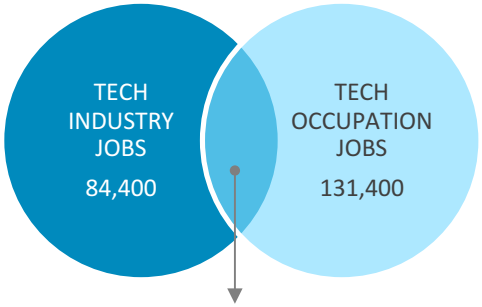
Indiana



STATE OF TECHNOLOGY SUMMARY

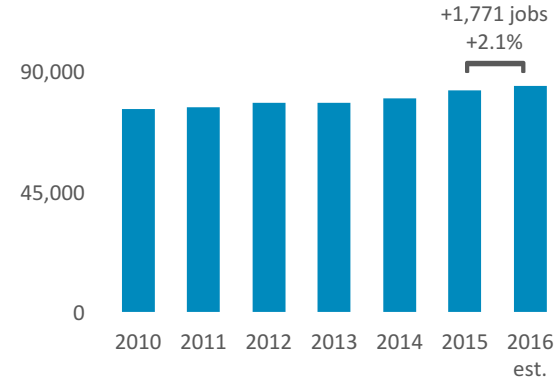
84,382	TECH INDUSTRY EMPLOYMENT
7,889	TECH BUSINESS ESTABLISHMENTS
$74,141	AVERAGE WAGE IN TECH INDUSTRY
2.8%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
8,082	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

23rd	TECH EMPLOYMENT RANK
42nd	AVERAGE TECH WAGE RANK
39th	INNOVATION RANK [per capita]

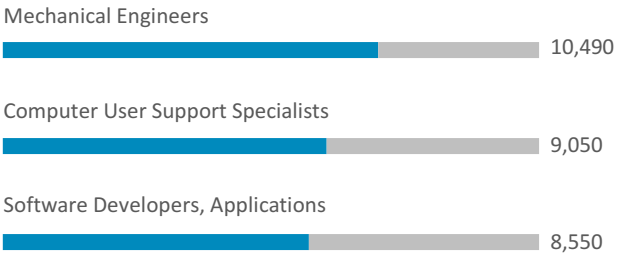


45% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

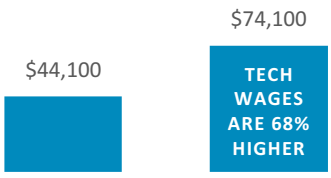
	2016	YoY % Change
IT Services + Custom Software Services	26,150	7.4%
Engineering Services	12,040	1.7%
Telecommunications Services	10,630	-6.6%
R&D and Testing Labs	7,820	6.0%
Measuring and Control Instruments Mfg.	6,740	0.9%

ECONOMIC IMPACT

3.6%

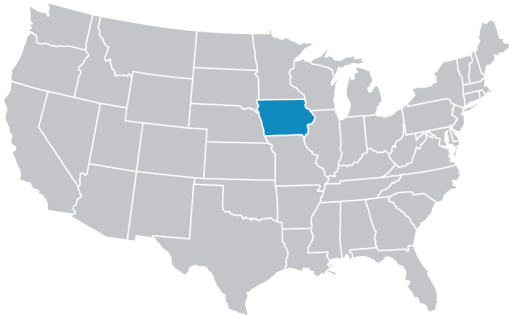
Estimated direct contribution of the tech sector to the Indiana economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

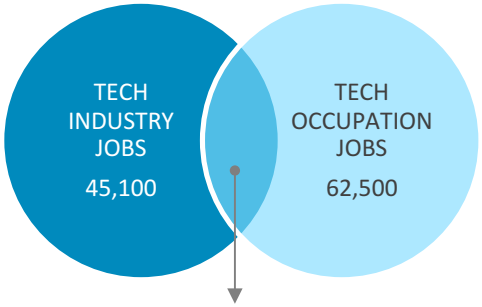
Iowa



STATE OF TECHNOLOGY SUMMARY

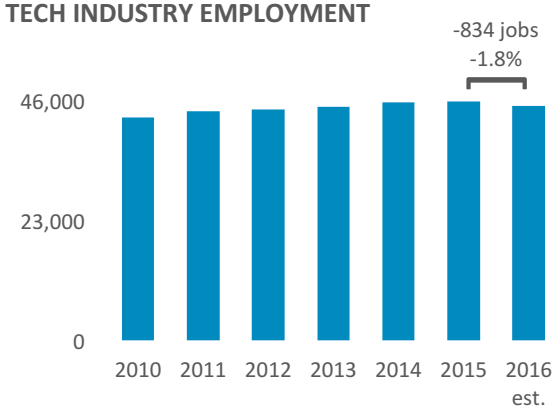
45,068	TECH INDUSTRY EMPLOYMENT
4,234	TECH BUSINESS ESTABLISHMENTS
$77,605	AVERAGE WAGE IN TECH INDUSTRY
2.9%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
6,123	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

32nd	TECH EMPLOYMENT RANK
38th	AVERAGE TECH WAGE RANK
37th	INNOVATION RANK [per capita]

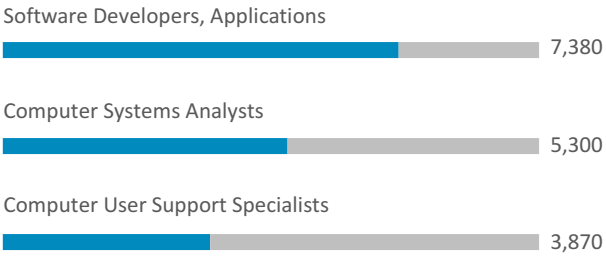


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

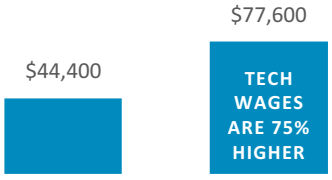
	2016	YoY % Change
IT Services + Custom Software Services	11,070	7.1%
Measuring and Control Instruments Mfg.	10,230	-3.1%
Telecommunications Services	6,350	-3.2%
Engineering Services	5,640	7.0%
Internet Services	4,370	-26.7%

ECONOMIC IMPACT

4.0%

Estimated direct contribution of the tech sector to the Iowa economy

TECH INDUSTRY WAGES

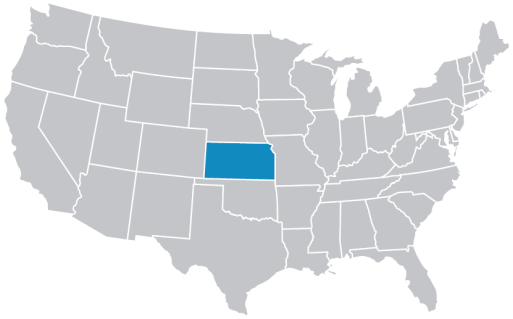


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

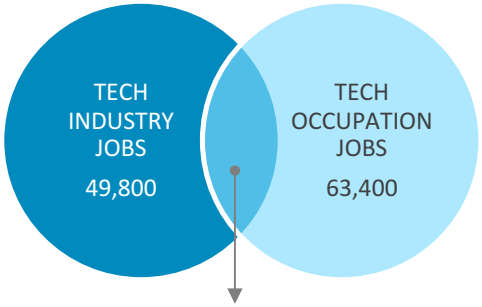
Kansas



STATE OF TECHNOLOGY SUMMARY

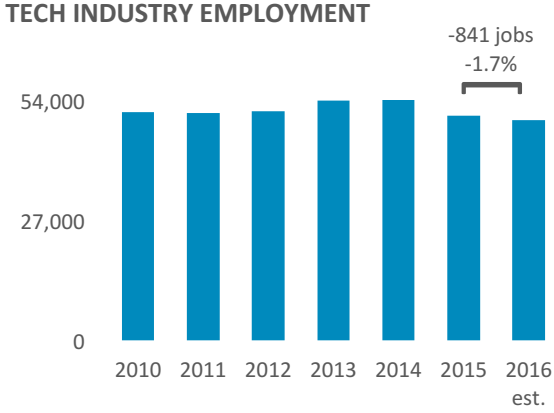
49,762	TECH INDUSTRY EMPLOYMENT
4,592	TECH BUSINESS ESTABLISHMENTS
$79,350	AVERAGE WAGE IN TECH INDUSTRY
3.6%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
4,063	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

29th	TECH EMPLOYMENT RANK
36th	AVERAGE TECH WAGE RANK
28th	INNOVATION RANK [per capita]

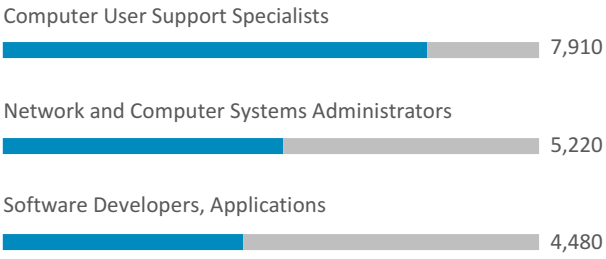


44% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

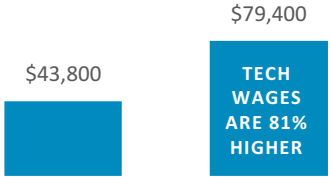
	2016	YoY % Change
IT Services + Custom Software Services	19,010	13.3%
Engineering Services	10,830	0.8%
Telecommunications Services	6,990	-21.4%
R&D and Testing Labs	3,960	3.9%
Internet Services	2,430	8.6%

ECONOMIC IMPACT

4.9%

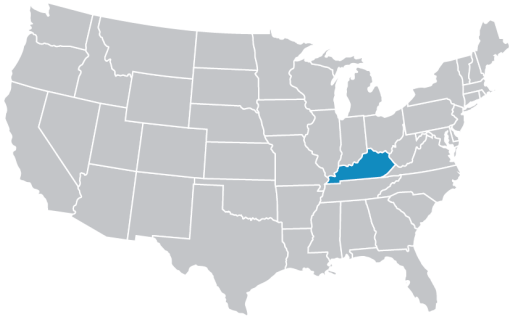
Estimated direct contribution of the tech sector to the Kansas economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

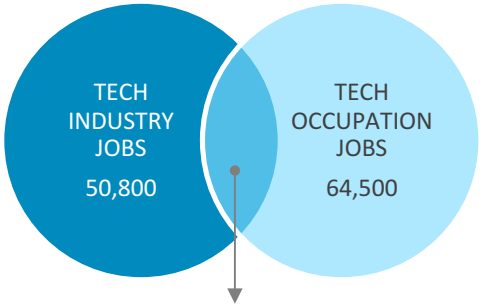
Kentucky



STATE OF TECHNOLOGY SUMMARY

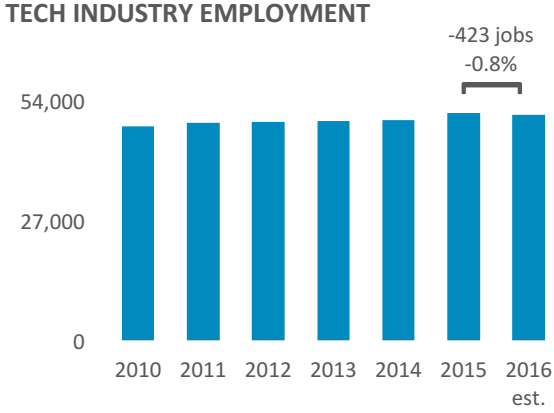
50,793	TECH INDUSTRY EMPLOYMENT
5,682	TECH BUSINESS ESTABLISHMENTS
$69,258	AVERAGE WAGE IN TECH INDUSTRY
2.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
4,261	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

28th	TECH EMPLOYMENT RANK
46th	AVERAGE TECH WAGE RANK
46th	INNOVATION RANK [per capita]

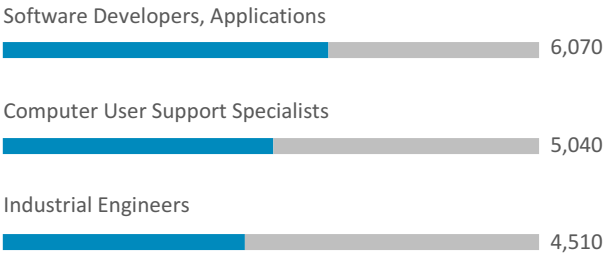


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

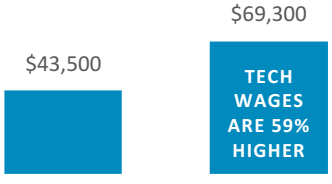
	2016	YoY % Change
IT Services + Custom Software Services	15,360	4.6%
Engineering Services	9,420	8.3%
Telecommunications Services	8,750	-3.1%
Internet Services	4,770	-27.0%
R&D and Testing Labs	2,730	3.8%

ECONOMIC IMPACT

3.4%

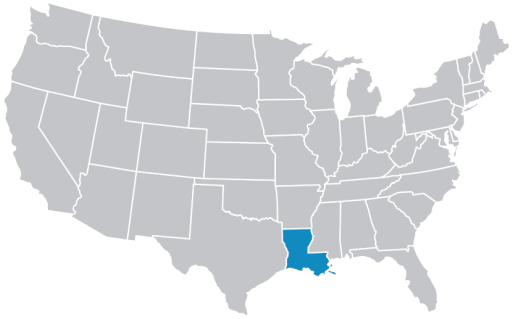
Estimated direct contribution of the tech sector to the Kentucky economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

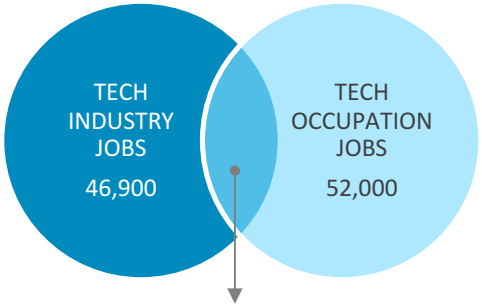
Louisiana



STATE OF TECHNOLOGY SUMMARY

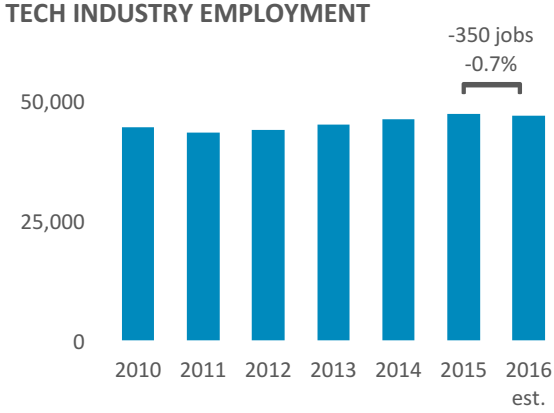
46,877	TECH INDUSTRY EMPLOYMENT
4,884	TECH BUSINESS ESTABLISHMENTS
$75,163	AVERAGE WAGE IN TECH INDUSTRY
2.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,310	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

31st	TECH EMPLOYMENT RANK
41st	AVERAGE TECH WAGE RANK
45th	INNOVATION RANK [per capita]

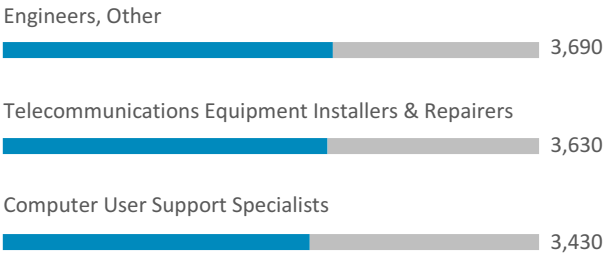


35% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

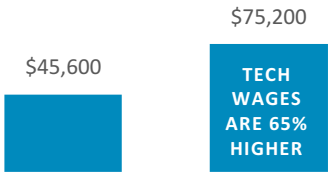
	2016	YoY % Change
Engineering Services	16,010	-3.1%
Telecommunications Services	9,290	-4.3%
IT Services + Custom Software Services	9,080	9.1%
R&D and Testing Labs	5,200	1.2%
Internet Services	2,180	5.0%

ECONOMIC IMPACT

2.8%

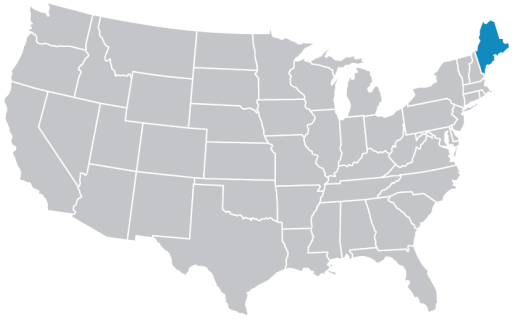
Estimated direct contribution of the tech sector to the Louisiana economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

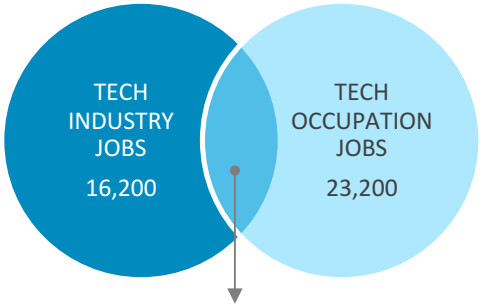
Maine



STATE OF TECHNOLOGY SUMMARY

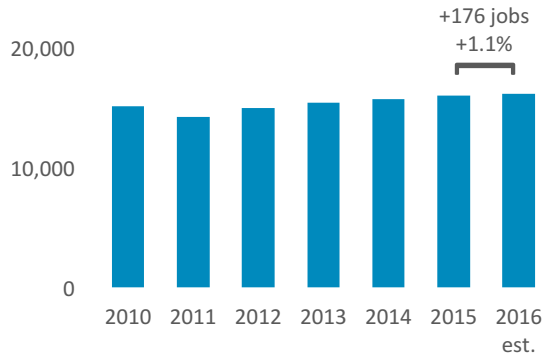
16,190	TECH INDUSTRY EMPLOYMENT
2,641	TECH BUSINESS ESTABLISHMENTS
$77,586	AVERAGE WAGE IN TECH INDUSTRY
2.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,245	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

43rd	TECH EMPLOYMENT RANK
39th	AVERAGE TECH WAGE RANK
42nd	INNOVATION RANK [per capita]

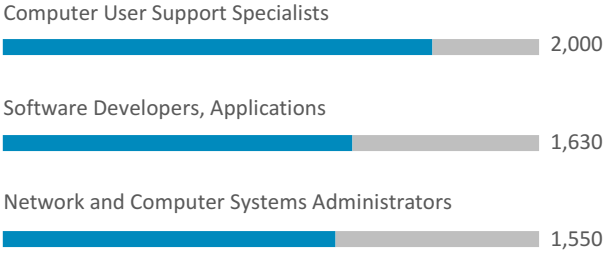


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

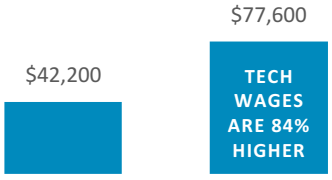
	2016	YoY % Change
IT Services + Custom Software Services	4,660	3.1%
Engineering Services	3,380	3.2%
Telecommunications Services	2,350	0.1%
R&D and Testing Labs	2,060	-0.7%
Semiconductor Mfg.	820	-1.7%

ECONOMIC IMPACT

4.0%

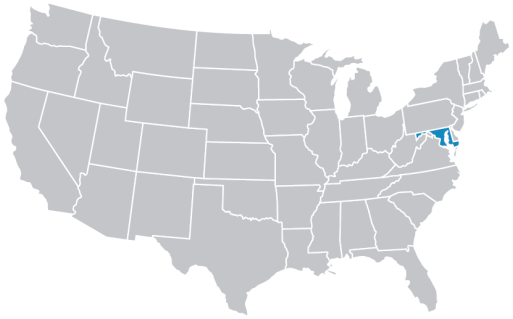
Estimated direct contribution of the tech sector to the Maine economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

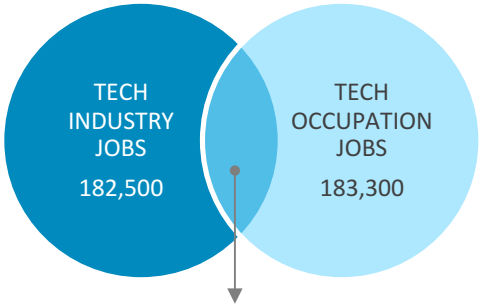
Maryland



STATE OF TECHNOLOGY SUMMARY

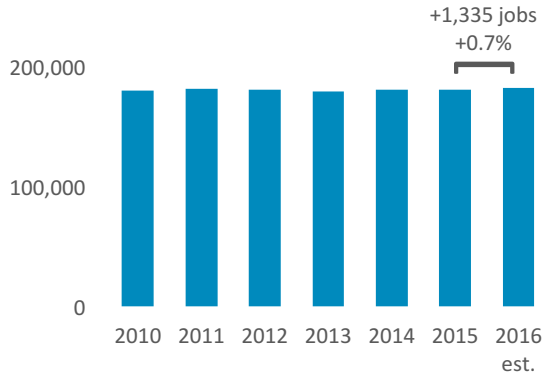
182,539	TECH INDUSTRY EMPLOYMENT
14,571	TECH BUSINESS ESTABLISHMENTS
$107,193	AVERAGE WAGE IN TECH INDUSTRY
7.0%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
19,093	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

16th	TECH EMPLOYMENT RANK
8th	AVERAGE TECH WAGE RANK
12th	INNOVATION RANK [per capita]

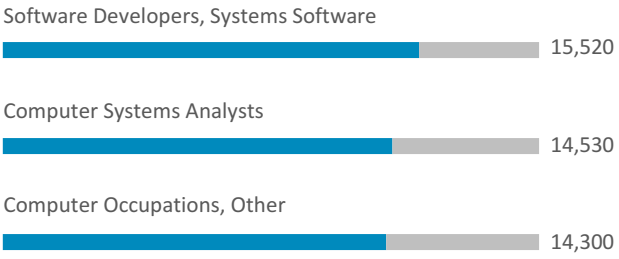


50% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	70,910	1.7%
Engineering Services	33,800	0.3%
R&D and Testing Labs	30,340	5.7%
Telecommunications Services	13,540	-9.3%
Measuring and Control Instruments Mfg.	11,430	-0.4%

ECONOMIC IMPACT

8.8%

Estimated direct contribution of the tech sector to the Maryland economy

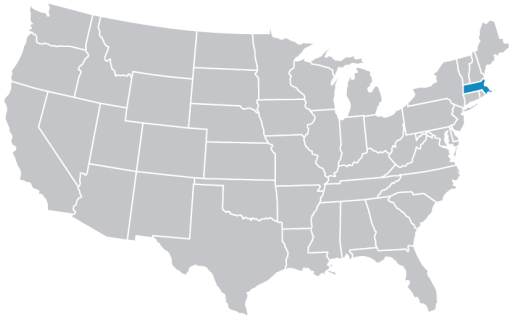
TECH INDUSTRY WAGES

Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

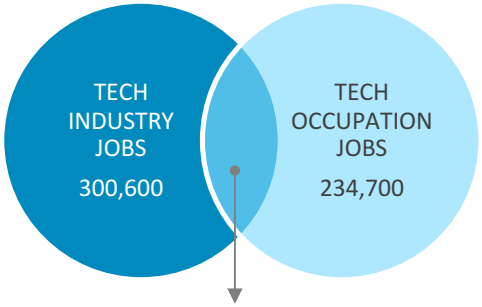
Massachusetts



STATE OF TECHNOLOGY SUMMARY

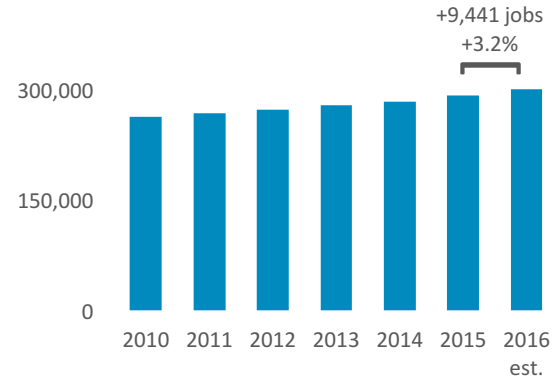
300,632	TECH INDUSTRY EMPLOYMENT
16,094	TECH BUSINESS ESTABLISHMENTS
$131,329	AVERAGE WAGE IN TECH INDUSTRY
8.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
23,112	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

5th	TECH EMPLOYMENT RANK
3rd	AVERAGE TECH WAGE RANK
2nd	INNOVATION RANK [per capita]

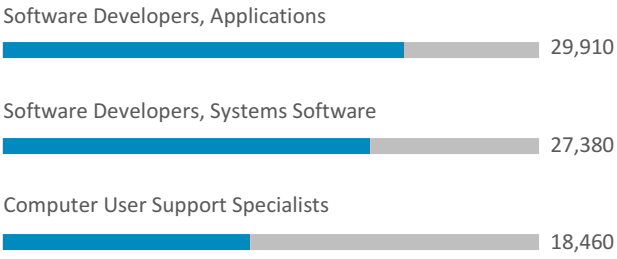


46% of Tech Industry Jobs
Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	81,400	6.6%
R&D and Testing Labs	57,300	6.6%
Software [packaged]	29,500	2.9%
Engineering Services	24,920	2.9%
Measuring and Control Instruments Mfg.	24,810	0.3%

ECONOMIC IMPACT

12.7%

Estimated direct contribution of the tech sector to the Massachusetts economy

TECH INDUSTRY WAGES

Average State Wage

Average Tech Industry Wage

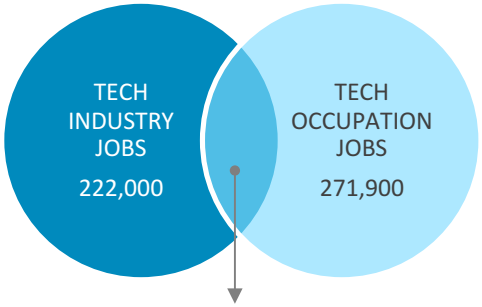
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Michigan

STATE OF TECHNOLOGY SUMMARY

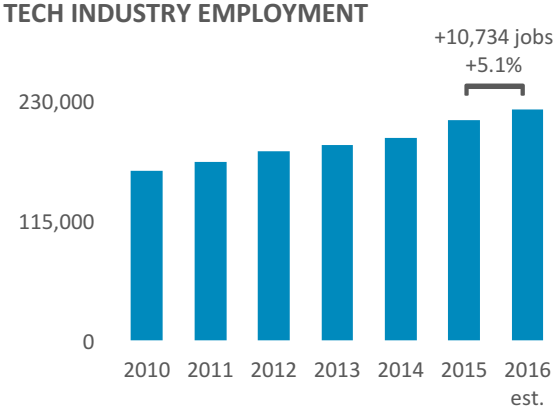
221,994	TECH INDUSTRY EMPLOYMENT
11,223	TECH BUSINESS ESTABLISHMENTS
$89,159	AVERAGE WAGE IN TECH INDUSTRY
5.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
28,659	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

10th	TECH EMPLOYMENT RANK
21st	AVERAGE TECH WAGE RANK
27th	INNOVATION RANK [per capita]

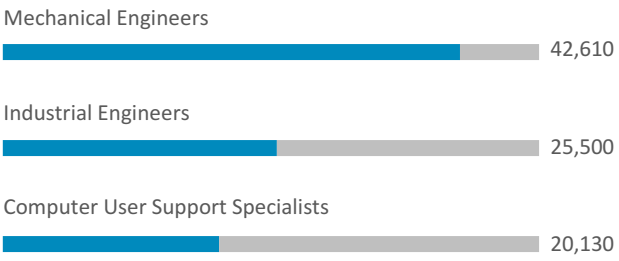


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

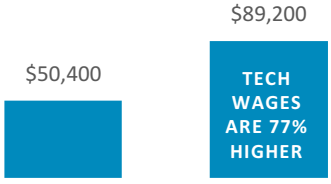
	2016	YoY % Change
Engineering Services	55,740	8.3%
R&D and Testing Labs	54,430	5.4%
IT Services + Custom Software Services	50,980	5.1%
Telecommunications Services	18,760	-2.1%
Measuring and Control Instruments Mfg.	9,170	1.4%

ECONOMIC IMPACT

6.6%

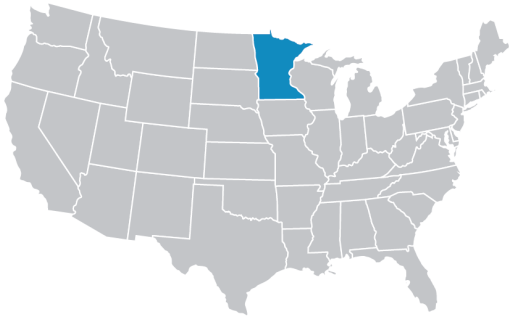
Estimated direct contribution of the tech sector to the Michigan economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

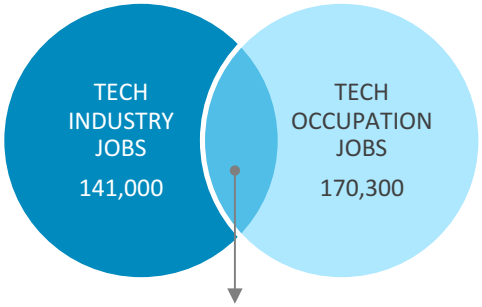
Minnesota



STATE OF TECHNOLOGY SUMMARY

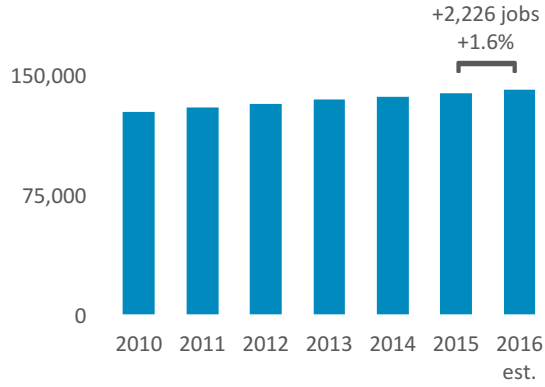
140,970	TECH INDUSTRY EMPLOYMENT
9,165	TECH BUSINESS ESTABLISHMENTS
$95,939	AVERAGE WAGE IN TECH INDUSTRY
5.0%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
15,235	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

17th	TECH EMPLOYMENT RANK
17th	AVERAGE TECH WAGE RANK
18th	INNOVATION RANK [per capita]

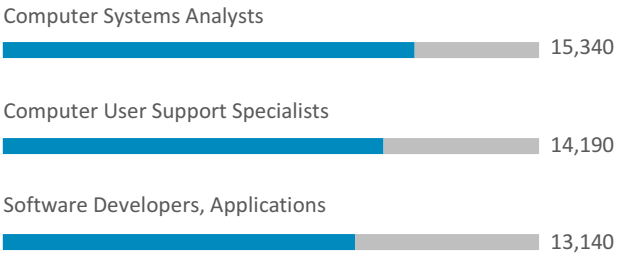


49% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

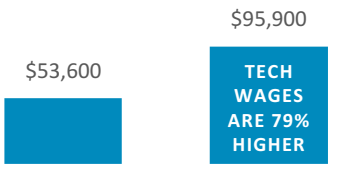
	2016	YoY % Change
IT Services + Custom Software Services	37,680	5.7%
Measuring and Control Instruments Mfg.	26,210	2.0%
Engineering Services	14,120	5.9%
Telecommunications Services	12,010	-4.3%
R&D and Testing Labs	10,630	1.5%

ECONOMIC IMPACT

7.4%

Estimated direct contribution of the tech sector to the Minnesota economy

TECH INDUSTRY WAGES

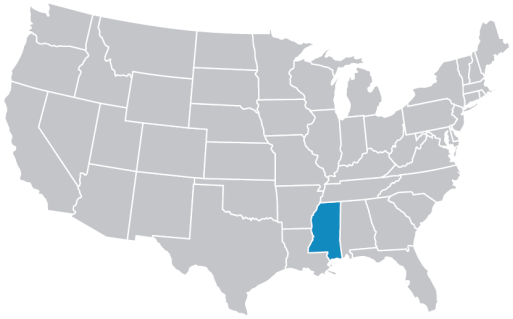


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

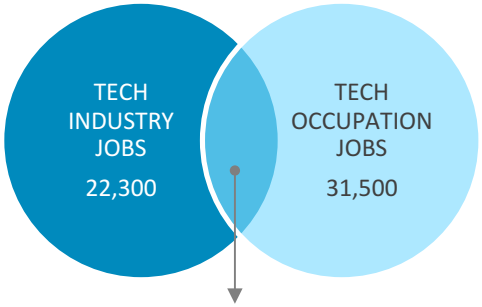
Mississippi



STATE OF TECHNOLOGY SUMMARY

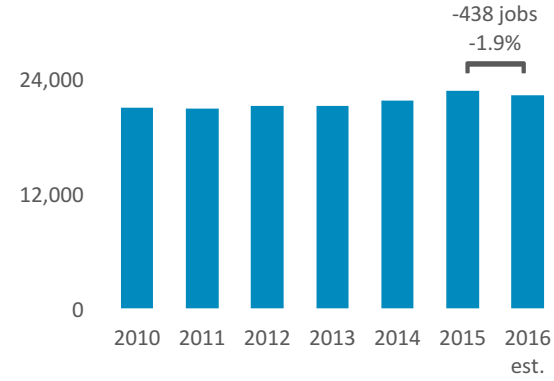
22,261	TECH INDUSTRY EMPLOYMENT
3,042	TECH BUSINESS ESTABLISHMENTS
$63,183	AVERAGE WAGE IN TECH INDUSTRY
2.0%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,755	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

40th	TECH EMPLOYMENT RANK
50th	AVERAGE TECH WAGE RANK
50th	INNOVATION RANK [per capita]

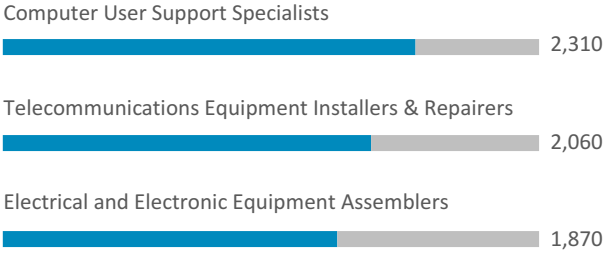


38% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

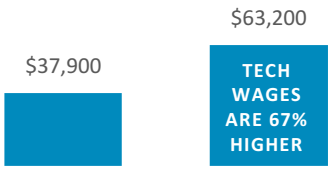
	2016	YoY % Change
Telecommunications Services	6,640	-1.1%
Engineering Services	4,830	-5.0%
IT Services + Custom Software Services	4,590	7.7%
Internet Services	1,590	-22.7%
R&D and Testing Labs	1,160	0.7%

ECONOMIC IMPACT

2.8%

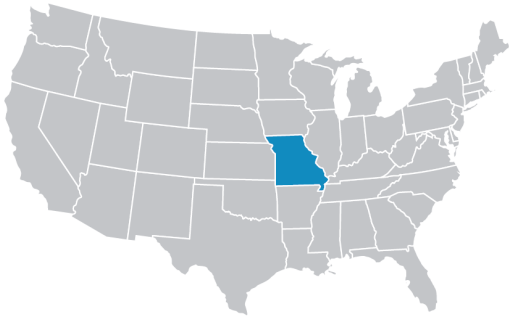
Estimated direct contribution of the tech sector to the Mississippi economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

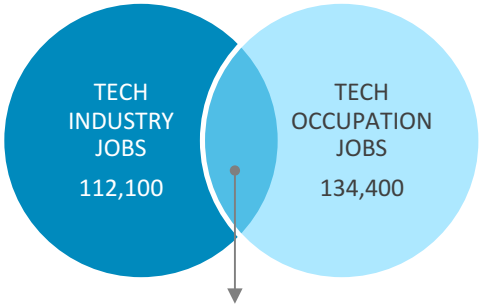
Missouri



STATE OF TECHNOLOGY SUMMARY

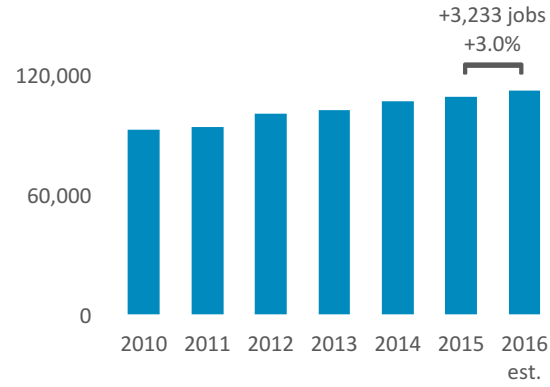
112,073	TECH INDUSTRY EMPLOYMENT
8,029	TECH BUSINESS ESTABLISHMENTS
$86,936	AVERAGE WAGE IN TECH INDUSTRY
4.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
9,385	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

19th	TECH EMPLOYMENT RANK
22nd	AVERAGE TECH WAGE RANK
35th	INNOVATION RANK [per capita]

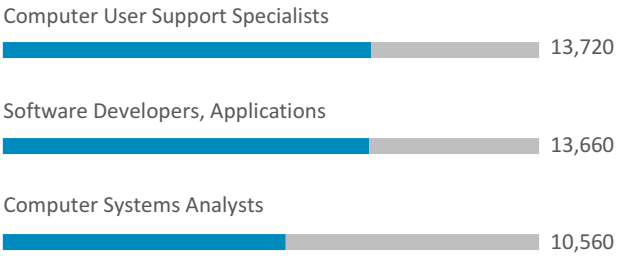


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

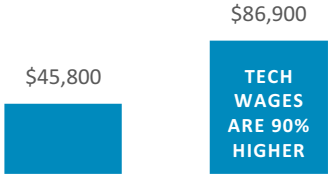
	2016	YoY % Change
IT Services + Custom Software Services	38,120	6.8%
Telecommunications Services	20,210	-3.0%
Engineering Services	16,260	2.0%
Internet Services	10,080	1.1%
R&D and Testing Labs	9,420	3.4%

ECONOMIC IMPACT

5.9%

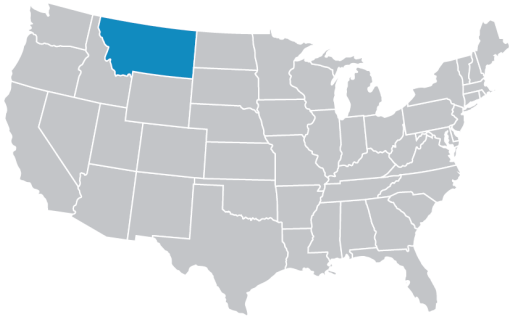
Estimated direct contribution of the tech sector to the Missouri economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

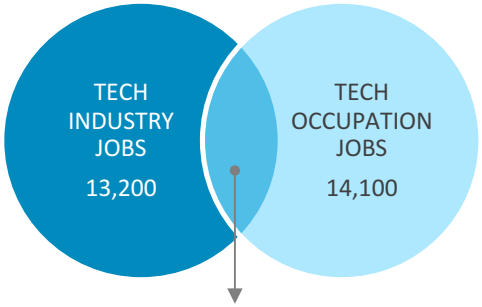
Montana



STATE OF TECHNOLOGY SUMMARY

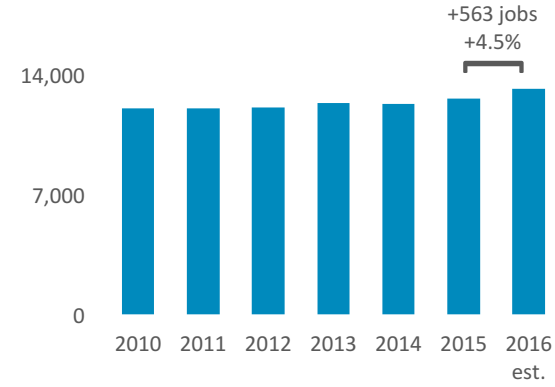
13,201	TECH INDUSTRY EMPLOYMENT
2,038	TECH BUSINESS ESTABLISHMENTS
$68,673	AVERAGE WAGE IN TECH INDUSTRY
2.9%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
914	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

47th	TECH EMPLOYMENT RANK
47th	AVERAGE TECH WAGE RANK
36th	INNOVATION RANK [per capita]

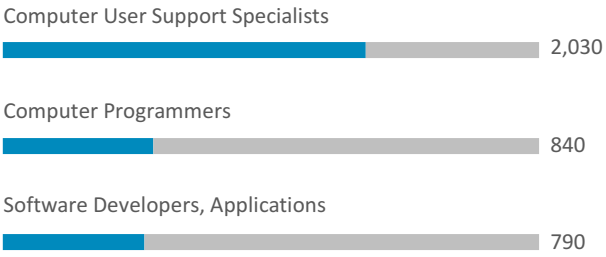


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

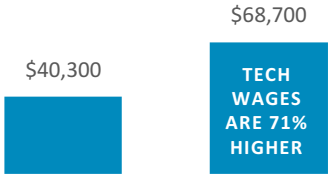
	2016	YoY % Change
IT Services + Custom Software Services	4,340	13.2%
Engineering Services	3,070	2.3%
Telecommunications Services	2,350	-3.9%
R&D and Testing Labs	1,240	-2.3%
Internet Services	480	-5.4%

ECONOMIC IMPACT

3.7%

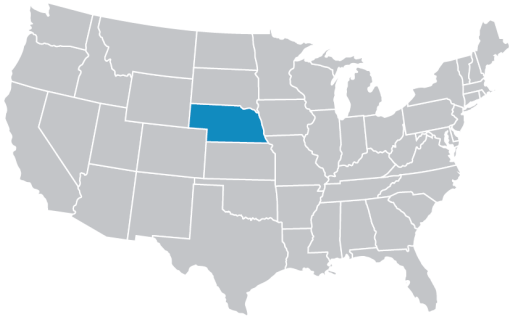
Estimated direct contribution of the tech sector to the Montana economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

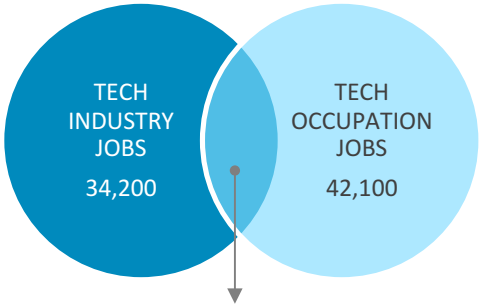
Nebraska



STATE OF TECHNOLOGY SUMMARY

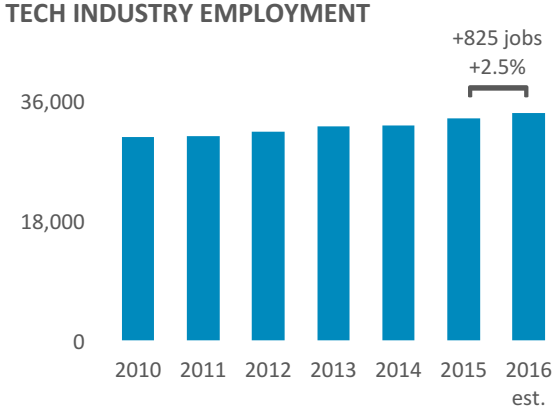
34,220	TECH INDUSTRY EMPLOYMENT
3,112	TECH BUSINESS ESTABLISHMENTS
$73,931	AVERAGE WAGE IN TECH INDUSTRY
3.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,183	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

36th	TECH EMPLOYMENT RANK
43rd	AVERAGE TECH WAGE RANK
34th	INNOVATION RANK [per capita]

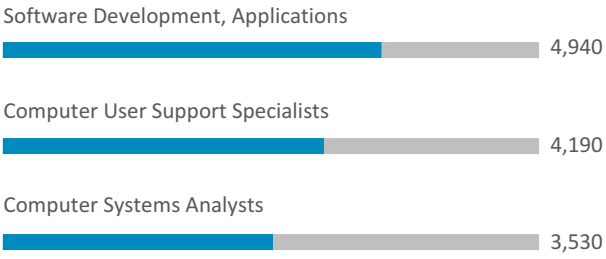


47% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

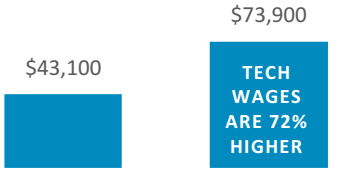
	2016	YoY % Change
IT Services + Custom Software Services	11,560	-2.7%
Internet Services	5,610	2.4%
Engineering Services	4,080	1.4%
Telecommunications Services	3,350	6.4%
Electronic Components Mfg.	2,340	9.6%

ECONOMIC IMPACT

4.0%

Estimated direct contribution of the tech sector to the Nebraska economy

TECH INDUSTRY WAGES

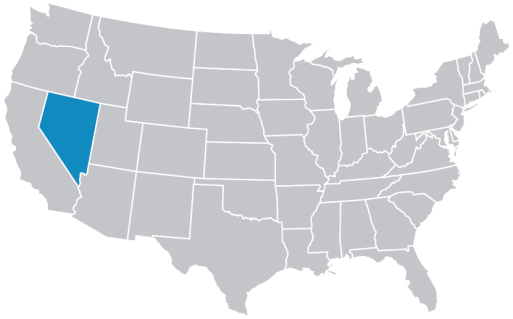


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

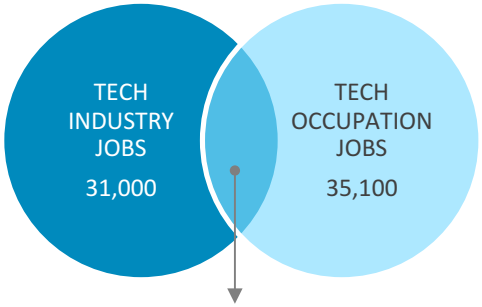
Nevada



STATE OF TECHNOLOGY SUMMARY

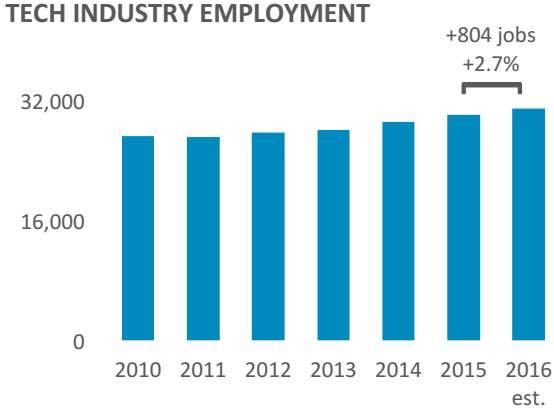
31,003	TECH INDUSTRY EMPLOYMENT
5,003	TECH BUSINESS ESTABLISHMENTS
$83,193	AVERAGE WAGE IN TECH INDUSTRY
2.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,482	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

38th	TECH EMPLOYMENT RANK
27th	AVERAGE TECH WAGE RANK
25th	INNOVATION RANK [per capita]

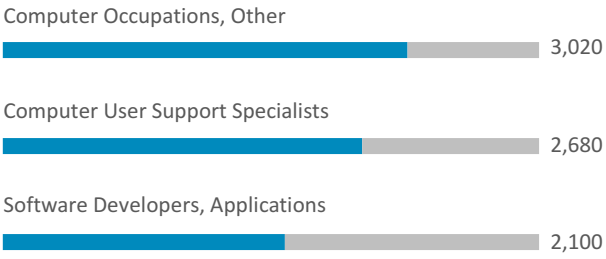


36% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	7,050	6.9%
Engineering Services	6,990	0.1%
R&D and Testing Labs	4,810	1.6%
Telecommunications Services	3,840	-1.6%
Internet Services	2,770	13.0%

ECONOMIC IMPACT

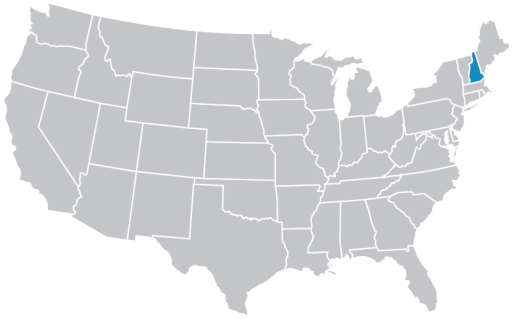
3.6%

Estimated direct contribution of the tech sector to the Nevada economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

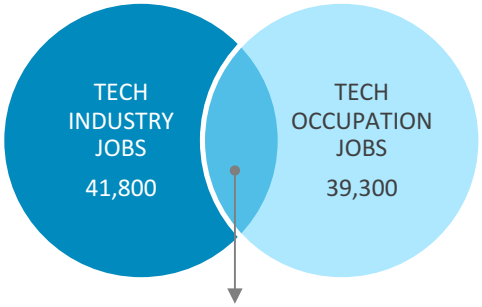
New Hampshire



STATE OF TECHNOLOGY SUMMARY

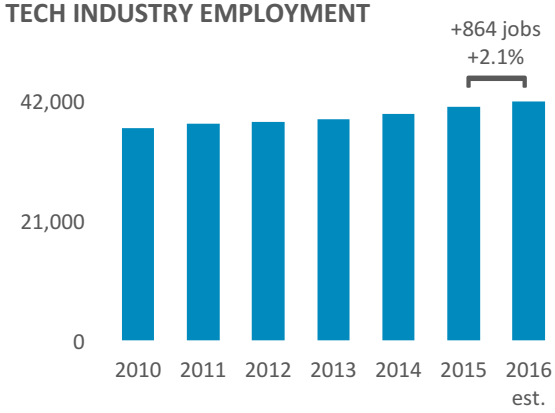
41,846	TECH INDUSTRY EMPLOYMENT
4,058	TECH BUSINESS ESTABLISHMENTS
$100,190	AVERAGE WAGE IN TECH INDUSTRY
6.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
2,611	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

33rd	TECH EMPLOYMENT RANK
14th	AVERAGE TECH WAGE RANK
21st	INNOVATION RANK [per capita]

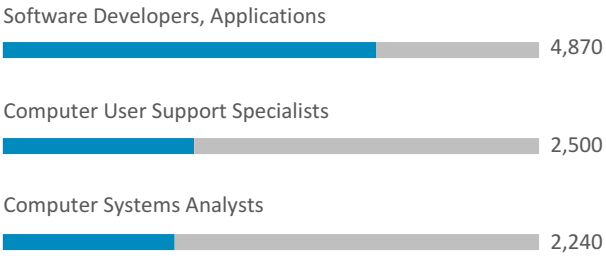


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	9,450	2.2%
Measuring and Control Instruments Mfg.	7,600	1.8%
Electronic Components Mfg.	4,570	0.4%
Engineering Services	4,130	6.1%
Telecommunications Services	3,950	2.5%

ECONOMIC IMPACT

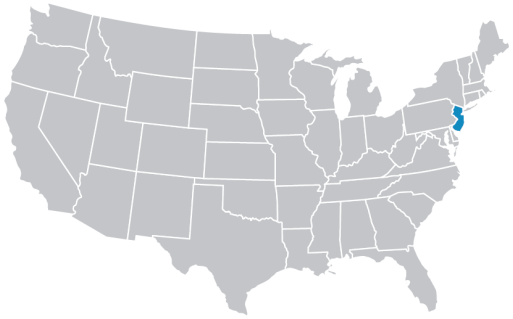
10.1%

Estimated direct contribution of the tech sector to the New Hampshire economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

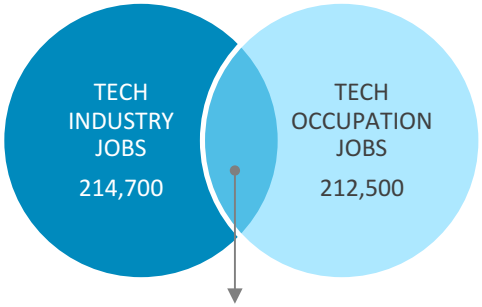
New Jersey



STATE OF TECHNOLOGY SUMMARY

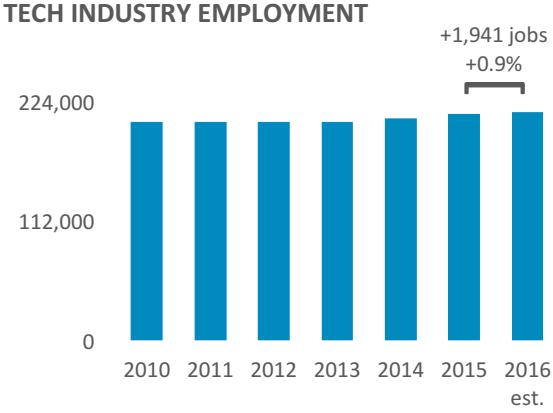
214,737	TECH INDUSTRY EMPLOYMENT
16,114	TECH BUSINESS ESTABLISHMENTS
$121,075	AVERAGE WAGE IN TECH INDUSTRY
5.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
21,332	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

11th	TECH EMPLOYMENT RANK
4th	AVERAGE TECH WAGE RANK
5th	INNOVATION RANK [per capita]

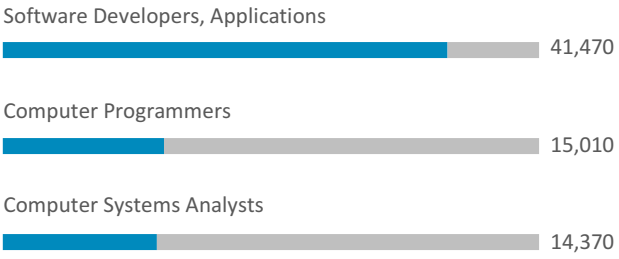


47% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

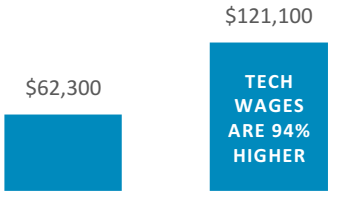
	2016	YoY % Change
IT Services + Custom Software Services	72,930	3.3%
R&D and Testing Labs	35,570	2.5%
Telecommunications Services	28,560	-4.5%
Engineering Services	23,420	-1.2%
Internet Services	12,510	5.0%

ECONOMIC IMPACT

8.0%

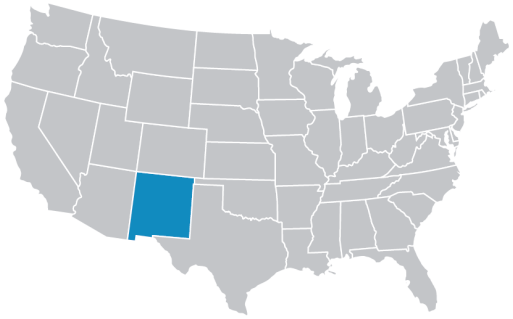
Estimated direct contribution of the tech sector to the New Jersey economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

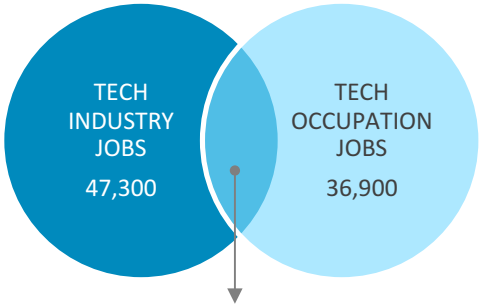
New Mexico



STATE OF TECHNOLOGY SUMMARY

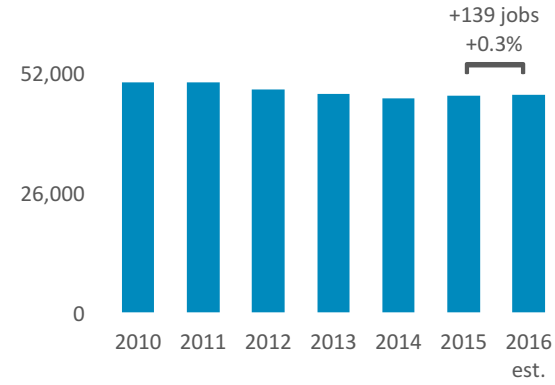
47,252	TECH INDUSTRY EMPLOYMENT
2,985	TECH BUSINESS ESTABLISHMENTS
$85,198	AVERAGE WAGE IN TECH INDUSTRY
5.9%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
2,056	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

30th	TECH EMPLOYMENT RANK
24th	AVERAGE TECH WAGE RANK
26th	INNOVATION RANK [per capita]

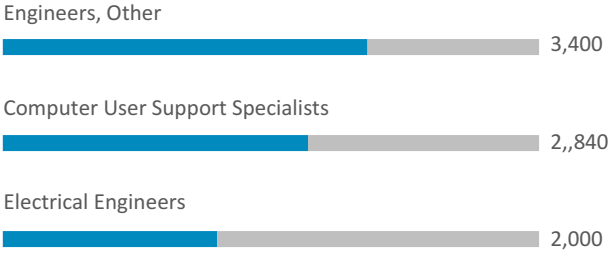


39% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
R&D and Testing Labs	24,390	2.7%
Telecommunications Services	5,960	-0.9%
IT Services + Custom Software Services	5,040	1.3%
Engineering Services	4,790	-3.1%
Semiconductor Mfg.	2,390	-17.4%

ECONOMIC IMPACT

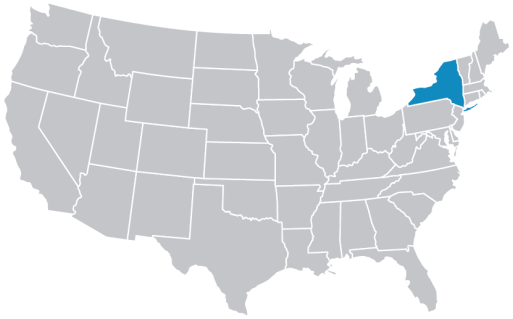
7.9%

Estimated direct contribution of the tech sector to the New Mexico economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

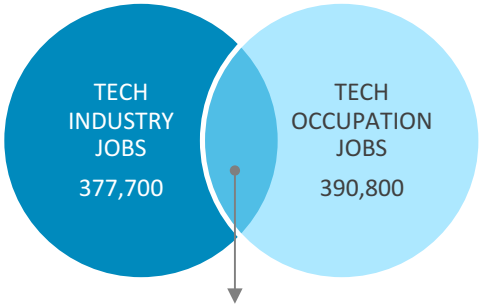
New York



STATE OF TECHNOLOGY SUMMARY

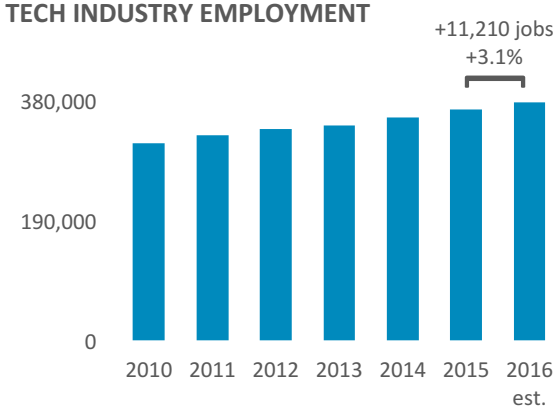
377,736	TECH INDUSTRY EMPLOYMENT
24,326	TECH BUSINESS ESTABLISHMENTS
$118,409	AVERAGE WAGE IN TECH INDUSTRY
4.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
33,270	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

3rd	TECH EMPLOYMENT RANK
5th	AVERAGE TECH WAGE RANK
10th	INNOVATION RANK [per capita]

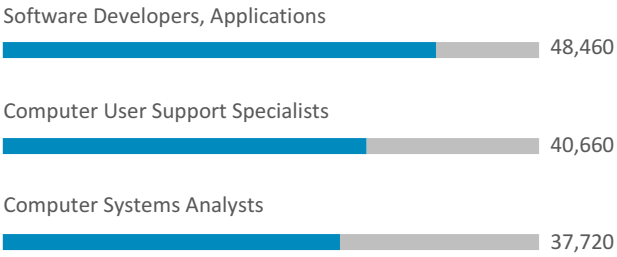


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

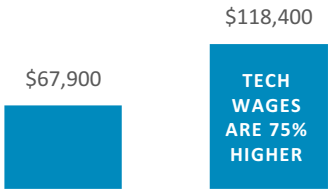
	2016	YoY % Change
IT Services + Custom Software Services	110,600	3.2%
Internet Services	50,280	12.6%
Telecommunications Services	46,860	-1.0%
R&D and Testing Labs	46,600	2.0%
Engineering Services	37,520	0.7%

ECONOMIC IMPACT

6.0%

Estimated direct contribution of the tech sector to the New York economy

TECH INDUSTRY WAGES

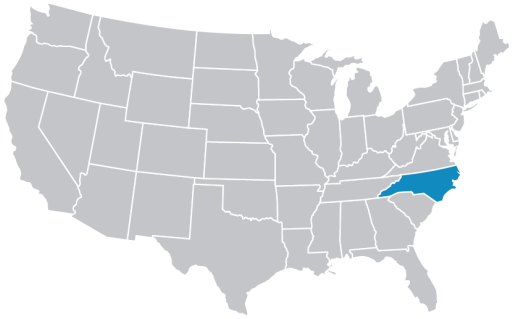


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

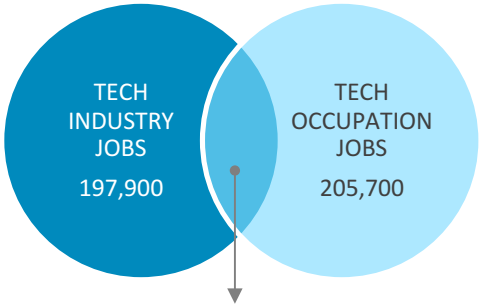
North Carolina



STATE OF TECHNOLOGY SUMMARY

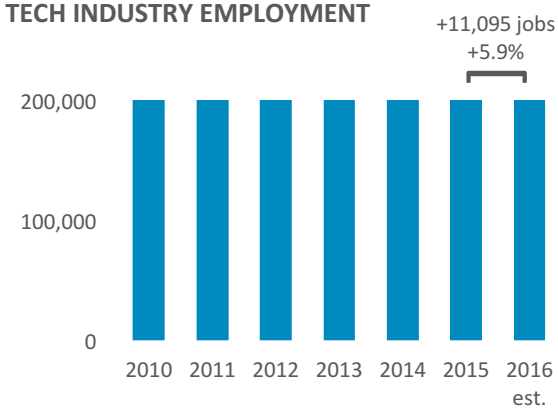
197,880	TECH INDUSTRY EMPLOYMENT
16,605	TECH BUSINESS ESTABLISHMENTS
$93,220	AVERAGE WAGE IN TECH INDUSTRY
4.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
19,808	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

13th	TECH EMPLOYMENT RANK
20th	AVERAGE TECH WAGE RANK
20th	INNOVATION RANK [per capita]

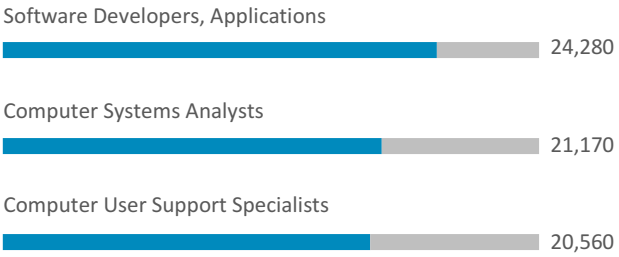


44% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

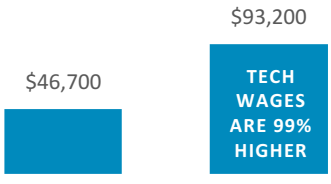
	2016	YoY % Change
IT Services + Custom Software Services	52,560	7.9%
Telecommunications Services	27,030	3.4%
R&D and Testing Labs	24,080	7.8%
Engineering Services	20,920	7.2%
Internet Services	15,400	2.9%

ECONOMIC IMPACT

6.6%

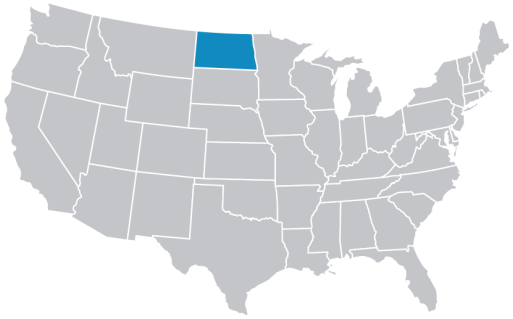
Estimated direct contribution of the tech sector to the North Carolina economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

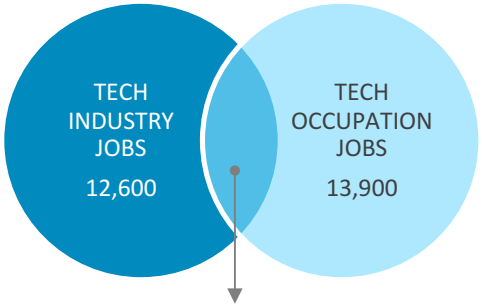
North Dakota



STATE OF TECHNOLOGY SUMMARY

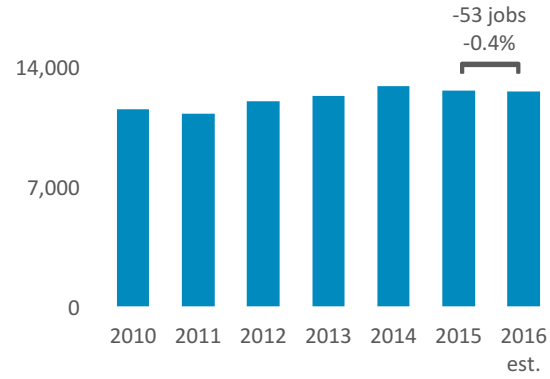
12,578	TECH INDUSTRY EMPLOYMENT
1,257	TECH BUSINESS ESTABLISHMENTS
$78,576	AVERAGE WAGE IN TECH INDUSTRY
3.0%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
940	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

48th	TECH EMPLOYMENT RANK
37th	AVERAGE TECH WAGE RANK
32nd	INNOVATION RANK [per capita]

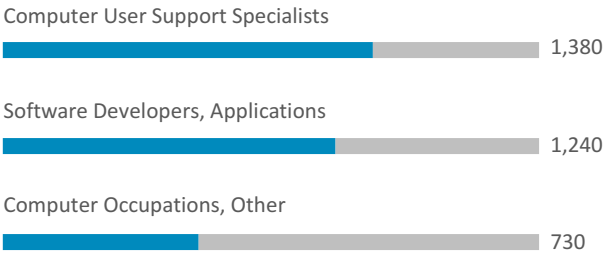


40% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

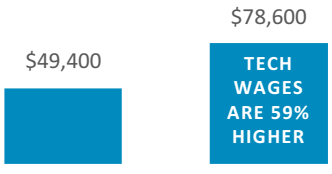
	2016	YoY % Change
Engineering Services	3,470	-1.4%
IT Services + Custom Software Services	2,730	2.1%
Telecommunications Services	1,850	1.0%
Software [packaged]	1,280	8.4%
R&D and Testing Labs	1,060	-3.6%

ECONOMIC IMPACT

3.5%

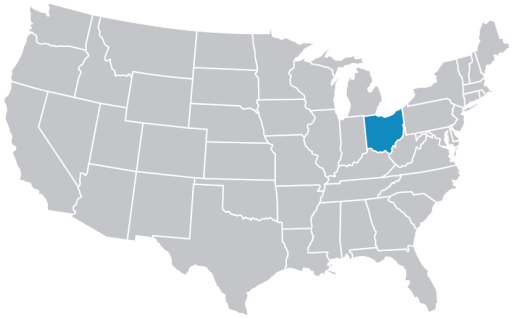
Estimated direct contribution of the tech sector to the North Dakota economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

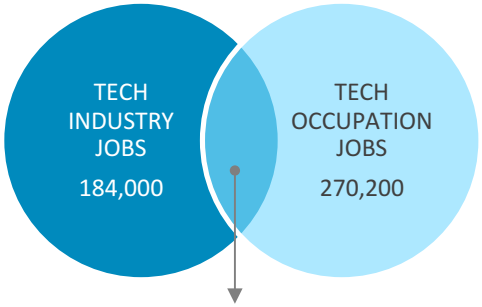
Ohio



STATE OF TECHNOLOGY SUMMARY

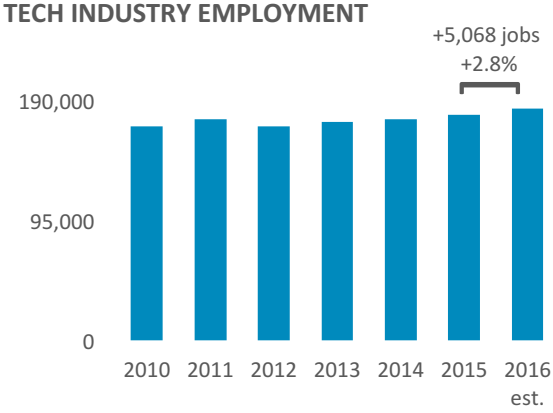
183,989	TECH INDUSTRY EMPLOYMENT
15,312	TECH BUSINESS ESTABLISHMENTS
$80,189	AVERAGE WAGE IN TECH INDUSTRY
3.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
19,130	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

15th	TECH EMPLOYMENT RANK
33rd	AVERAGE TECH WAGE RANK
33rd	INNOVATION RANK [per capita]

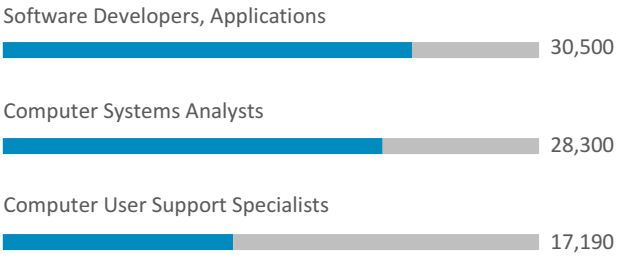


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	59,610	3.6%
Engineering Services	26,000	0.4%
R&D and Testing Labs	25,540	8.3%
Telecommunications Services	23,950	-1.5%
Internet Services	11,540	5.6%

ECONOMIC IMPACT

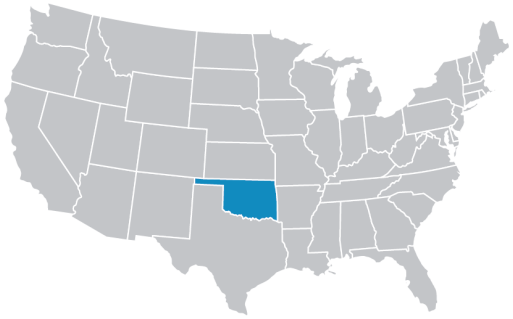
4.5%

Estimated direct contribution of the tech sector to the Ohio economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

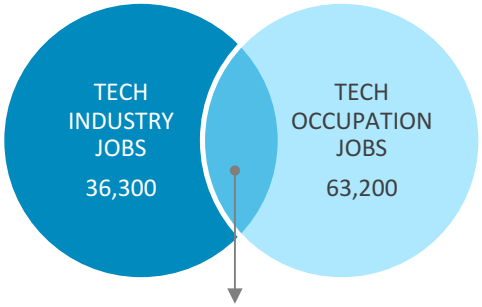
Oklahoma



STATE OF TECHNOLOGY SUMMARY

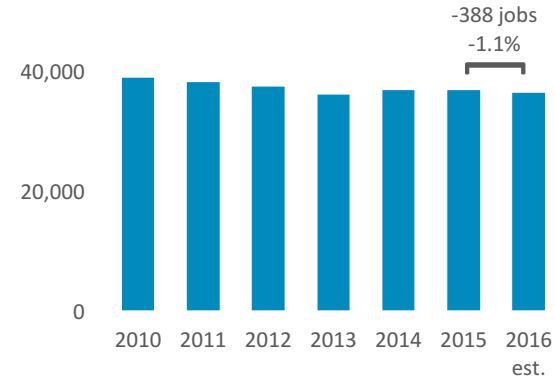
36,336	TECH INDUSTRY EMPLOYMENT
4,052	TECH BUSINESS ESTABLISHMENTS
$69,718	AVERAGE WAGE IN TECH INDUSTRY
2.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,577	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

35th	TECH EMPLOYMENT RANK
44th	AVERAGE TECH WAGE RANK
47th	INNOVATION RANK [per capita]

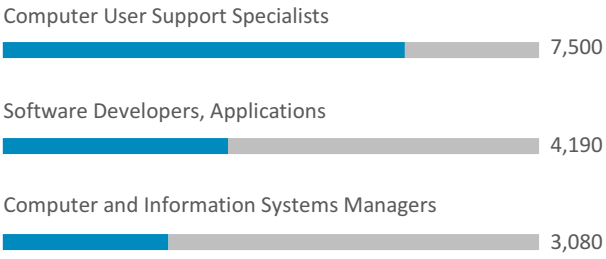


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

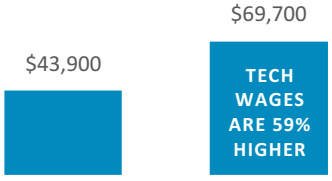
	2016	YoY % Change
Telecommunications Services	9,010	-0.8%
IT Services + Custom Software Services	8,670	1.5%
Engineering Services	7,570	1.2%
R&D and Testing Labs	2,570	-2.1%
Measuring and Control Instruments Mfg.	2,430	-3.5%

ECONOMIC IMPACT

2.8%

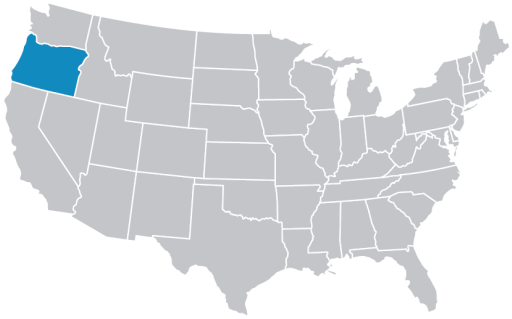
Estimated direct contribution of the tech sector to the Oklahoma economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

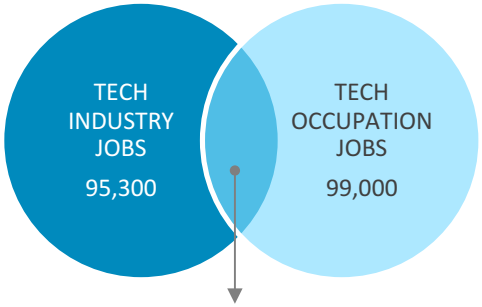
Oregon



STATE OF TECHNOLOGY SUMMARY

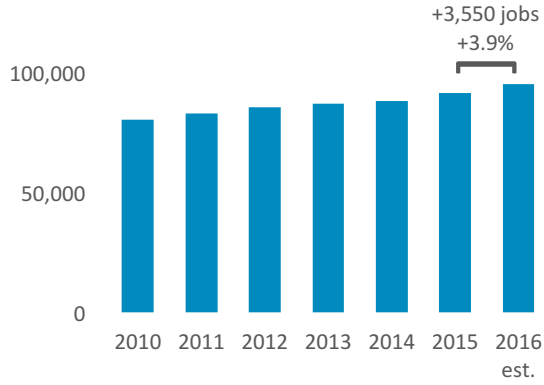
95,307	TECH INDUSTRY EMPLOYMENT
6,800	TECH BUSINESS ESTABLISHMENTS
$107,144	AVERAGE WAGE IN TECH INDUSTRY
5.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
11,126	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

21st	TECH EMPLOYMENT RANK
9th	AVERAGE TECH WAGE RANK
8th	INNOVATION RANK [per capita]

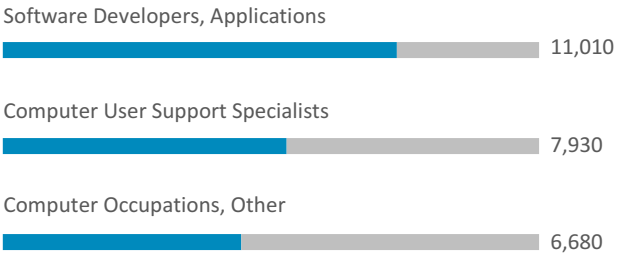


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
Semiconductor Mfg.	29,180	6.0%
IT Services + Custom Software Services	15,780	6.6%
Software [packaged]	10,880	3.5%
Engineering Services	8,850	4.0%
Telecommunications Services	5,900	-5.1%

ECONOMIC IMPACT

18.0%

Estimated direct contribution of the tech sector to the Oregon economy

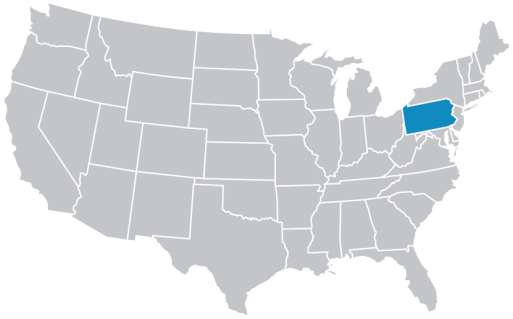
TECH INDUSTRY WAGES

Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

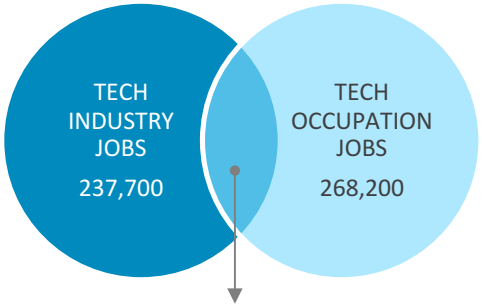
Pennsylvania



STATE OF TECHNOLOGY SUMMARY

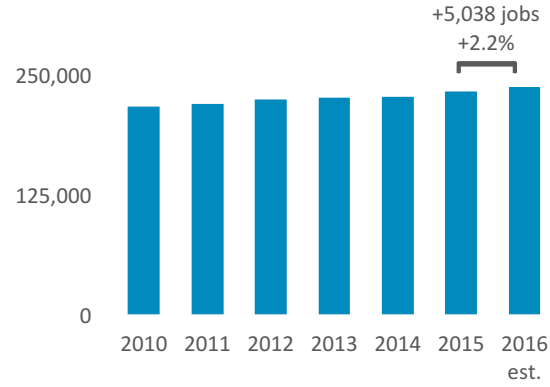
237,664	TECH INDUSTRY EMPLOYMENT
16,027	TECH BUSINESS ESTABLISHMENTS
$95,630	AVERAGE WAGE IN TECH INDUSTRY
4.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
20,360	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

8th	TECH EMPLOYMENT RANK
18th	AVERAGE TECH WAGE RANK
31st	INNOVATION RANK [per capita]

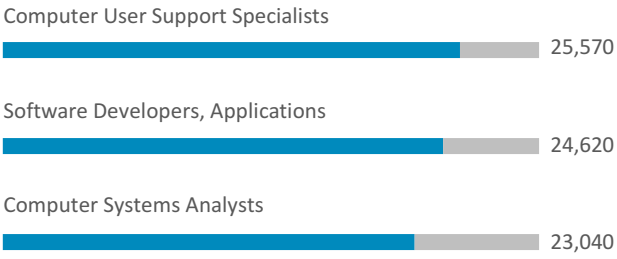


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

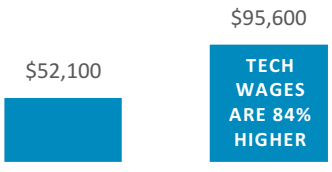
	2016	YoY % Change
IT Services + Custom Software Services	71,690	4.8%
R&D and Testing Labs	40,010	7.7%
Engineering Services	38,010	0.5%
Telecommunications Services	26,820	-2.9%
Measuring and Control Instruments Mfg.	13,960	-0.3%

ECONOMIC IMPACT

5.7%

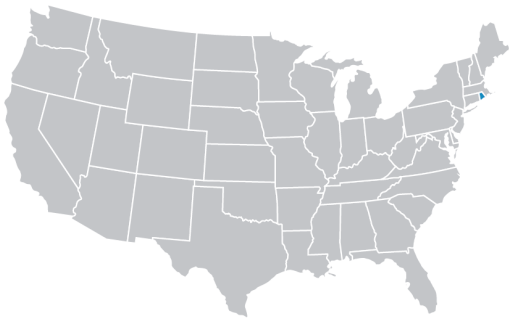
Estimated direct contribution of the tech sector to the Pennsylvania economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

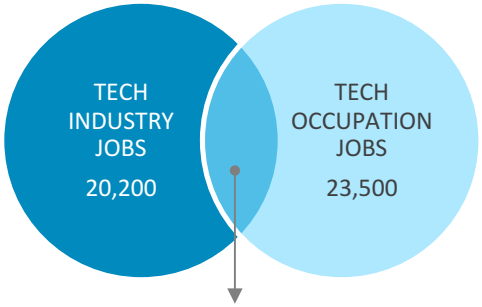
Rhode Island



STATE OF TECHNOLOGY SUMMARY

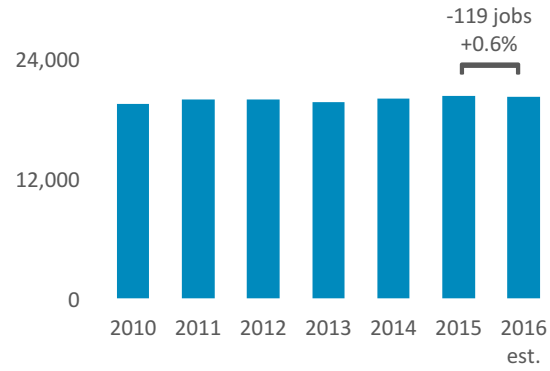
20,189	TECH INDUSTRY EMPLOYMENT
2,496	TECH BUSINESS ESTABLISHMENTS
$82,685	AVERAGE WAGE IN TECH INDUSTRY
4.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,852	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

41st	TECH EMPLOYMENT RANK
28th	AVERAGE TECH WAGE RANK
29th	INNOVATION RANK [per capita]

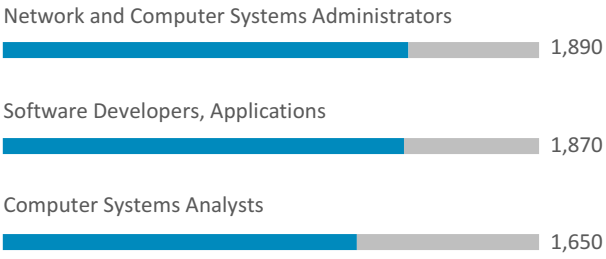


49% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

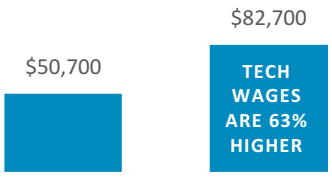
	2016	YoY % Change
IT Services + Custom Software Services	6,930	4.9%
Engineering Services	2,810	2.5%
Internet Services	2,640	-3.9%
Measuring and Control Instruments Mfg.	2,360	-2.9%
Telecommunications Services	1,940	-13.1%

ECONOMIC IMPACT

5.4%

Estimated direct contribution of the tech sector to the Rhode Island economy

TECH INDUSTRY WAGES



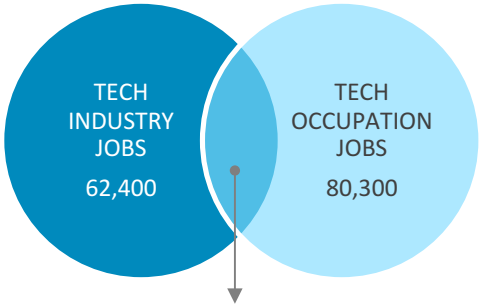
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

South Carolina

STATE OF TECHNOLOGY SUMMARY

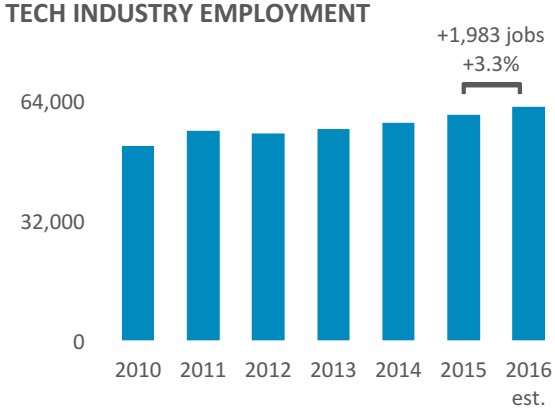
62,360	TECH INDUSTRY EMPLOYMENT
6,391	TECH BUSINESS ESTABLISHMENTS
$76,589	AVERAGE WAGE IN TECH INDUSTRY
3.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
6,424	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

27th	TECH EMPLOYMENT RANK
40th	AVERAGE TECH WAGE RANK
38th	INNOVATION RANK [per capita]

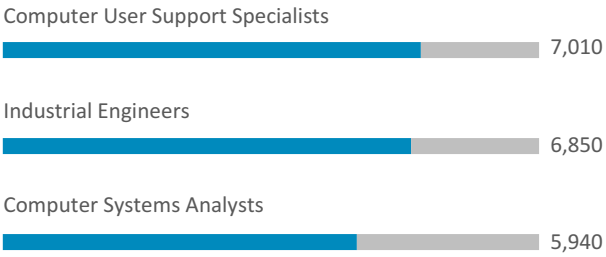


40% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
Engineering Services	16,010	-0.2%
IT Services + Custom Software Services	14,840	11.4%
Telecommunications Services	12,830	0.3%
R&D and Testing Labs	3,720	0.7%
Internet Services	3,300	9.6%

ECONOMIC IMPACT

4.6%

Estimated direct contribution of the tech sector to the South Carolina economy

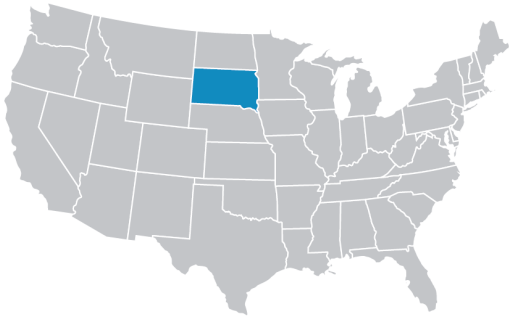
TECH INDUSTRY WAGES

Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

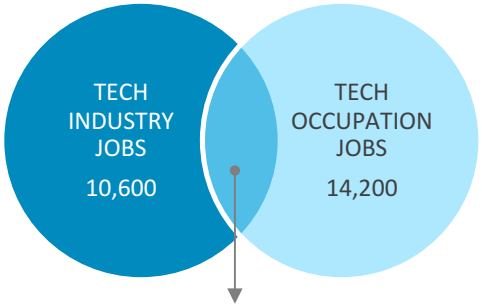
South Dakota



STATE OF TECHNOLOGY SUMMARY

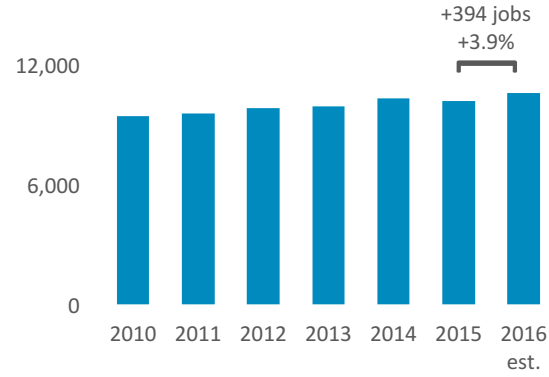
10,595	TECH INDUSTRY EMPLOYMENT
1,321	TECH BUSINESS ESTABLISHMENTS
$61,947	AVERAGE WAGE IN TECH INDUSTRY
2.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,277	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

50th	TECH EMPLOYMENT RANK
51st	AVERAGE TECH WAGE RANK
48th	INNOVATION RANK [per capita]

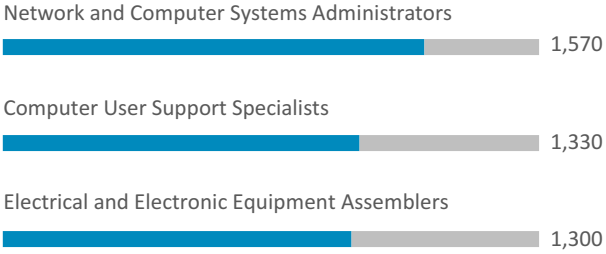


41% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

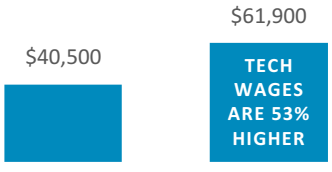
	2016	YoY % Change
Telecommunications Services	2,570	-2.7%
IT Services + Custom Software Services	2,220	9.0%
Engineering Services	1,960	3.9%
R&D and Testing Labs	1,110	8.9%
Electronics Components Mfg.	980	21.7%

ECONOMIC IMPACT

3.2%

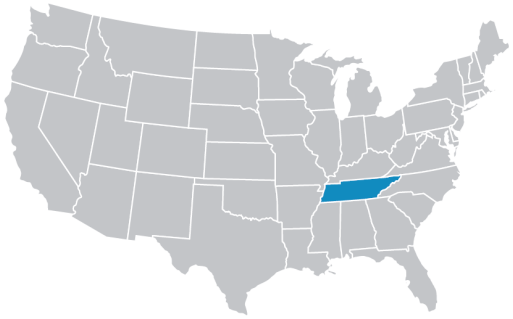
Estimated direct contribution of the tech sector to the South Dakota economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

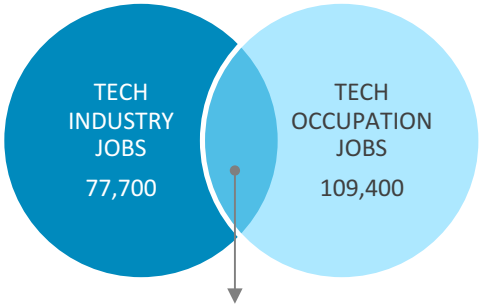
Tennessee



STATE OF TECHNOLOGY SUMMARY

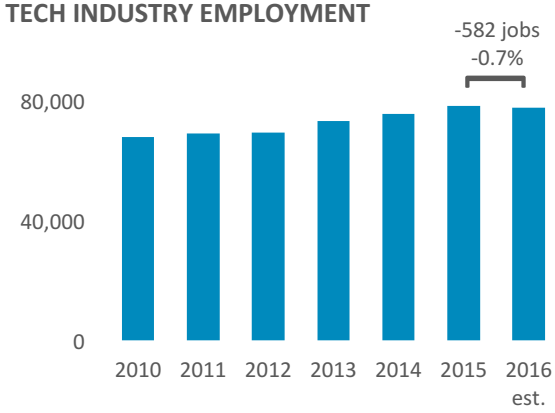
77,683	TECH INDUSTRY EMPLOYMENT
7,394	TECH BUSINESS ESTABLISHMENTS
$80,244	AVERAGE WAGE IN TECH INDUSTRY
2.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
7,704	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

25th	TECH EMPLOYMENT RANK
32nd	AVERAGE TECH WAGE RANK
41st	INNOVATION RANK [per capita]

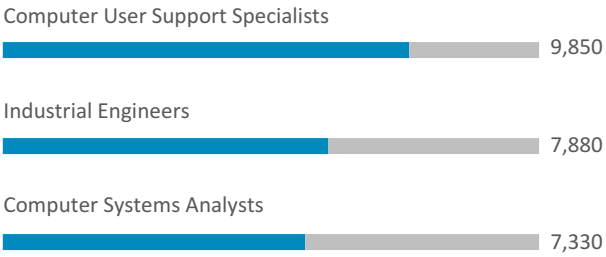


40% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

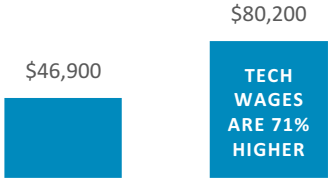
	2016	YoY % Change
IT Services + Custom Software Services	19,760	6.9%
Engineering Services	15,870	-10.5%
Telecommunications Services	14,080	-3.5%
R&D and Testing Labs	10,040	1.6%
Internet Services.	5,420	3.3%

ECONOMIC IMPACT

3.7%

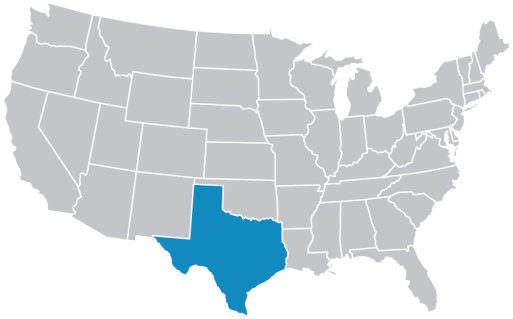
Estimated direct contribution of the tech sector to the Tennessee economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

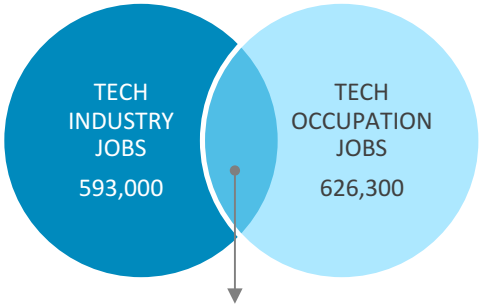
Texas



STATE OF TECHNOLOGY SUMMARY

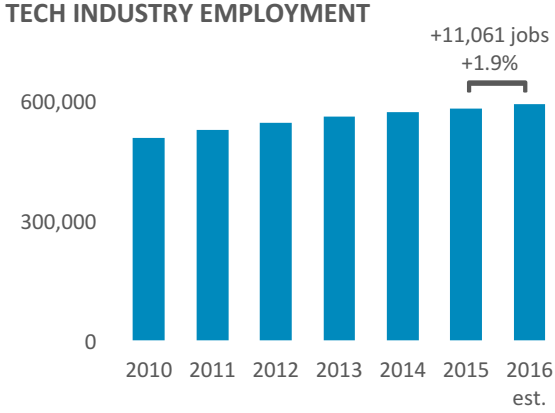
592,960	TECH INDUSTRY EMPLOYMENT
36,245	TECH BUSINESS ESTABLISHMENTS
$102,251	AVERAGE WAGE IN TECH INDUSTRY
5.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
42,638	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

2nd	TECH EMPLOYMENT RANK
13th	AVERAGE TECH WAGE RANK
16th	INNOVATION RANK [per capita]

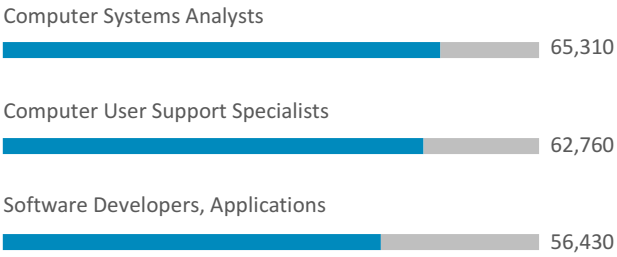


45% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

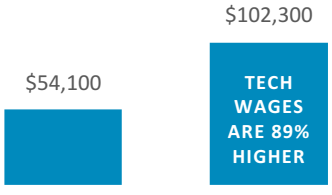
	2016	YoY % Change
IT Services + Custom Software Services	172,500	7.2%
Engineering Services	98,330	-2.1%
Telecommunications Services	80,400	1.4%
Internet Services	39,850	2.3%
R&D and Testing Labs	38,630	4.0%

ECONOMIC IMPACT

7.2%

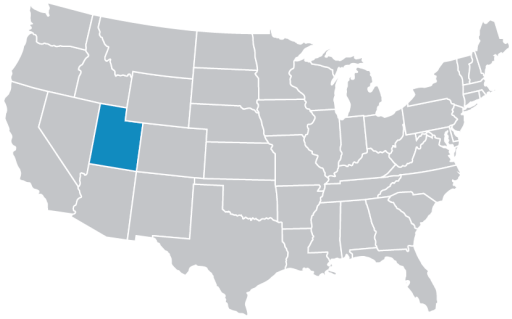
Estimated direct contribution of the tech sector to the Texas economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

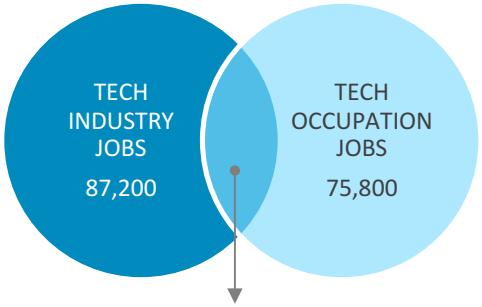
Utah



STATE OF TECHNOLOGY SUMMARY

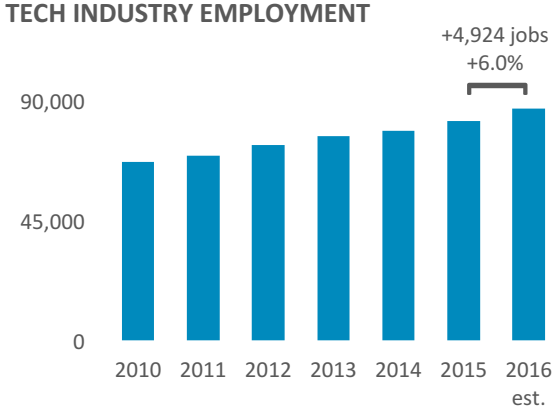
87,234	TECH INDUSTRY EMPLOYMENT
6,325	TECH BUSINESS ESTABLISHMENTS
$81,364	AVERAGE WAGE IN TECH INDUSTRY
6.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
6,114	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

22nd	TECH EMPLOYMENT RANK
31st	AVERAGE TECH WAGE RANK
7th	INNOVATION RANK [per capita]

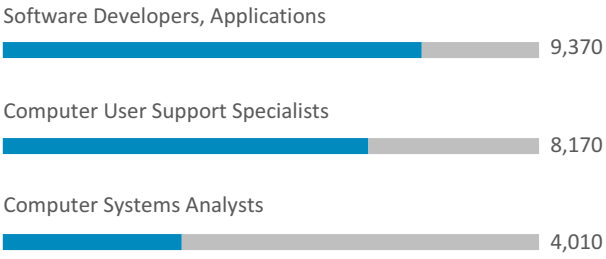


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	24,550	8.0%
Software [packaged]	9,810	14.5%
Engineering Services	9,210	2.4%
Internet Services	8,160	0.6%
Telecommunications Services	7,660	13.5%

ECONOMIC IMPACT

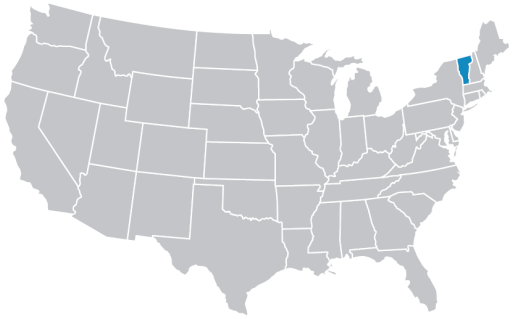
8.4%

Estimated direct contribution of the tech sector to the Utah economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

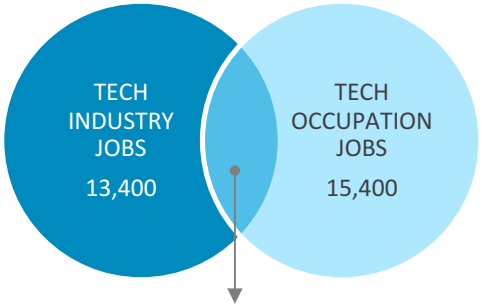
Vermont



STATE OF TECHNOLOGY SUMMARY

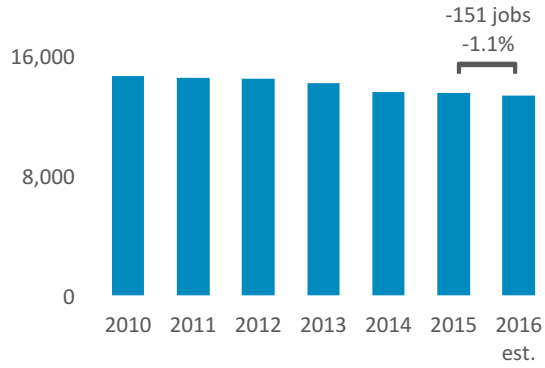
13,376	TECH INDUSTRY EMPLOYMENT
1,494	TECH BUSINESS ESTABLISHMENTS
$83,277	AVERAGE WAGE IN TECH INDUSTRY
4.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
950	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

46th	TECH EMPLOYMENT RANK
26th	AVERAGE TECH WAGE RANK
15th	INNOVATION RANK [per capita]

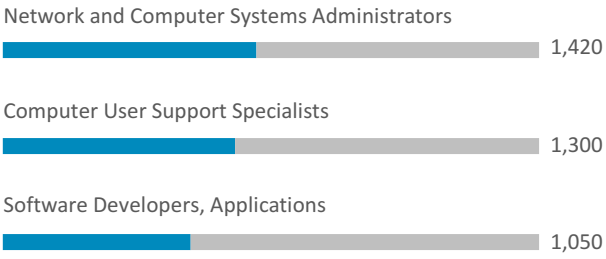


51% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

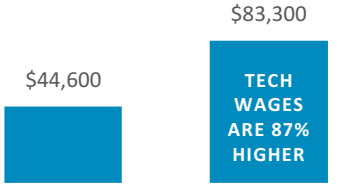
	2016	YoY % Change
IT Services + Custom Software Services	3,910	2.0%
Semiconductor Mfg.	3,220	-9.2%
Engineering Services	1,580	11.7%
Measuring and Control Instruments Mfg.	1,290	-5.0%
Telecommunications Services	1,060	-8.0%

ECONOMIC IMPACT

6.8%

Estimated direct contribution of the tech sector to the Vermont economy

TECH INDUSTRY WAGES



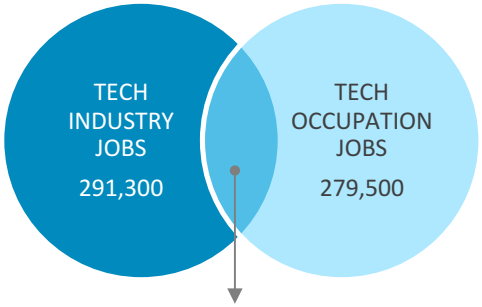
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Virginia

STATE OF TECHNOLOGY SUMMARY

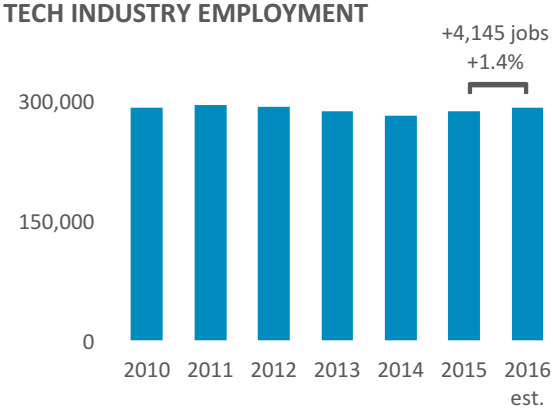
291,312	TECH INDUSTRY EMPLOYMENT
21,238	TECH BUSINESS ESTABLISHMENTS
$112,014	AVERAGE WAGE IN TECH INDUSTRY
7.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
32,579	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

6th	TECH EMPLOYMENT RANK
7th	AVERAGE TECH WAGE RANK
6th	INNOVATION RANK [per capita]

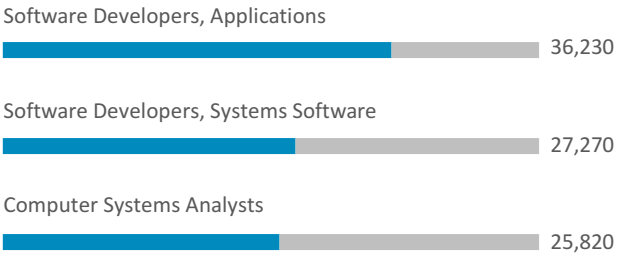


54% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

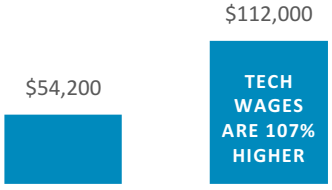
	2016	YoY % Change
IT Services + Custom Software Services	159,980	4.5%
Engineering Services	43,450	-0.3%
Telecommunications Services	23,300	-7.0%
R&D and Testing Labs	22,270	-2.6%
Internet Services	14,780	-0.6%

ECONOMIC IMPACT

10.7%

Estimated direct contribution of the tech sector to the Virginia economy

TECH INDUSTRY WAGES

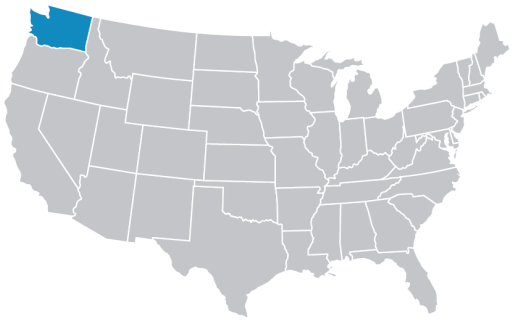


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

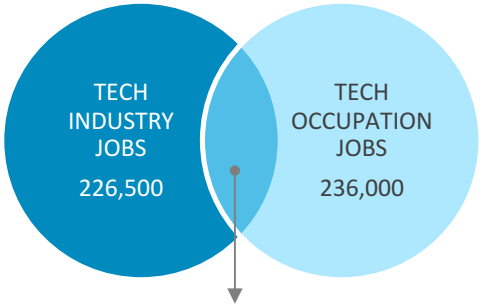
Washington



STATE OF TECHNOLOGY SUMMARY

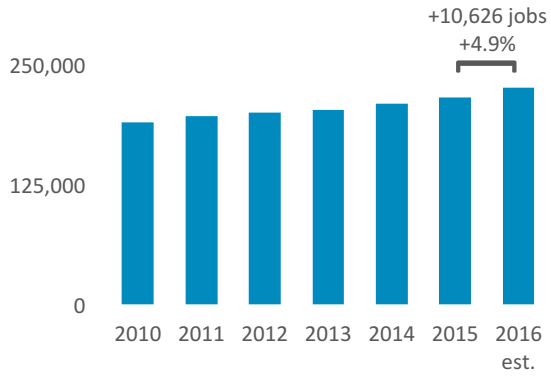
226,452	TECH INDUSTRY EMPLOYMENT
13,362	TECH BUSINESS ESTABLISHMENTS
$134,755	AVERAGE WAGE IN TECH INDUSTRY
7.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
16,528	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

9th	TECH EMPLOYMENT RANK
2nd	AVERAGE TECH WAGE RANK
3rd	INNOVATION RANK [per capita]

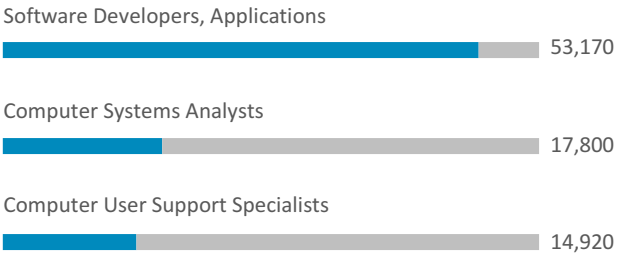


52% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

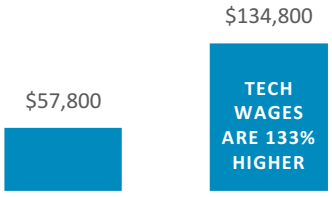
	2016	YoY % Change
Software [packaged]	58,260	4.3%
IT Services + Custom Software Services	51,990	9.1%
Engineering Services	23,330	-2.0%
Internet Services	23,190	23.4%
Telecommunications Services	22,200	0.0%

ECONOMIC IMPACT

13.2%

Estimated direct contribution of the tech sector to the Washington economy

TECH INDUSTRY WAGES

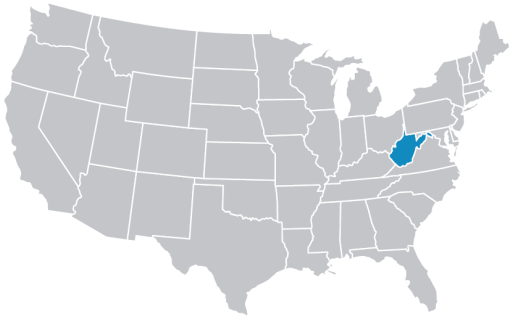


Average State Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

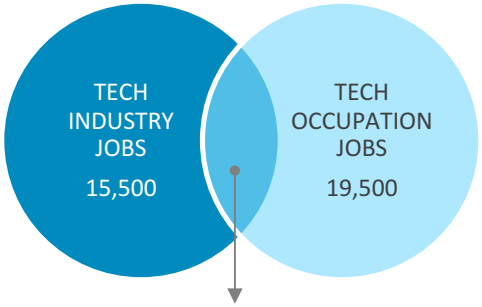
West Virginia



STATE OF TECHNOLOGY SUMMARY

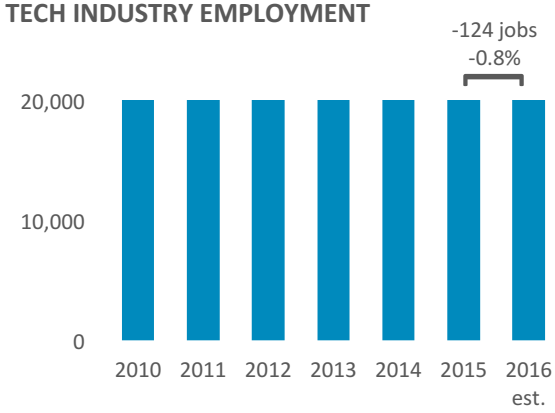
15,460	TECH INDUSTRY EMPLOYMENT
2,009	TECH BUSINESS ESTABLISHMENTS
$66,400	AVERAGE WAGE IN TECH INDUSTRY
2.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,210	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

44th	TECH EMPLOYMENT RANK
48th	AVERAGE TECH WAGE RANK
51st	INNOVATION RANK [per capita]

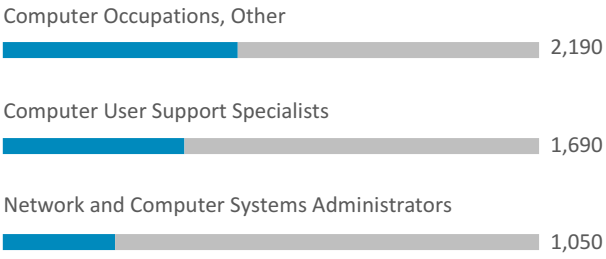


37% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

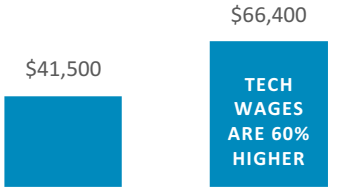
	2016	YoY % Change
IT Services + Custom Software Services	3,620	3.4%
Telecommunications Services	3,480	-0.9%
Engineering Services	2,660	-3.4%
R&D and Testing Labs	2,310	-2.8%
Internet Services	1,160	6.0%

ECONOMIC IMPACT

2.9%

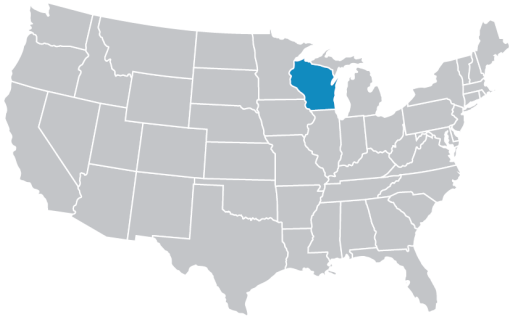
Estimated direct contribution of the tech sector to the West Virginia economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

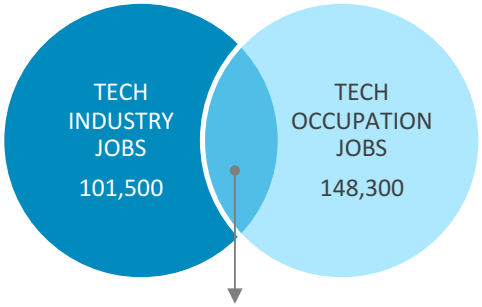
Wisconsin



STATE OF TECHNOLOGY SUMMARY

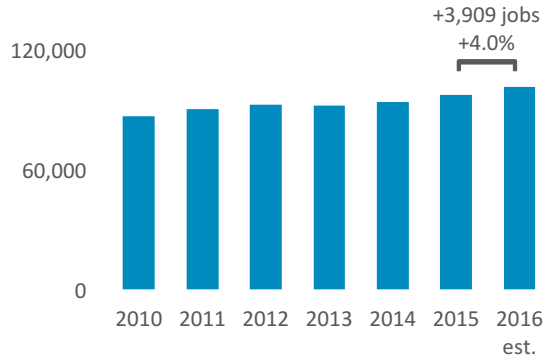
101,542	TECH INDUSTRY EMPLOYMENT
6,755	TECH BUSINESS ESTABLISHMENTS
$79,521	AVERAGE WAGE IN TECH INDUSTRY
3.6%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
10,537	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

20th	TECH EMPLOYMENT RANK
35th	AVERAGE TECH WAGE RANK
40th	INNOVATION RANK [per capita]

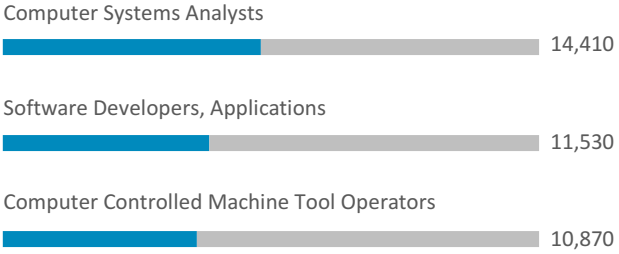


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

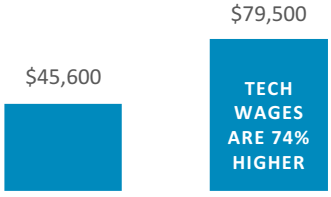
	2016	YoY % Change
IT Services + Custom Software Services	22,580	8.0%
Software [packaged]	14,410	15.4%
Engineering Services	11,960	0.8%
Telecommunications Services	11,060	-1.8%
Measuring and Control Instruments Mfg.	9,450	-1.7%

ECONOMIC IMPACT

5.1%

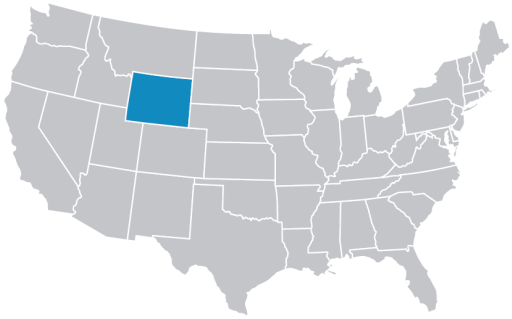
Estimated direct contribution of the tech sector to the Wisconsin economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

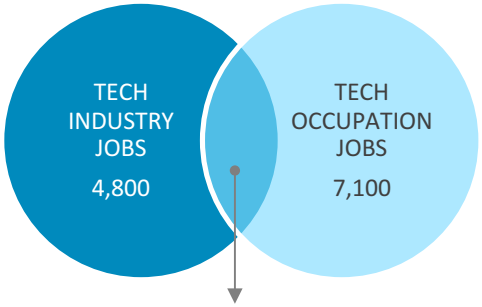
Wyoming



STATE OF TECHNOLOGY SUMMARY

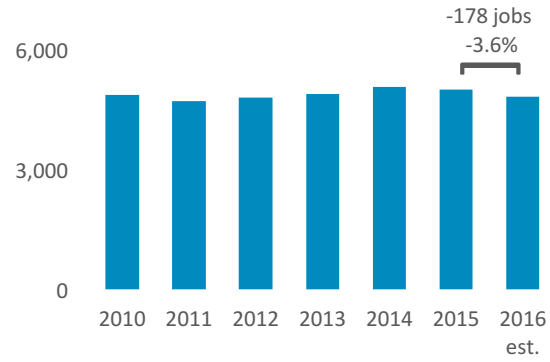
4,820	TECH INDUSTRY EMPLOYMENT
970	TECH BUSINESS ESTABLISHMENTS
$63,899	AVERAGE WAGE IN TECH INDUSTRY
1.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
371	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

51st	TECH EMPLOYMENT RANK
49th	AVERAGE TECH WAGE RANK
17th	INNOVATION RANK [per capita]

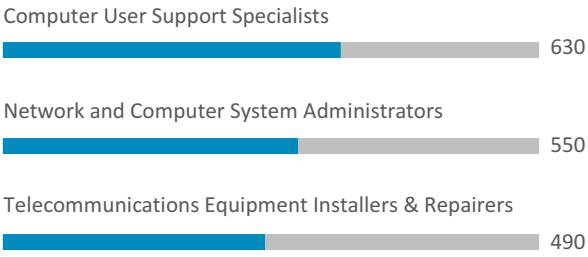


40% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

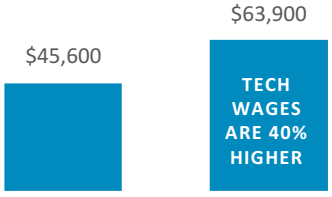
	2016	YoY % Change
Telecommunications Services	1,680	2.4%
Engineering Services	1,120	-7.9%
IT Services + Custom Software Services	750	2.4%
R&D and Testing Labs	750	-7.1%
Internet Services	240	6.3%

ECONOMIC IMPACT

2.2%

Estimated direct contribution of the tech sector to the Wyoming economy

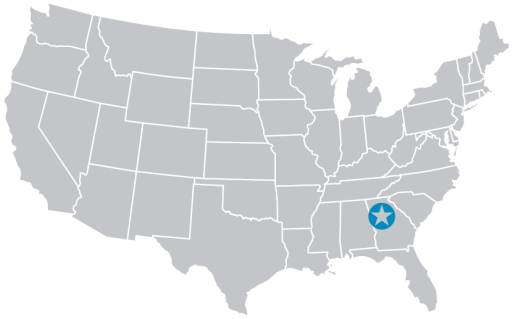
TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

MSA REPORTS

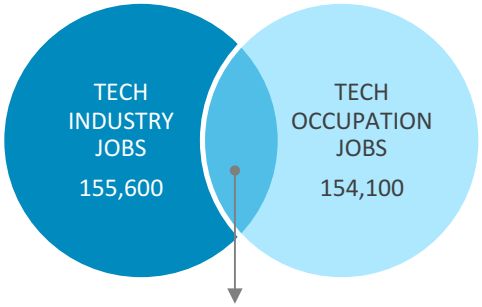
Atlanta



Full MSA name: Atlanta-Sandy Springs-Roswell, GA

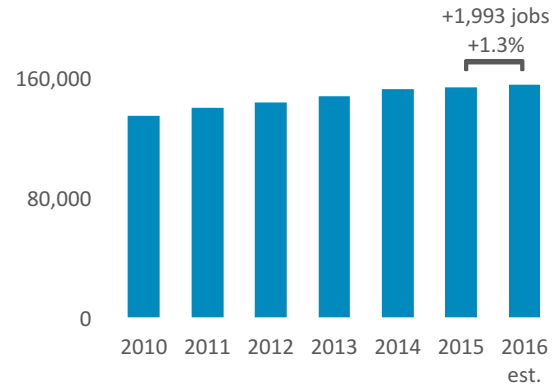
STATE OF TECHNOLOGY SUMMARY

155,566	TECH INDUSTRY EMPLOYMENT
11,702	TECH BUSINESS ESTABLISHMENTS
$99,585	AVERAGE WAGE IN TECH INDUSTRY
6.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
18,259	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

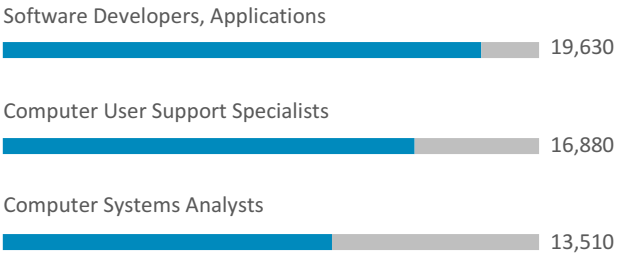


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

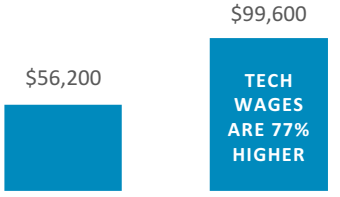
	2016	YoY % Change
IT Services + Custom Software Services	48,500	1.0%
Telecommunications Services	37,020	1.1%
Engineering Services	19,570	1.4%
Software [packaged]	12,770	1.7%
Computer, Peripheral, & Software Distribution	11,260	0.4%

ECONOMIC IMPACT

10.5%

Estimated direct contribution of the tech sector to the Atlanta economy

TECH INDUSTRY WAGES

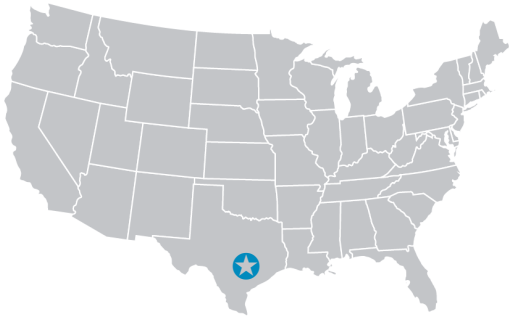


Average MSA Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

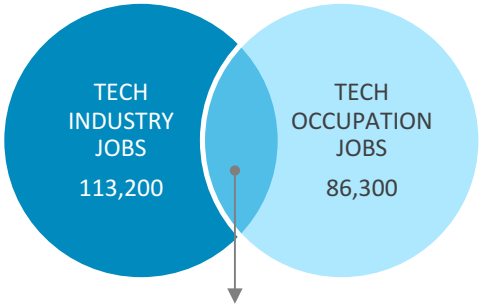
Austin



Full MSA name: Austin-Round Rock, TX

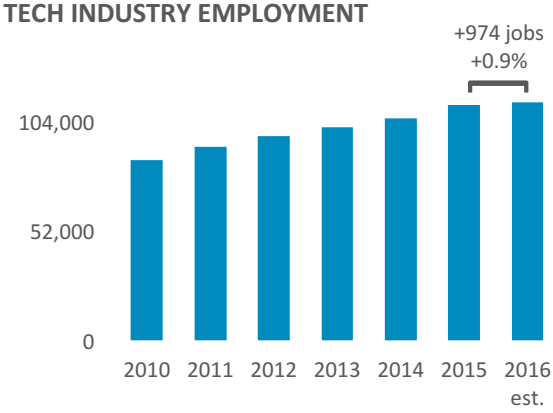
STATE OF TECHNOLOGY SUMMARY

113,176	TECH INDUSTRY EMPLOYMENT
4,966	TECH BUSINESS ESTABLISHMENTS
$108,349	AVERAGE WAGE IN TECH INDUSTRY
12.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
6,908	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

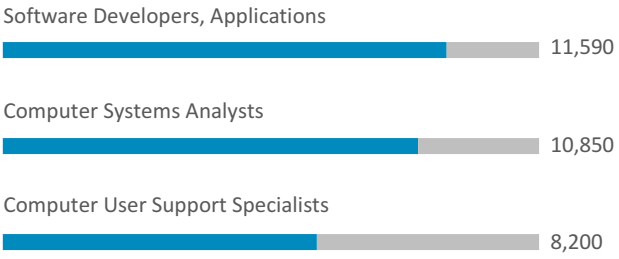


49% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

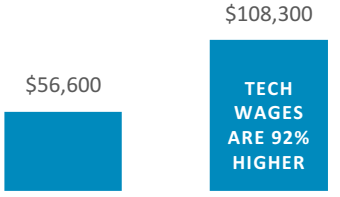
	2016	YoY % Change
IT Services + Custom Software Services	31,700	3.3%
Computer, Peripheral, & Software Distribution	18,670	3.6%
Semiconductor Mfg.	10,660	0.5%
Computer & Peripheral Equipment Mfg.	10,500	-9.5%
Engineering Services	9,700	-0.3%

ECONOMIC IMPACT

20.7%

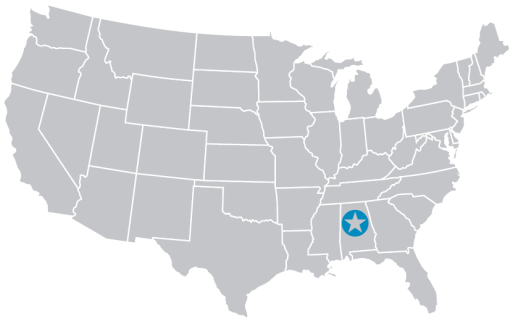
Estimated direct contribution of the tech sector to the Austin economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

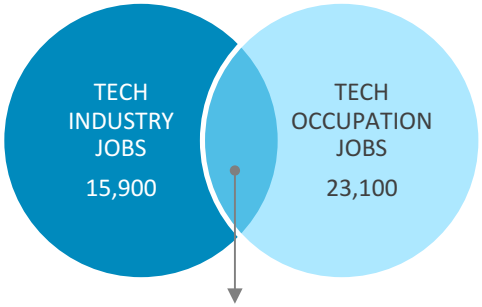
Birmingham



Full MSA name: Birmingham-Hoover, AL

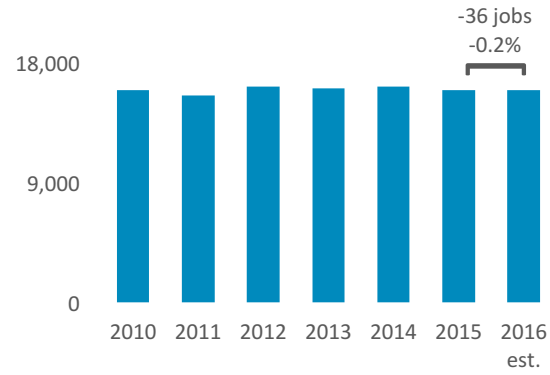
STATE OF TECHNOLOGY SUMMARY

15,933	TECH INDUSTRY EMPLOYMENT
1,082	TECH BUSINESS ESTABLISHMENTS
$78,670	AVERAGE WAGE IN TECH INDUSTRY
3.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,654	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

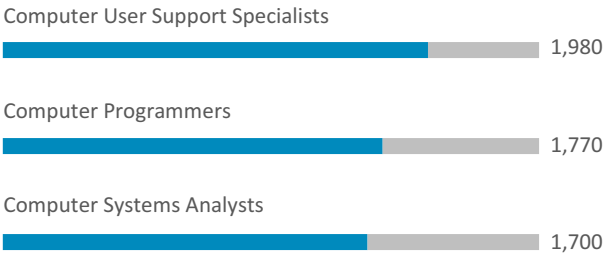


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

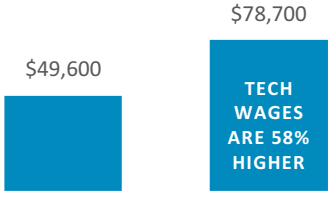
	2016	YoY % Change
IT Services + Custom Software Services	5,090	0.0%
Telecommunications Services	4,160	-3.0%
Engineering Services	2,660	-0.2%
Computer & Electronics Repair & Maintenance	1,210	1.1%
R&D and Testing Labs	1,050	3.8%

ECONOMIC IMPACT

4.3%

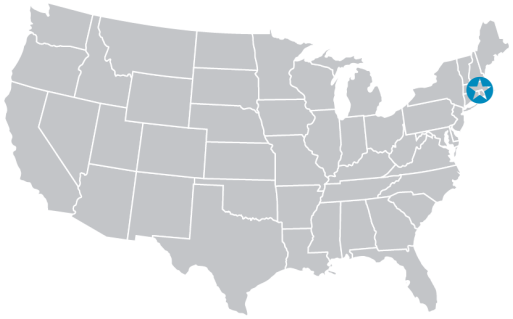
Estimated direct contribution of the tech sector to the Birmingham economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

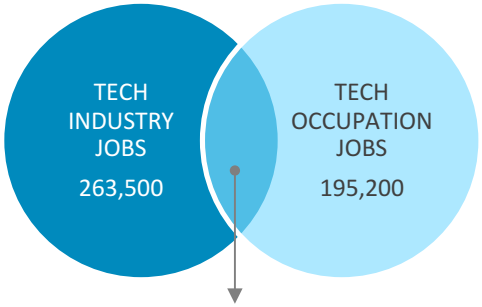
Boston



Full MSA name: Boston-Cambridge-Newton, MA-NH

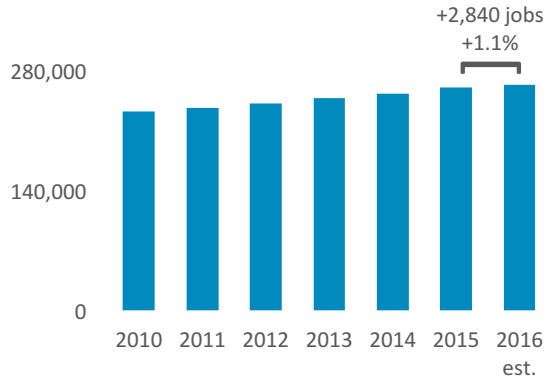
STATE OF TECHNOLOGY SUMMARY

263,514	TECH INDUSTRY EMPLOYMENT
11,038	TECH BUSINESS ESTABLISHMENTS
$134,903	AVERAGE WAGE IN TECH INDUSTRY
10.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
21,302	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

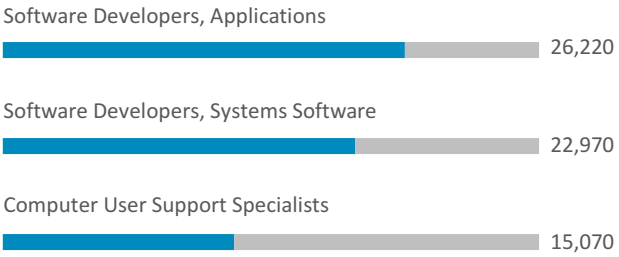


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

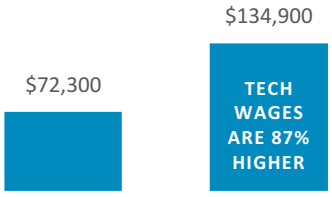
	2016	YoY % Change
IT Services + Custom Software Services	68,750	2.3%
R&D and Testing Labs	49,690	3.6%
Software [packaged]	28,100	0.5%
Measuring and Control Instruments Mfg.	22,400	-0.1%
Engineering Services	21,330	2.2%

ECONOMIC IMPACT

14.5%

Estimated direct contribution of the tech sector to the Boston economy

TECH INDUSTRY WAGES



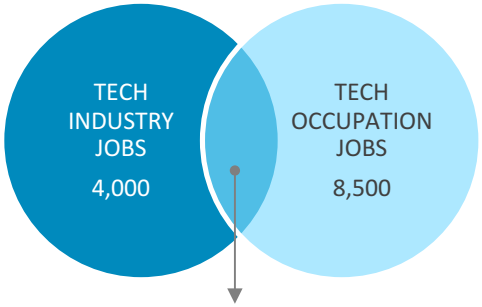
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Chattanooga

Full MSA name: Chattanooga, TN-GA

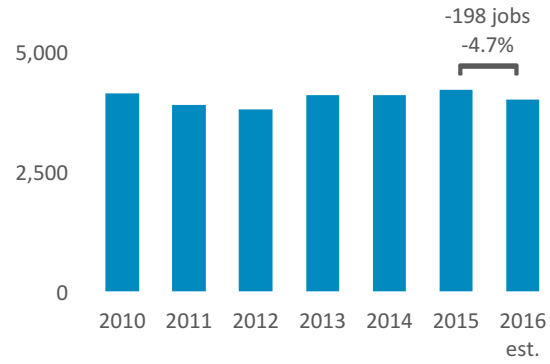
STATE OF TECHNOLOGY SUMMARY

4,007	TECH INDUSTRY EMPLOYMENT
441	TECH BUSINESS ESTABLISHMENTS
$69,002	AVERAGE WAGE IN TECH INDUSTRY
1.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
579	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

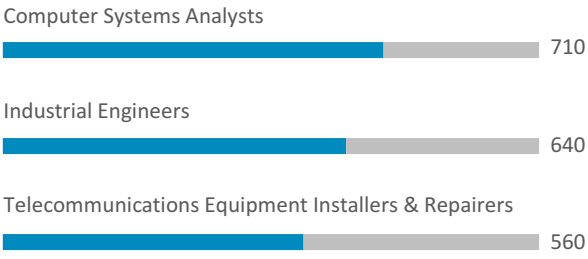


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

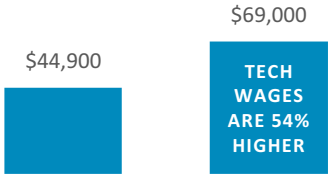
	2016	YoY % Change
Telecommunications Services	1,210	1.1%
Engineering Services	1,120	-17.8%
IT Services + Custom Software Services	740	-0.7%
Internet Services	380	4.7%
R&D and Testing Labs	160	-2.3%

ECONOMIC IMPACT

2.7%

Estimated direct contribution of the tech sector to the Chattanooga economy

TECH INDUSTRY WAGES



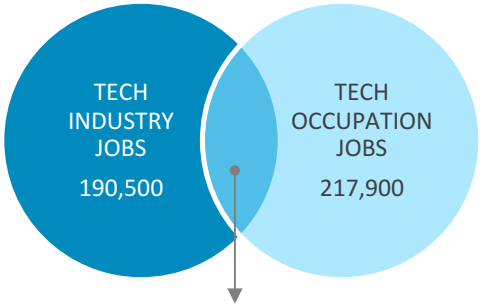
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Chicago

Full MSA name: Chicago-Naperville-Elgin, IL-IN-WI

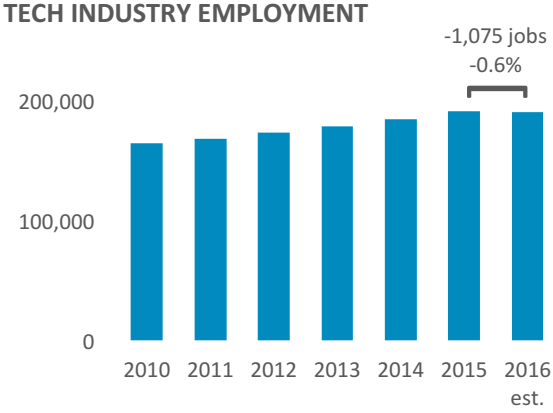
STATE OF TECHNOLOGY SUMMARY

190,456	TECH INDUSTRY EMPLOYMENT
13,968	TECH BUSINESS ESTABLISHMENTS
$101,946	AVERAGE WAGE IN TECH INDUSTRY
4.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
25,595	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

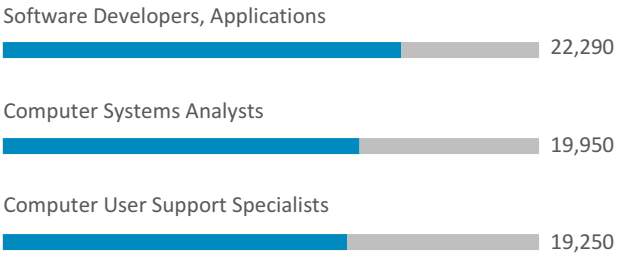


44% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

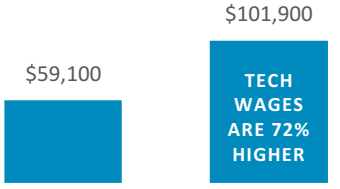
	2016	YoY % Change
IT Services + Custom Software Services	63,530	1.6%
Telecommunications Services	25,180	-4.8%
Engineering Services	22,190	1.7%
R&D and Testing Labs	21,540	-4.2%
Internet Services	16,230	0.8%

ECONOMIC IMPACT

6.0%

Estimated direct contribution of the tech sector to the Chicago economy

TECH INDUSTRY WAGES



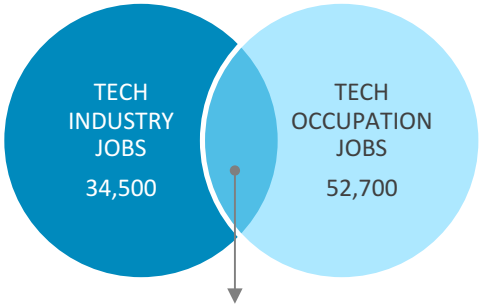
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Cleveland

Full MSA name: Cleveland-Elyria, OH

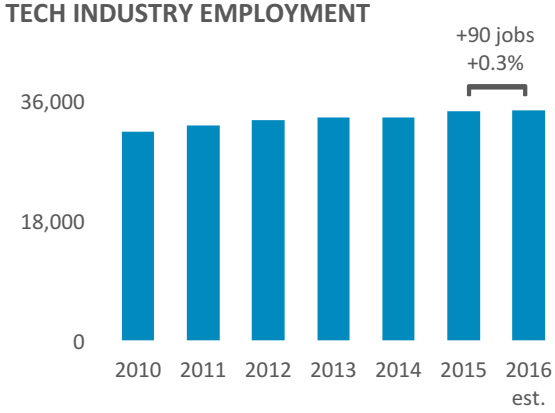
STATE OF TECHNOLOGY SUMMARY

34,521	TECH INDUSTRY EMPLOYMENT
2,608	TECH BUSINESS ESTABLISHMENTS
$78,027	AVERAGE WAGE IN TECH INDUSTRY
3.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
4,250	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

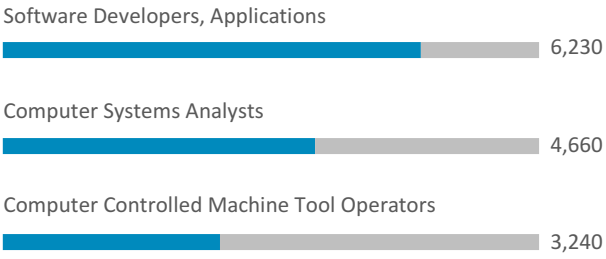


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

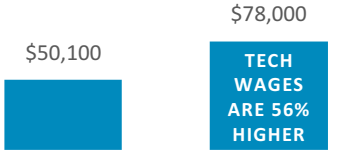
	2016	YoY % Change
IT Services + Custom Software Services	11,710	1.1%
Engineering Services	5,070	-0.7%
Measuring and Control Instruments Mfg.	3,920	2.0%
Telecommunications Services	3,770	-4.3%
R&D and Testing Labs	3,260	2.0%

ECONOMIC IMPACT

4.5%

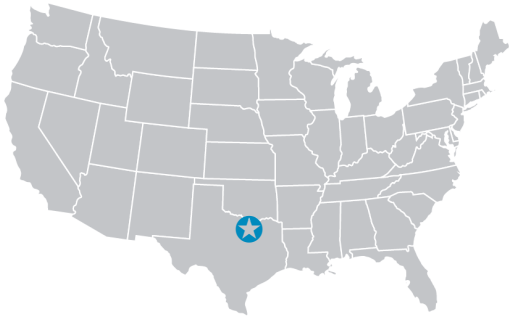
Estimated direct contribution of the tech sector to the Cleveland economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

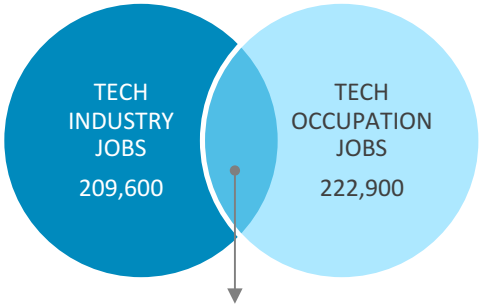
Dallas



Full MSA name: Dallas-Fort Worth-Arlington, TX

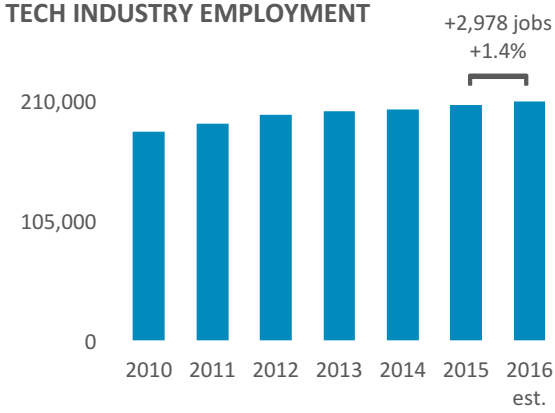
STATE OF TECHNOLOGY SUMMARY

209,568	TECH INDUSTRY EMPLOYMENT
10,861	TECH BUSINESS ESTABLISHMENTS
$108,785	AVERAGE WAGE IN TECH INDUSTRY
6.3%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
21,384	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

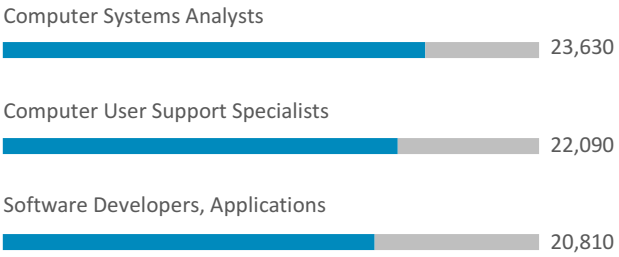


50% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

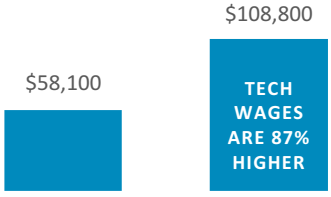
	2016	YoY % Change
IT Services + Custom Software Services	66,120	1.3%
Telecommunications Services	35,000	2.6%
Engineering Services	20,060	0.1%
Internet Services	16,070	-0.7%
Semiconductor Mfg.	14,210	0.1%

ECONOMIC IMPACT

10.8%

Estimated direct contribution of the tech sector to the Dallas economy

TECH INDUSTRY WAGES



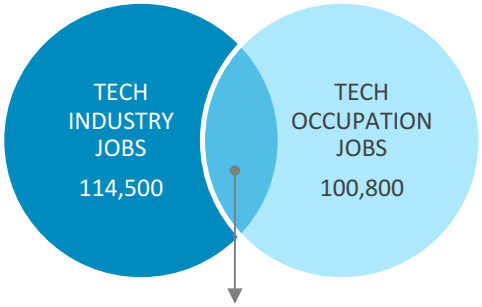
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Denver

Full MSA name: Denver-Aurora-Lakewood, CO

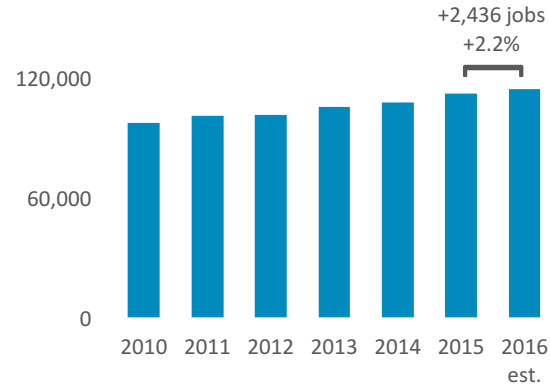
STATE OF TECHNOLOGY SUMMARY

114,495	TECH INDUSTRY EMPLOYMENT
9,251	TECH BUSINESS ESTABLISHMENTS
$109,039	AVERAGE WAGE IN TECH INDUSTRY
8.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
10,423	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

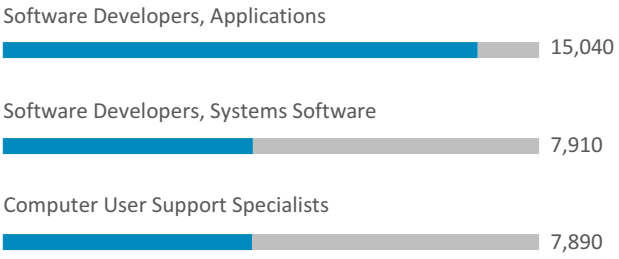


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

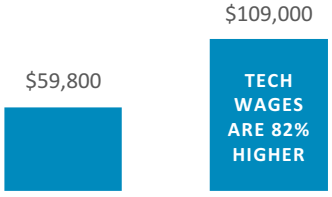
	2016	YoY % Change
IT Services + Custom Software Services	32,100	3.9%
Engineering Services	22,640	0.0%
Telecommunications Services	19,080	1.3%
Internet Services	9,350	3.3%
Software [packaged]	6,860	2.6%

ECONOMIC IMPACT

11.9%

Estimated direct contribution of the tech sector to the Denver economy

TECH INDUSTRY WAGES



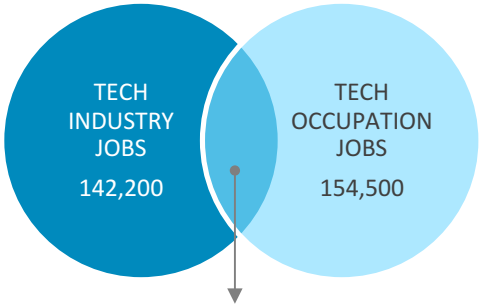
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Detroit

Full MSA name: Detroit-Warren-Dearborn, MI

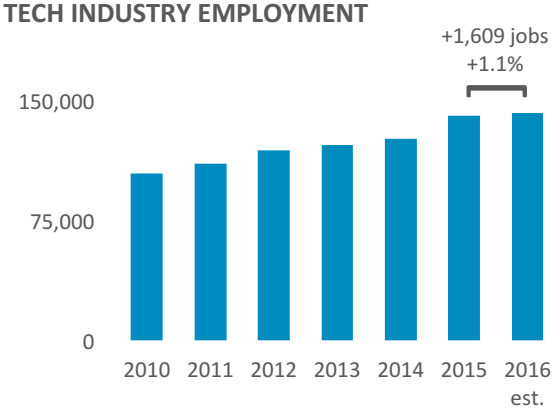
STATE OF TECHNOLOGY SUMMARY

142,212	TECH INDUSTRY EMPLOYMENT
4,174	TECH BUSINESS ESTABLISHMENTS
$92,637	AVERAGE WAGE IN TECH INDUSTRY
7.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
19,661	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

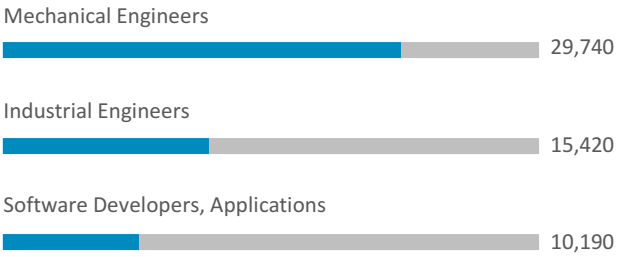


50% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

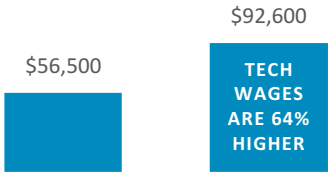
	2016	YoY % Change
Engineering Services	42,340	2.0%
R&D and Testing Labs	41,240	0.7%
IT Services + Custom Software Services	33,710	1.1%
Telecommunications Services	8,270	-0.3%
Internet Services	3,580	4.9%

ECONOMIC IMPACT

8.4%

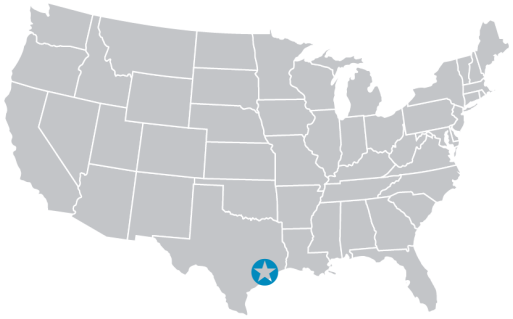
Estimated direct contribution of the tech sector to the Detroit economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

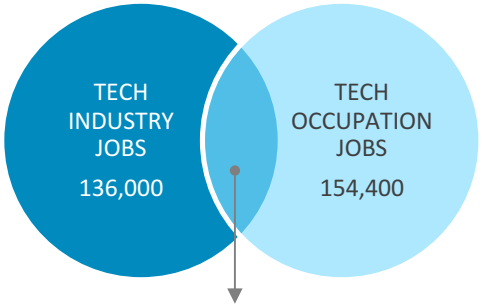
Houston



Full MSA name: Houston-The Woodlands-Sugar Land, TX

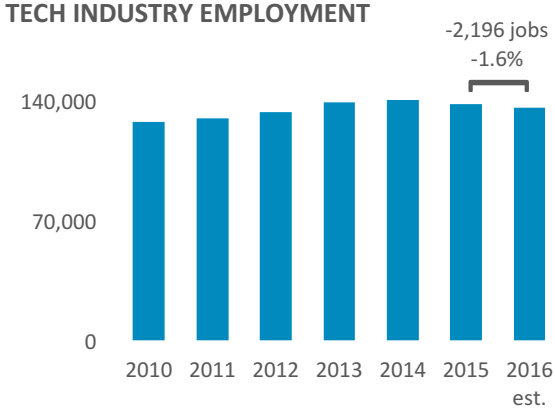
STATE OF TECHNOLOGY SUMMARY

135,974	TECH INDUSTRY EMPLOYMENT
8,097	TECH BUSINESS ESTABLISHMENTS
$104,677	AVERAGE WAGE IN TECH INDUSTRY
4.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
7,420	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

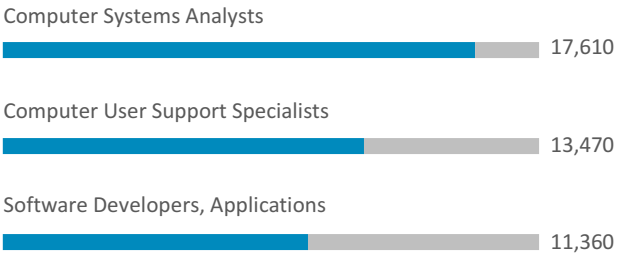


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

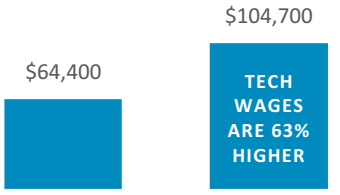
	2016	YoY % Change
Engineering Services	48,210	-3.1%
IT Services + Custom Software Services	30,110	-1.4%
R&D and Testing Labs	14,280	2.9%
Telecommunications Services	13,900	1.0%
Measuring and Control Instruments Mfg.	6,860	-8.6%

ECONOMIC IMPACT

4.9%

Estimated direct contribution of the tech sector to the Houston economy

TECH INDUSTRY WAGES



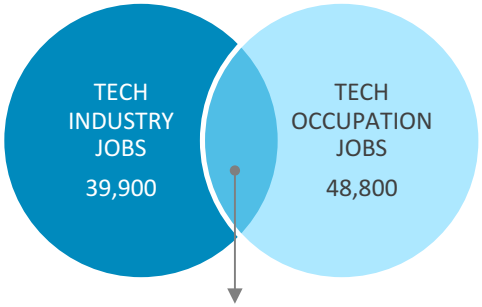
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Indianapolis

Full MSA name: Indianapolis-Carmel-Anderson, IN

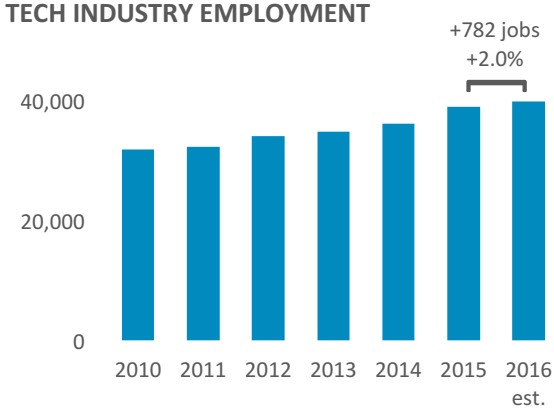
STATE OF TECHNOLOGY SUMMARY

39,858	TECH INDUSTRY EMPLOYMENT
2,610	TECH BUSINESS ESTABLISHMENTS
$81,790	AVERAGE WAGE IN TECH INDUSTRY
4.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
4,115	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

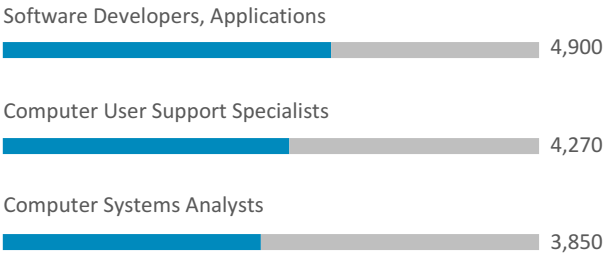


47% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

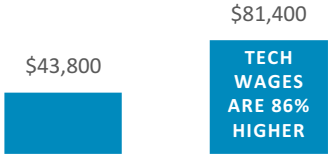
	2016	YoY % Change
IT Services + Custom Software Services	14,810	4.5%
Engineering Services	5,450	2.1%
Telecommunications Services	4,470	-1.2%
Internet Services	3,980	-2.9%
R&D and Testing Labs	3,680	6.2%

ECONOMIC IMPACT

4.9%

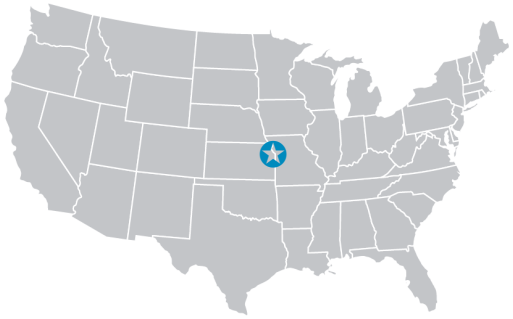
Estimated direct contribution of the tech sector to the Indianapolis economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

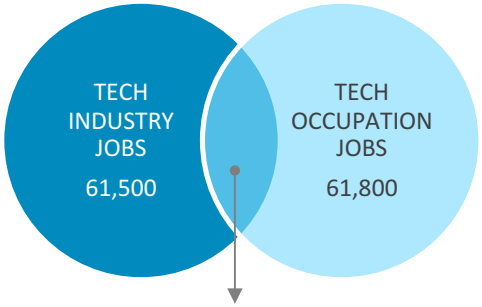
Kansas City



Full MSA name: Kansas City, MO-KS

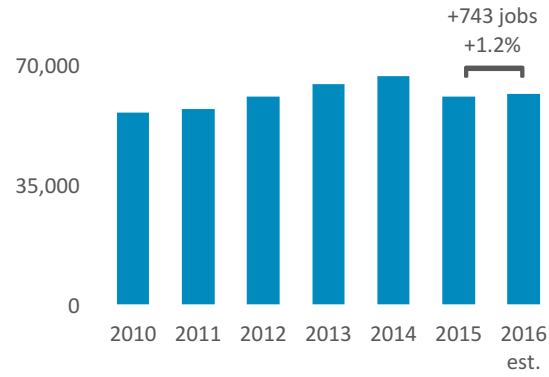
STATE OF TECHNOLOGY SUMMARY

61,465	TECH INDUSTRY EMPLOYMENT
3,697	TECH BUSINESS ESTABLISHMENTS
$89,400	AVERAGE WAGE IN TECH INDUSTRY
6.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
4,699	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

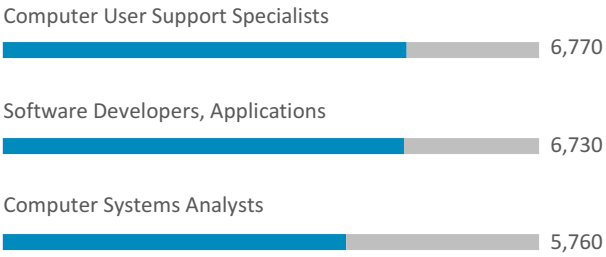


48% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	23,760	4.0%
Engineering Services	13,610	0.3%
Telecommunications Services	7,010	-2.4%
R&D and Testing Labs	4,520	2.1%
Internet Services	4,440	-0.8%

ECONOMIC IMPACT

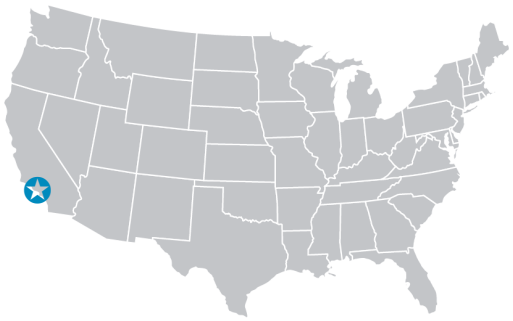
7.6%

Estimated direct contribution of the tech sector to the Kansas City economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

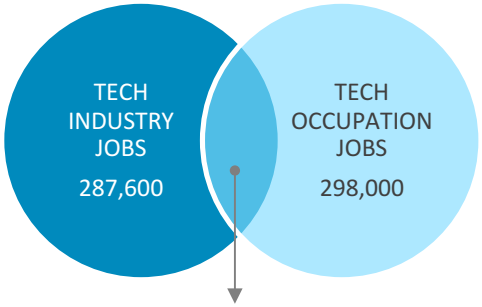
Los Angeles



Full MSA name: Los Angeles-Long Beach-Anaheim, CA

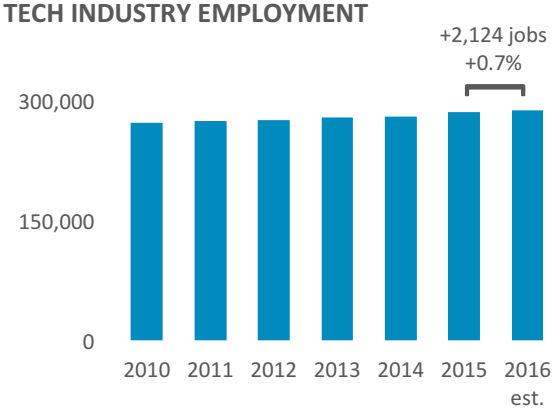
STATE OF TECHNOLOGY SUMMARY

287,639	TECH INDUSTRY EMPLOYMENT
14,743	TECH BUSINESS ESTABLISHMENTS
$117,123	AVERAGE WAGE IN TECH INDUSTRY
4.9%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
26,784	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

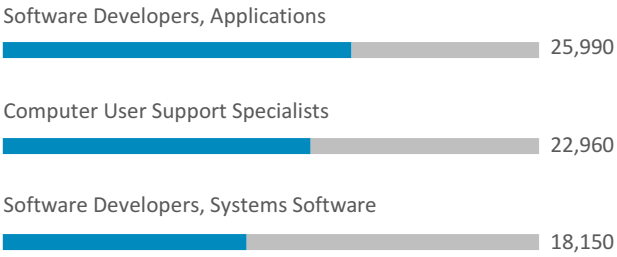


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	51,900	2.6%
Measuring and Control Instruments Mfg.	38,300	0.9%
Engineering Services	37,060	-7.0%
Telecommunications Services	30,370	-1.6%
R&D and Testing Labs	29,900	0.3%

ECONOMIC IMPACT

7.4%

Estimated direct contribution of the tech sector to the Los Angeles economy

TECH INDUSTRY WAGES

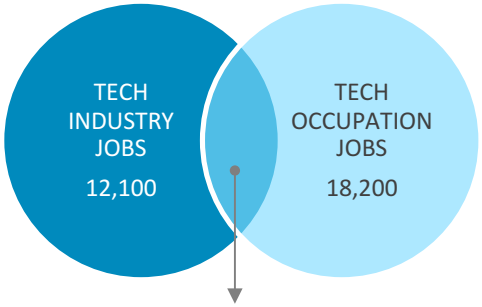
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Memphis

Full MSA name: Memphis, TN-MS-AR

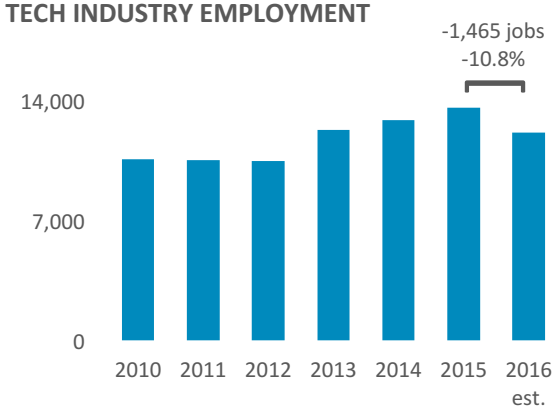
STATE OF TECHNOLOGY SUMMARY

12,147	TECH INDUSTRY EMPLOYMENT
907	TECH BUSINESS ESTABLISHMENTS
$64,892	AVERAGE WAGE IN TECH INDUSTRY
2.0%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
1,657	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

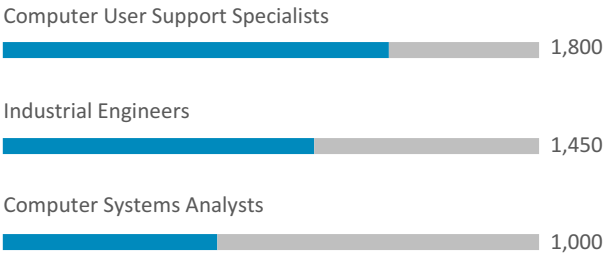


36% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

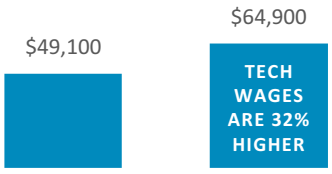
	2016	YoY % Change
Engineering Services	3,310	-30.1%
Telecommunications Services	2,590	-1.0%
IT Services + Custom Software Services	2,490	0.4%
R&D and Testing Labs	850	2.4%
Computer, Peripheral, & Software Distribution	770	-0.5%

ECONOMIC IMPACT

2.6%

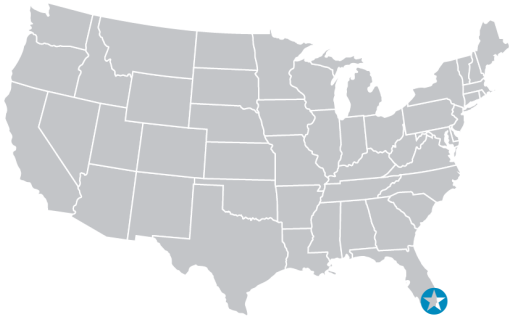
Estimated direct contribution of the tech sector to the Memphis economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

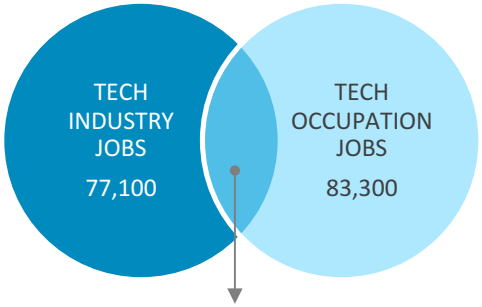
Miami



Full MSA name: Miami-Fort Lauderdale-West Palm Beach, FL

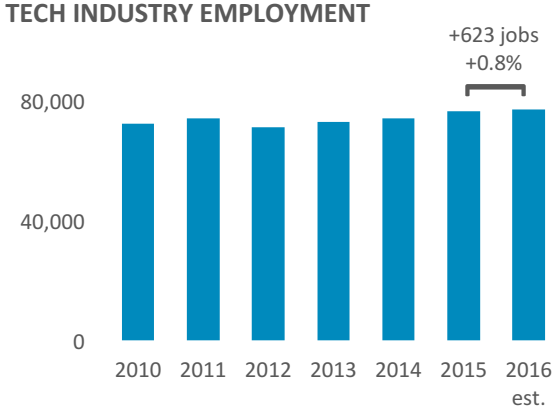
STATE OF TECHNOLOGY SUMMARY

77,109	TECH INDUSTRY EMPLOYMENT
8,167	TECH BUSINESS ESTABLISHMENTS
$89,748	AVERAGE WAGE IN TECH INDUSTRY
3.2%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
6,821	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

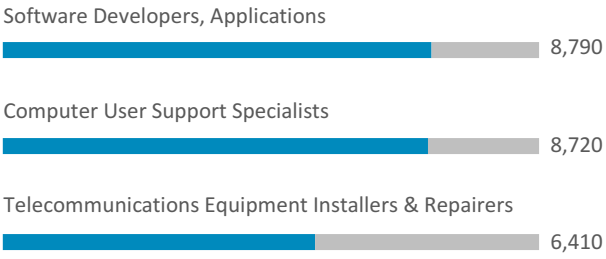


40% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

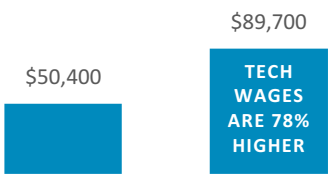
	2016	YoY % Change
IT Services + Custom Software Services	17,510	1.8%
Telecommunications Services	15,230	-0.3%
Engineering Services	12,680	3.1%
Internet Services	6,680	0.0%
Computer, Peripheral, & Software Distribution	5,160	1.9%

ECONOMIC IMPACT

5.3%

Estimated direct contribution of the tech sector to the Miami economy

TECH INDUSTRY WAGES



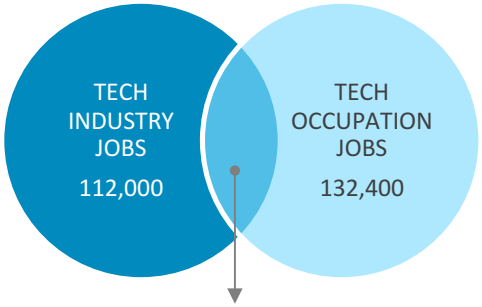
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Minneapolis

Full MSA name: Minneapolis-St. Paul-Bloomington, MN-WI

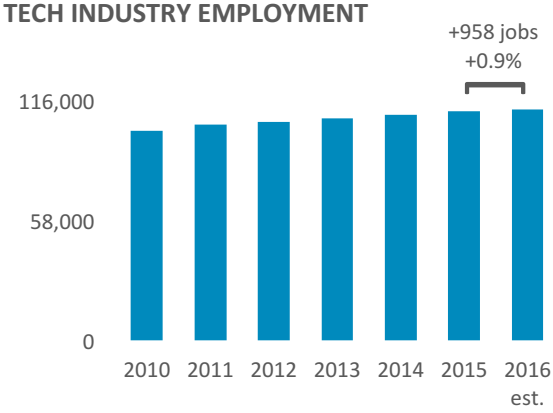
STATE OF TECHNOLOGY SUMMARY

111,971	TECH INDUSTRY EMPLOYMENT
4,500	TECH BUSINESS ESTABLISHMENTS
$98,512	AVERAGE WAGE IN TECH INDUSTRY
6.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
13,124	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

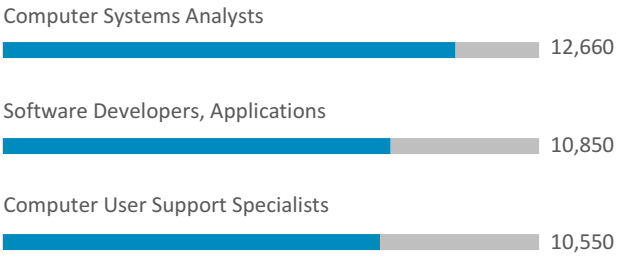


50% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

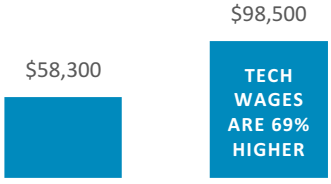
	2016	YoY % Change
IT Services + Custom Software Services	29,640	3.5%
Measuring and Control Instruments Mfg.	24,340	0.9%
Engineering Services	10,840	2.7%
R&D and Testing Labs	8,640	0.4%
Telecommunications Services	8,570	-2.7%

ECONOMIC IMPACT

8.6%

Estimated direct contribution of the tech sector to the Minneapolis economy

TECH INDUSTRY WAGES



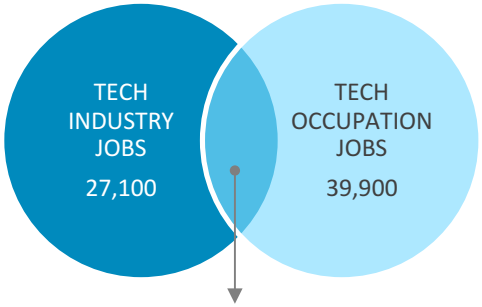
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

Nashville

Full MSA name: Nashville-Davidson--Murfreesboro--Franklin, TN

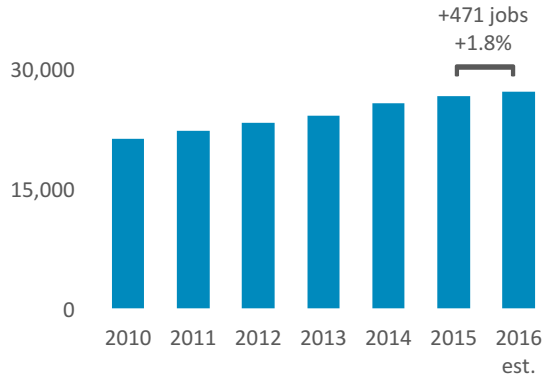
STATE OF TECHNOLOGY SUMMARY

27,103	TECH INDUSTRY EMPLOYMENT
2,346	TECH BUSINESS ESTABLISHMENTS
$83,756	AVERAGE WAGE IN TECH INDUSTRY
3.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,871	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

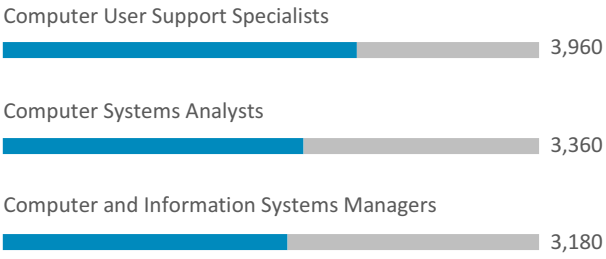


45% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

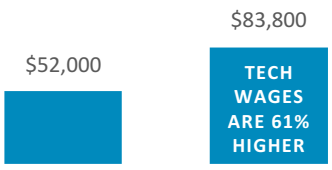
	2016	YoY % Change
IT Services + Custom Software Services	8,500	5.0%
Telecommunications Services	4,380	-3.0%
Engineering Services	4,320	1.3%
Internet Services	3,680	2.0%
Software [packaged]	1,520	13.7%

ECONOMIC IMPACT

4.3%

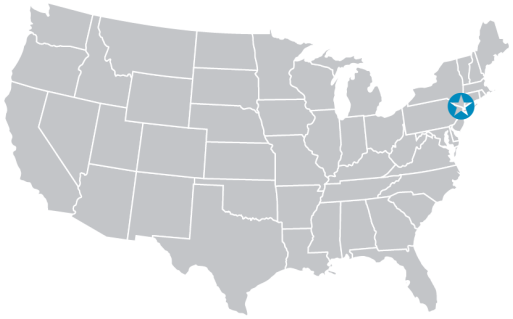
Estimated direct contribution of the tech sector to the Nashville economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

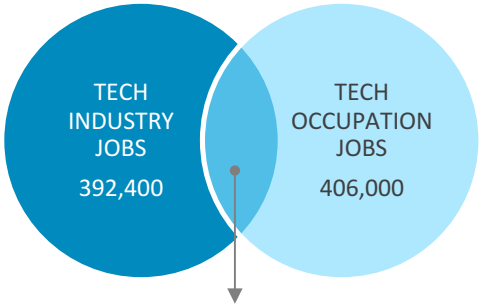
New York City



Full MSA name: New York-Newark-Jersey City, NY-NJ-PA

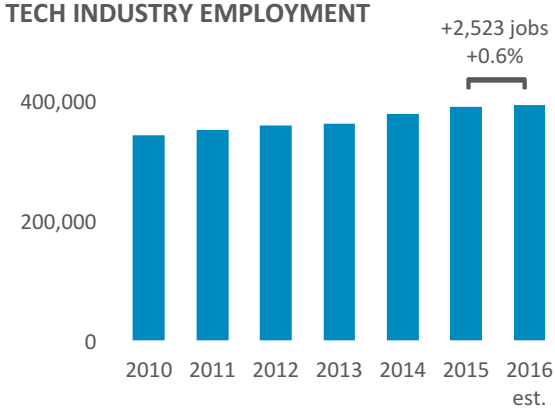
STATE OF TECHNOLOGY SUMMARY

392,424	TECH INDUSTRY EMPLOYMENT
24,237	TECH BUSINESS ESTABLISHMENTS
$130,718	AVERAGE WAGE IN TECH INDUSTRY
4.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
42,894	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

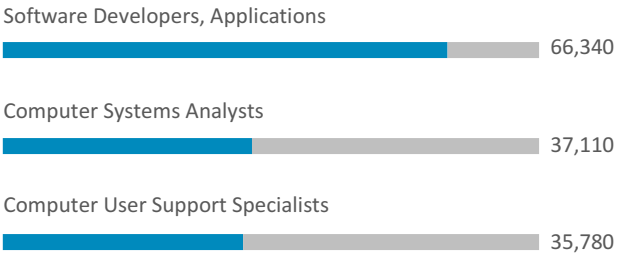


45% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

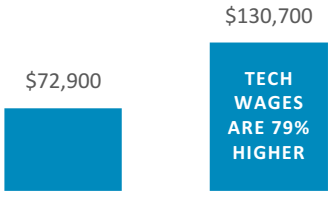
	2016	YoY % Change
IT Services + Custom Software Services	129,470	0.8%
Telecommunications Services	54,660	-1.3%
R&D and Testing Labs	51,690	0.6%
Internet Services	48,170	4.7%
Engineering Services	38,240	-1.2%

ECONOMIC IMPACT

6.4%

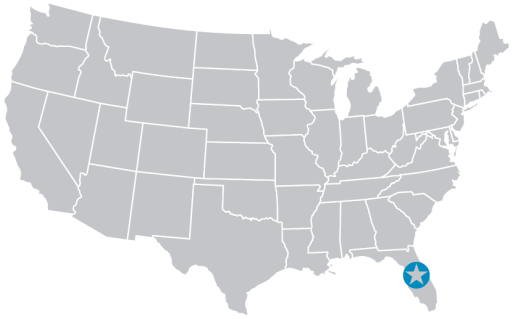
Estimated direct contribution of the tech sector to the New York economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

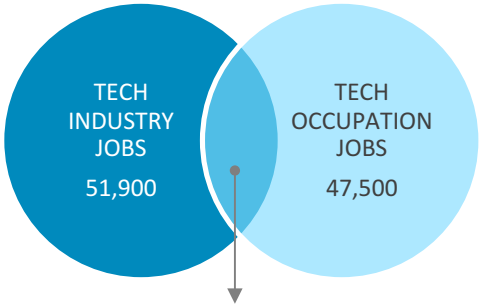
Orlando



Full MSA name: Orlando-Kissimmee-Sanford, FL

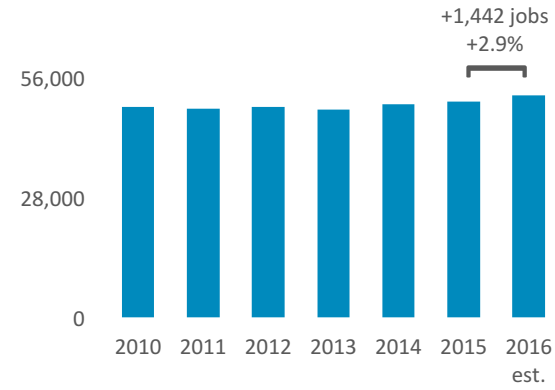
STATE OF TECHNOLOGY SUMMARY

51,929	TECH INDUSTRY EMPLOYMENT
3,190	TECH BUSINESS ESTABLISHMENTS
$86,892	AVERAGE WAGE IN TECH INDUSTRY
4.6%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
4,795	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

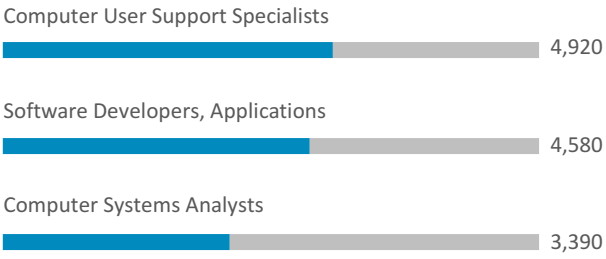


42% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	11,260	7.6%
Telecommunications Services	8,400	-0.7%
Engineering Services	8,210	6.0%
R&D and Testing Labs	5,480	6.5%
Space and Defense Systems Mfg.	4,010	0.0%

ECONOMIC IMPACT

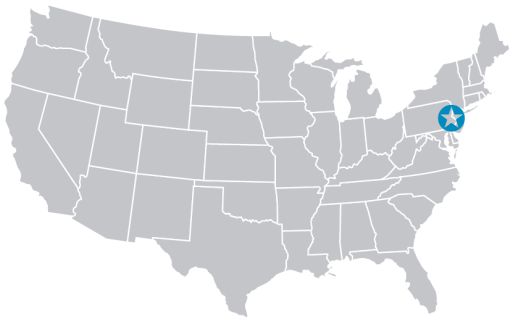
7.7%

Estimated direct contribution of the tech sector to the Orlando economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

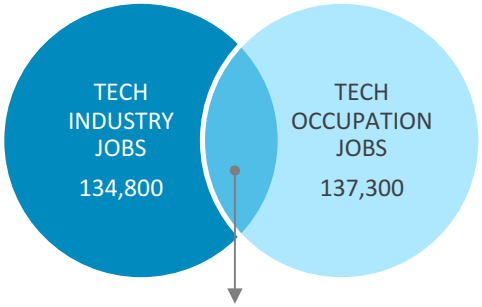
Philadelphia



Full MSA name: Philadelphia-Camden-Wilmington, PA-NJ-DE-MD

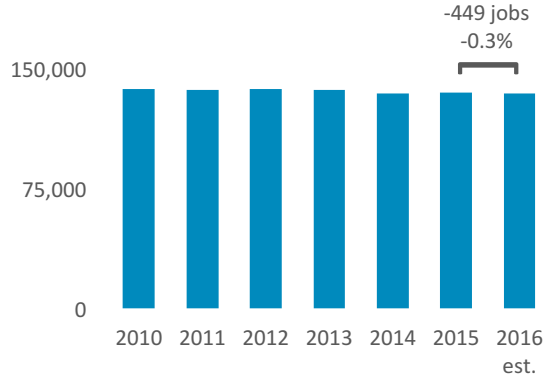
STATE OF TECHNOLOGY SUMMARY

134,830	TECH INDUSTRY EMPLOYMENT
8,326	TECH BUSINESS ESTABLISHMENTS
$109,684	AVERAGE WAGE IN TECH INDUSTRY
5.0%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
13,965	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

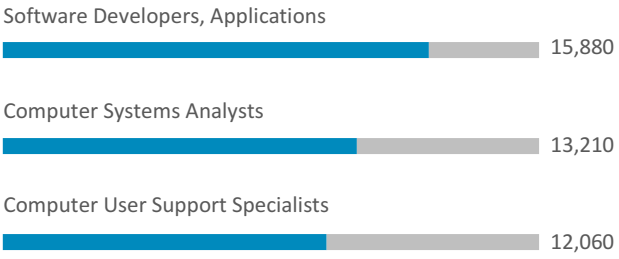


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

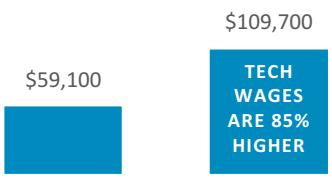
	2016	YoY % Change
IT Services + Custom Software Services	37,550	0.5%
R&D and Testing Labs	27,670	-1.3%
Engineering Services	17,170	1.3%
Telecommunications Services	16,150	-0.3%
Measuring and Control Instruments Mfg.	11,690	0.4%

ECONOMIC IMPACT

7.1%

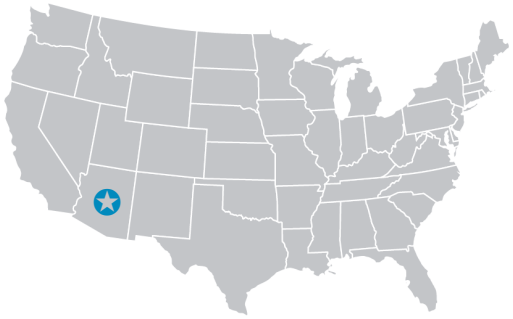
Estimated direct contribution of the tech sector to the Philadelphia economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

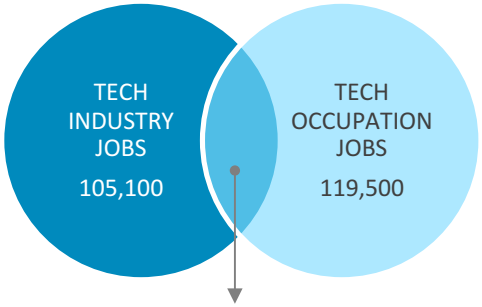
Phoenix



Full MSA name: Phoenix-Mesa-Scottsdale, AZ

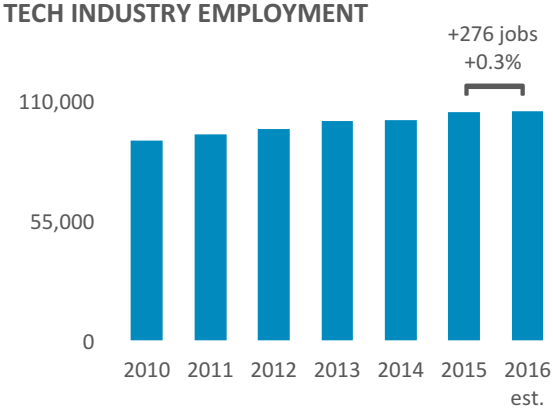
STATE OF TECHNOLOGY SUMMARY

105,120	TECH INDUSTRY EMPLOYMENT
5,871	TECH BUSINESS ESTABLISHMENTS
$98,870	AVERAGE WAGE IN TECH INDUSTRY
5.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
10,604	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

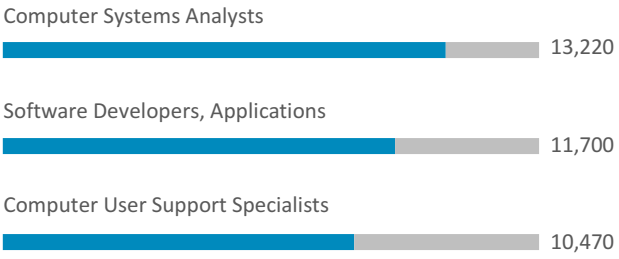


50% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

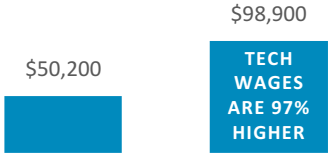
	2016	YoY % Change
IT Services + Custom Software Services	25,990	3.9%
Semiconductor Mfg.	18,450	-2.1%
Telecommunications Services	12,730	-1.8%
Engineering Services	11,430	-1.4%
Internet Services	10,010	0.1%

ECONOMIC IMPACT

9.3%

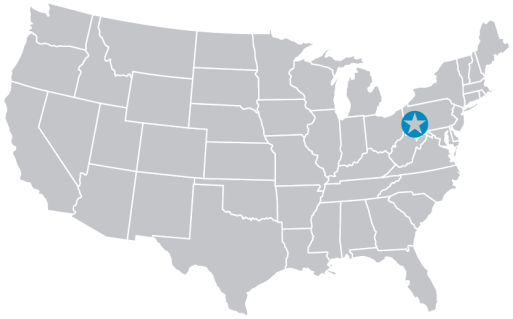
Estimated direct contribution of the tech sector to the Phoenix economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

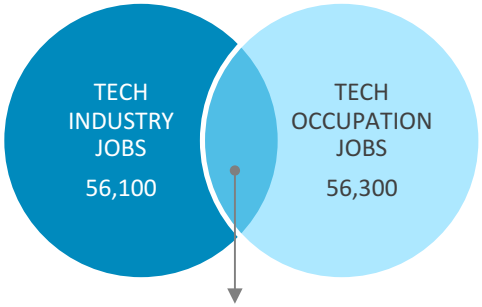
Pittsburgh



Full MSA name: Pittsburgh, PA

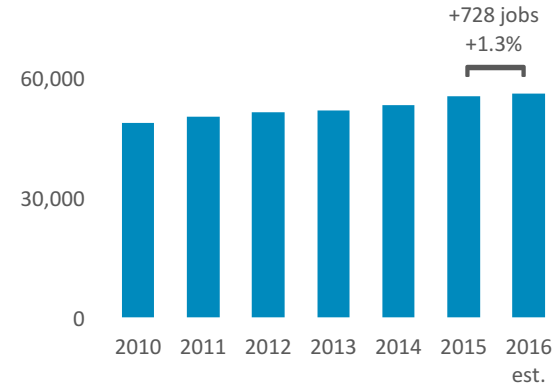
STATE OF TECHNOLOGY SUMMARY

56,126	TECH INDUSTRY EMPLOYMENT
2,334	TECH BUSINESS ESTABLISHMENTS
$88,302	AVERAGE WAGE IN TECH INDUSTRY
5.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
5,318	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

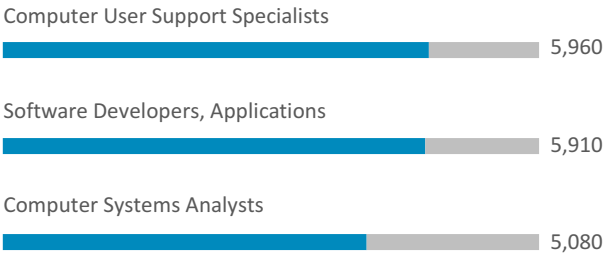


41% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
IT Services + Custom Software Services	13,760	3.5%
Engineering Services	12,930	-1.1%
R&D and Testing Labs	9,850	2.4%
Telecommunications Services	5,580	-3.0%
Measuring and Control Instruments Mfg.	4,950	1.6%

ECONOMIC IMPACT

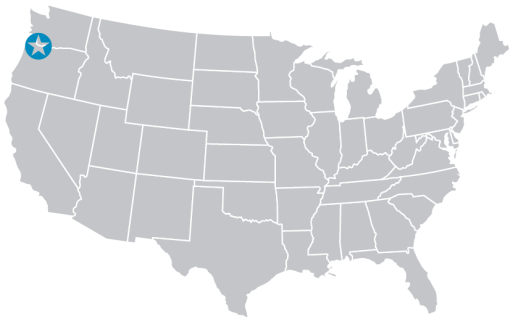
6.8%

Estimated direct contribution of the tech sector to the Pittsburgh economy

TECH INDUSTRY WAGES

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

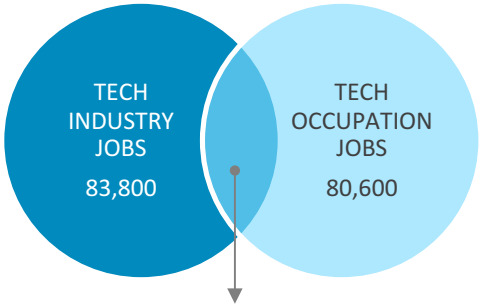
Portland



Full MSA name: Portland-Vancouver-Hillsboro, OR-WA

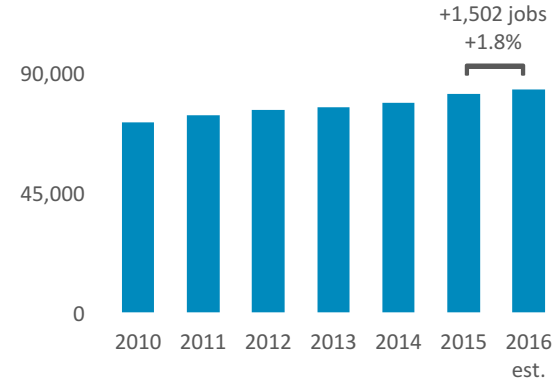
STATE OF TECHNOLOGY SUMMARY

83,777	TECH INDUSTRY EMPLOYMENT
4,850	TECH BUSINESS ESTABLISHMENTS
$110,661	AVERAGE WAGE IN TECH INDUSTRY
7.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
9,549	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

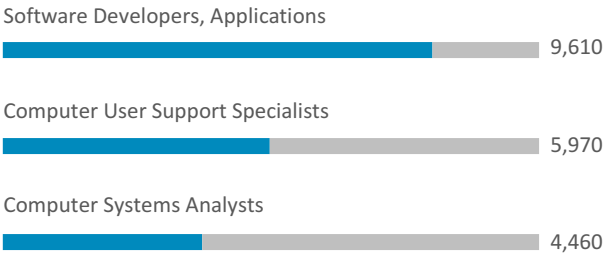


50% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

	2016	YoY % Change
Semiconductor Mfg.	29,120	2.8%
IT Services + Custom Software Services	13,650	4.6%
Software [packaged]	7,640	0.6%
Engineering Services	7,360	1.1%
Telecommunications Services	5,450	-0.7%

ECONOMIC IMPACT

7.3%

Estimated direct contribution of the tech sector to the Portland economy

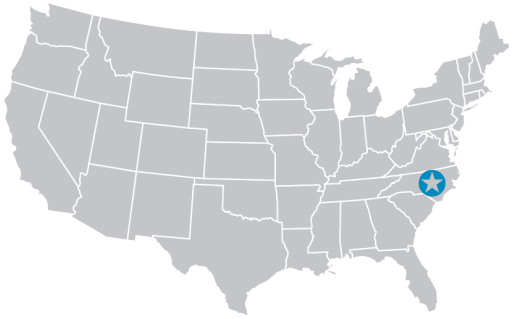
TECH INDUSTRY WAGES

Average MSA Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

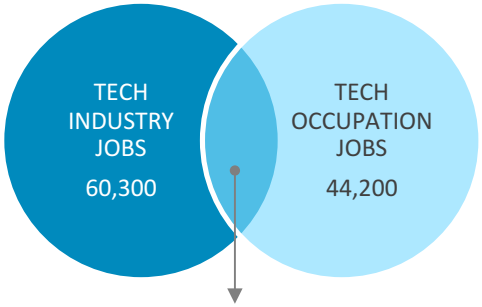
Raleigh



Full MSA name: Raleigh, NC

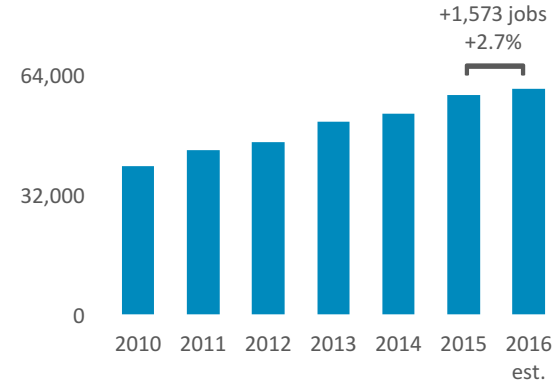
STATE OF TECHNOLOGY SUMMARY

60,269	TECH INDUSTRY EMPLOYMENT
3,687	TECH BUSINESS ESTABLISHMENTS
$103,189	AVERAGE WAGE IN TECH INDUSTRY
10.4%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
5,385	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

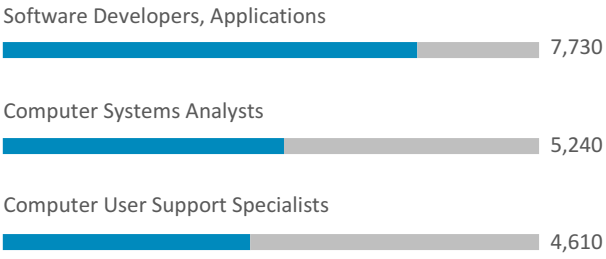


46% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

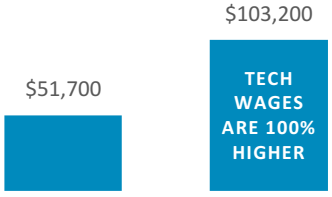
	2016	YoY % Change
IT Services + Custom Software Services	15,670	0.7%
Software [packaged]	8,450	5.0%
Measuring and Control Instruments Mfg.	7,140	5.0%
Engineering Services	7,010	6.5%
Telecommunications Services	6,740	1.7%

ECONOMIC IMPACT

15.5%

Estimated direct contribution of the tech sector to the Raleigh economy

TECH INDUSTRY WAGES



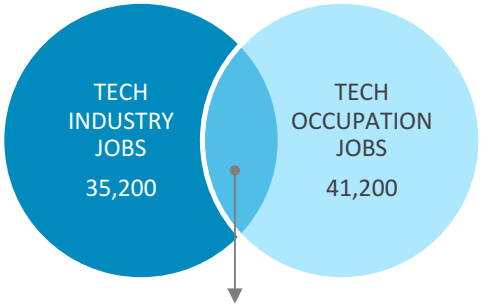
Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

San Antonio

Full MSA name: San Antonio-New Braunfels, TX

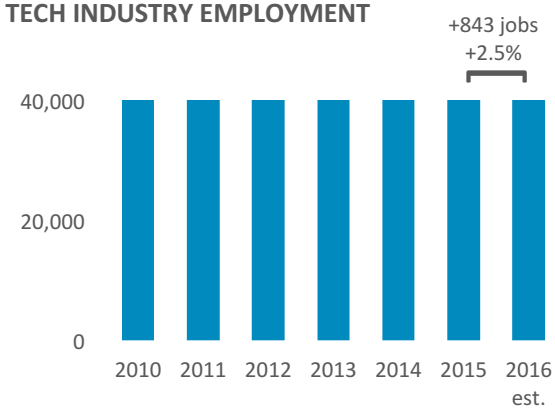
STATE OF TECHNOLOGY SUMMARY

35,172	TECH INDUSTRY EMPLOYMENT
1,979	TECH BUSINESS ESTABLISHMENTS
$81,305	AVERAGE WAGE IN TECH INDUSTRY
3.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
3,350	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

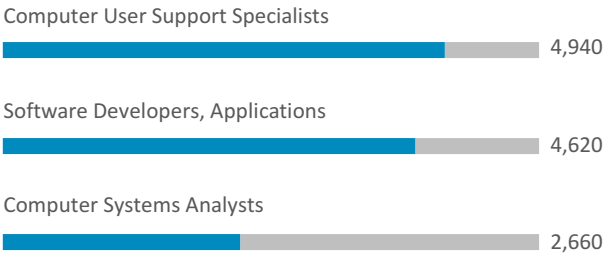


41% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

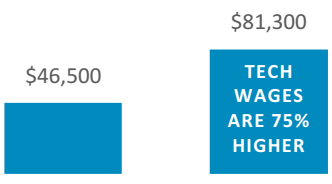
	2016	YoY % Change
Internet Services	7,320	-0.9%
IT Services + Custom Software Services	6,820	-0.3%
Telecommunications Services	6,140	18.1%
R&D and Testing Labs	5,510	0.0%
Engineering Services	5,290	-0.6%

ECONOMIC IMPACT

5.5%

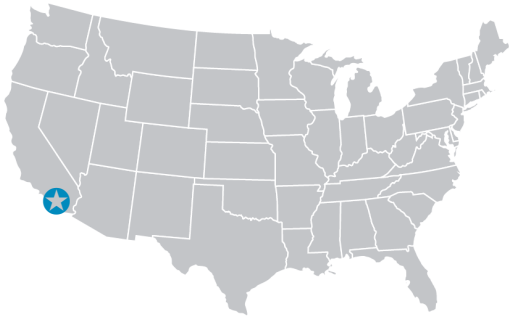
Estimated direct contribution of the tech sector to the San Antonio economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

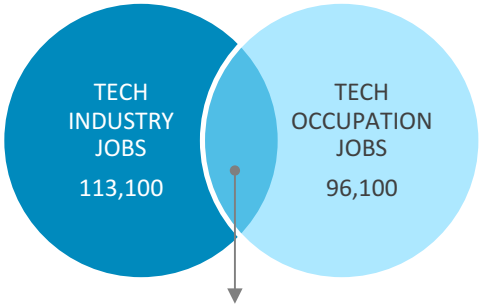
San Diego



Full MSA name: San Diego-Carlsbad, CA

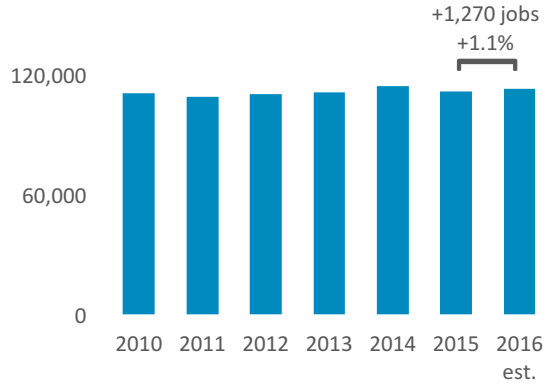
STATE OF TECHNOLOGY SUMMARY

113,058	TECH INDUSTRY EMPLOYMENT
5,071	TECH BUSINESS ESTABLISHMENTS
$124,094	AVERAGE WAGE IN TECH INDUSTRY
8.1%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
9,520	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

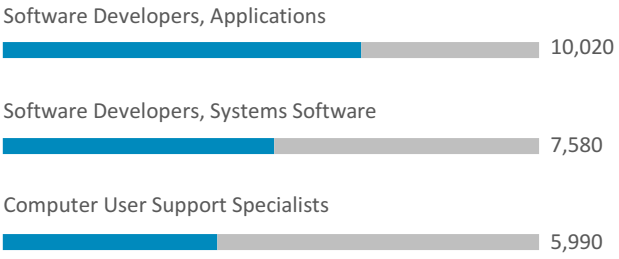


43% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

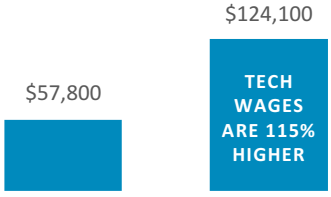
	2016	YoY % Change
R&D and Testing Labs	35,080	0.1%
IT Services + Custom Software Services	19,380	1.9%
Engineering Services	14,390	1.8%
Measuring and Control Instruments Mfg.	12,090	4.8%
Telecommunications Services	8,010	-0.4%

ECONOMIC IMPACT

11.1%

Estimated direct contribution of the tech sector to the San Diego economy

TECH INDUSTRY WAGES

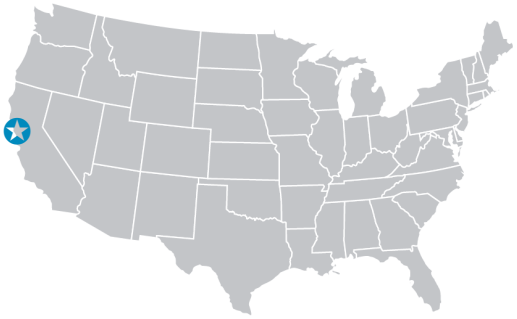


Average MSA Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

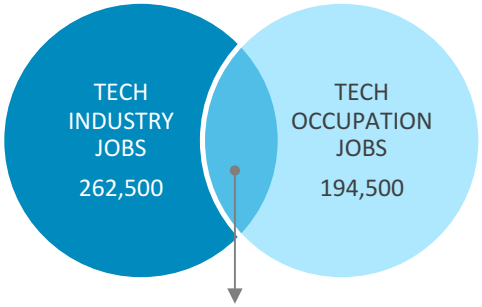
San Francisco



Full MSA name: San Francisco-Oakland-Hayward, CA

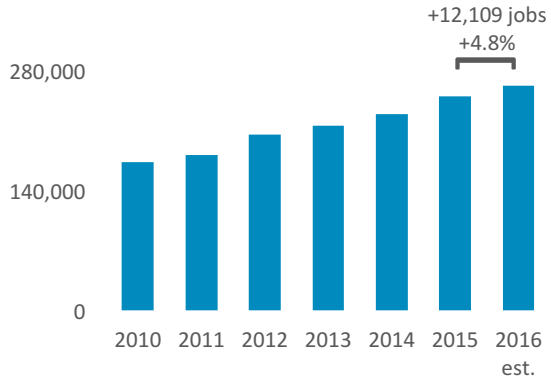
STATE OF TECHNOLOGY SUMMARY

262,501	TECH INDUSTRY EMPLOYMENT
9,644	TECH BUSINESS ESTABLISHMENTS
$168,920	AVERAGE WAGE IN TECH INDUSTRY
11.5%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
23,466	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

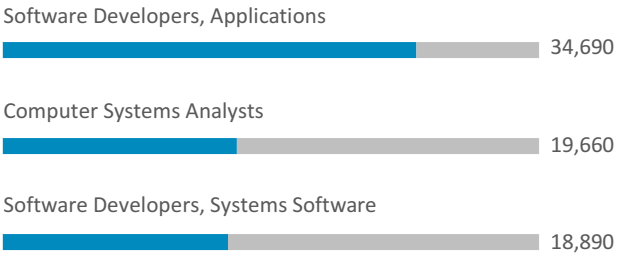


47% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

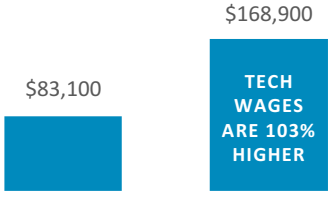
	2016	YoY % Change
IT Services + Custom Software Services	96,020	1.4%
R&D and Testing Labs	39,500	5.6%
Internet Services	37,640	23.2%
Software [packaged]	21,150	2.8%
Engineering Services	17,570	0.9%

ECONOMIC IMPACT

17.1%

Estimated direct contribution of the tech sector to the San Francisco economy

TECH INDUSTRY WAGES

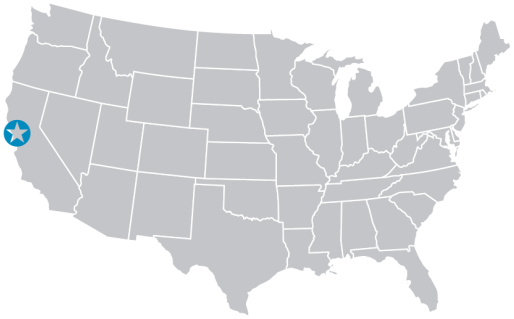


Average MSA Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

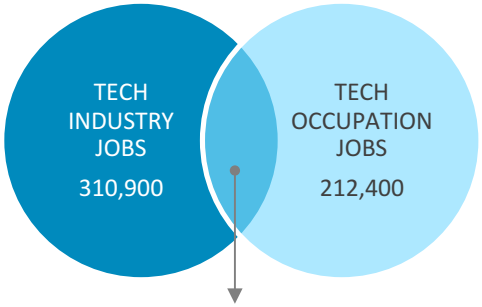
San Jose



Full MSA name: San Jose-Sunnyvale-Santa Clara, CA

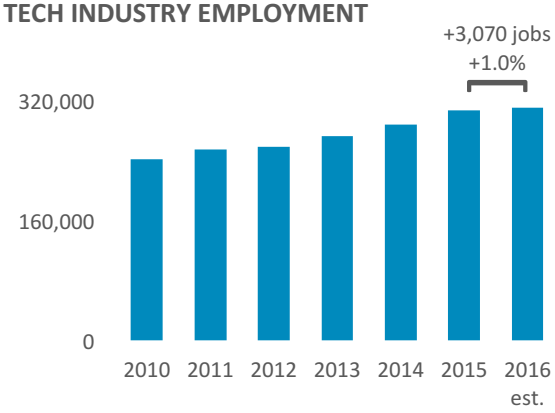
STATE OF TECHNOLOGY SUMMARY

310,937	TECH INDUSTRY EMPLOYMENT
6,338	TECH BUSINESS ESTABLISHMENTS
$217,255	AVERAGE WAGE IN TECH INDUSTRY
29.6%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
18,143	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

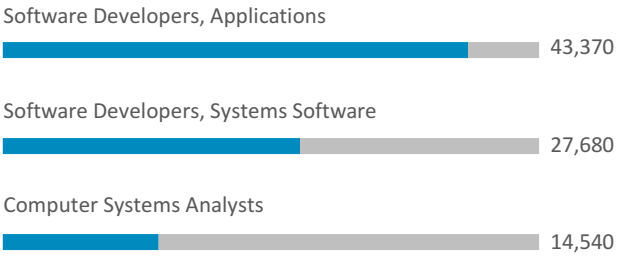


58% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

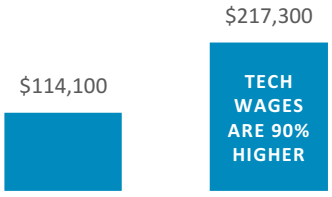
	2016	YoY % Change
IT Services + Custom Software Services	70,800	3.4%
Computer and Peripheral Equipment Mfg.	48,180	5.3%
Internet Services	46,930	-1.7%
Semiconductor Mfg.	34,580	-0.7%
R&D and Testing Labs	25,700	1.0%

ECONOMIC IMPACT

50.7%

Estimated direct contribution of the tech sector to the San Jose economy

TECH INDUSTRY WAGES

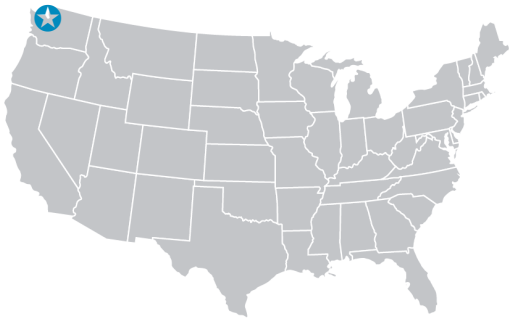


Average MSA Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

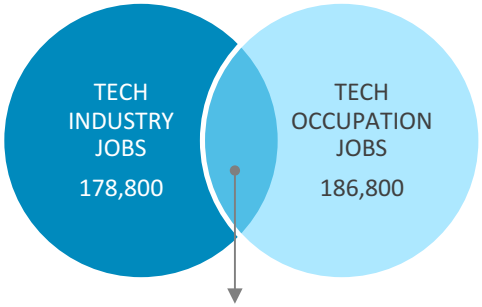
Seattle



Full MSA name: Seattle-Tacoma-Bellevue, WA

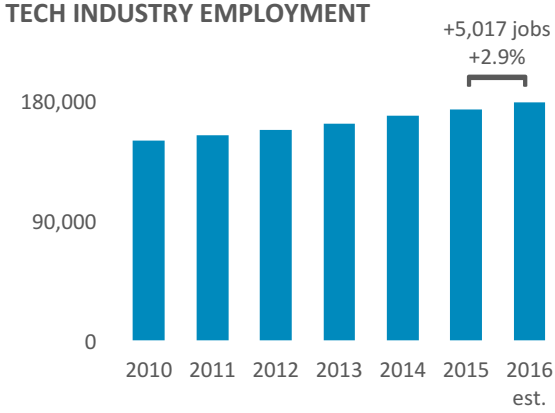
STATE OF TECHNOLOGY SUMMARY

178,766	TECH INDUSTRY EMPLOYMENT
9,199	TECH BUSINESS ESTABLISHMENTS
$145,457	AVERAGE WAGE IN TECH INDUSTRY
9.6%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
13,845	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

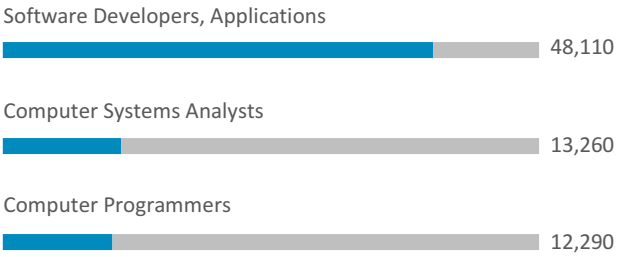


56% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

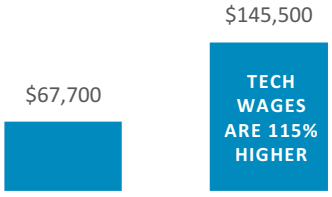
	2016	YoY % Change
Software [packaged]	55,100	2.9%
IT Services + Custom Software Services	41,340	3.1%
Internet Services	18,590	11.5%
Telecommunications Services	17,150	0.5%
Engineering Services	14,630	-0.9%

ECONOMIC IMPACT

16.8%

Estimated direct contribution of the tech sector to the Seattle economy

TECH INDUSTRY WAGES

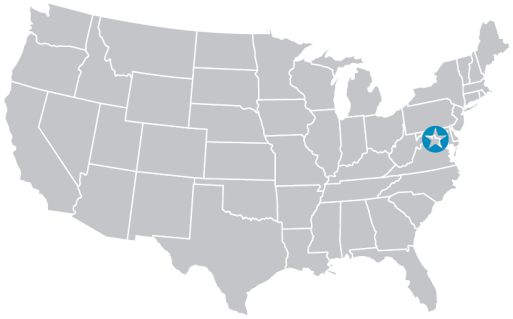


Average MSA Wage

Average Tech Industry Wage

Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

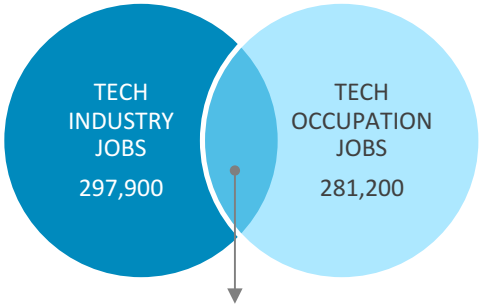
Washington D.C.



Full MSA name: Washington-Arlington-Alexandria, DC-VA-MD-WV

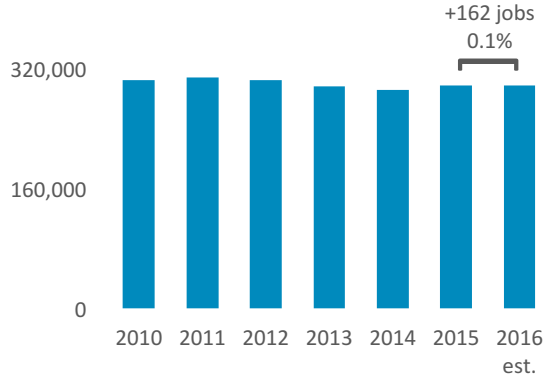
STATE OF TECHNOLOGY SUMMARY

297,932	TECH INDUSTRY EMPLOYMENT
20,659	TECH BUSINESS ESTABLISHMENTS
$120,283	AVERAGE WAGE IN TECH INDUSTRY
9.7%	TECH INDUSTRY AS A % OF OVERALL WORKFORCE
40,279	Q4 2016 POSTINGS FOR TECH OCC. JOB OPENINGS

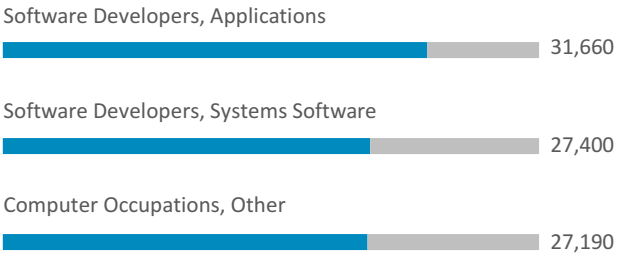


54% of Tech Industry Jobs Are in Tech Occupations

TECH INDUSTRY EMPLOYMENT



LEADING TECH OCCUPATIONS



LEADING TECH INDUSTRY SECTORS

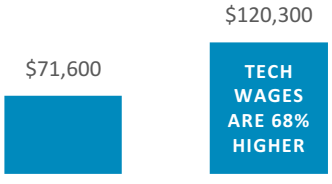
	2016	YoY % Change
IT Services + Custom Software Services	161,340	0.6%
Engineering Services	38,600	-0.3%
R&D and Testing Labs	31,180	1.4%
Telecommunications Services	22,840	-2.9%
Internet Services	14,880	-2.3%

ECONOMIC IMPACT

12.5%

Estimated direct contribution of the tech sector to the Washington D.C. economy

TECH INDUSTRY WAGES



Primary data sources: EMSI | U.S. Bureau of Labor Statistics | U.S. Bureau of Economic Analysis | Burning Glass Technologies Labor Insights. All data are estimates covering the 2016 time period, except where specified as 2015 or earlier | See Appendix for full methodology

APPENDIX A – NATIONAL DATA TABLES

		2010	2011	2012	2013	2014	2015	2016 est.	Numeric Change '15-'16	Percent Change '15-'16
TECHNOLOGY MANUFACTURING										
Computer and Peripheral Equipment Manufacturing										
334111	Electronic Computer	88,614	89,150	89,319	90,528	95,750	100,084	107,500	7,417	7.4%
334112	Computer Storage Devices	21,544	21,549	22,028	22,391	21,906	20,742	18,919	-1,824	-8.8%
334118	Computer Peripheral Equipment	48,434	46,938	46,356	43,409	40,903	40,521	42,067	1,546	3.8%
	SUBTOTAL	**158,592**	**157,637**	**157,703**	**156,327**	**158,558**	**161,347**	**168,486**	**7,139**	**4.4%**
Communications Equipment Consumer Electronics Manufacturing										
334210	Telephone Apparatus	26,443	28,150	25,942	24,267	21,974	18,841	17,007	-1,833	-9.7%
334220	Radio & TV Broadcasting & Wireless Comm. Equip.	66,522	64,430	61,872	58,359	52,776	50,784	48,000	-2,784	-5.5%
334290	Other Communications Equipment	22,937	22,669	21,858	19,272	19,063	18,672	17,659	-1,012	-5.4%
334310	Consumer Electronics Manufacturing	20,042	19,793	20,316	19,115	19,767	19,965	19,697	-269	-1.3%
	SUBTOTAL	**135,944**	**135,043**	**129,987**	**121,014**	**113,580**	**108,261**	**102,363**	**-5,898**	**-5.4%**
Electronic Components Manufacturing										
334412	Bare Printed Circuit Boards	37,588	36,715	36,141	32,663	31,276	29,907	28,594	-1,314	-4.4%
334416	Capacitors, Resistor, Coil, Transformer, and Other	18,798	19,252	18,592	18,141	17,929	17,688	17,212	-476	-2.7%
334417	Electronic Connectors	18,041	19,035	18,742	18,820	19,600	19,662	20,109	448	2.3%
334418	Printed Circuit Assembly	49,118	52,238	52,745	53,467	52,824	54,809	55,790	980	1.8%
334419	Other Electronic Components	64,795	67,915	66,824	63,700	65,827	64,564	62,569	-1,995	-3.1%
	SUBTOTAL	**188,339**	**195,154**	**193,044**	**186,790**	**187,456**	**186,631**	**184,274**	**-2,357**	**-1.3%**
Semiconductor Manufacturing										
334413	Semiconductor and Related Devices	181,668	188,358	189,656	185,937	180,747	180,653	181,844	1,192	0.7%
333242	Semiconductor Machinery	14,610	15,743	15,969	15,594	16,147	16,990	18,327	1,337	7.9%
	SUBTOTAL	**196,278**	**204,101**	**205,624**	**201,531**	**196,894**	**197,643**	**200,171**	**2,529**	**1.3%**
Measuring and Control Instruments Manufacturing										
334510	Electromedical and Electrotherapeutic Apparatus	58,990	59,773	57,676	55,832	55,119	59,475	62,694	3,219	5.4%
334511	Search, Detection, Navigation, and Guidance	147,519	138,691	133,614	127,527	123,446	124,578	120,898	-3,681	-3.0%
334512	Automotive Environmental Controls	18,141	17,992	17,882	18,693	18,562	18,921	18,280	-641	-3.4%
334513	Industrial Process Control Instruments	55,976	58,199	59,948	60,682	62,837	63,565	62,515	-1,050	-1.7%
334514	Totalizing Fluid Meter and Counting Devices	10,809	10,994	10,583	10,161	10,391	10,510	10,216	-293	-2.8%
334515	Electricity Measuring and Testing Instruments	40,296	41,654	40,930	38,736	37,841	37,408	36,957	-452	-1.2%
334516	Analytical Laboratory Instruments	30,484	31,465	32,265	33,690	33,681	34,260	34,953	693	2.0%
334517	Irradiation Apparatus	12,181	12,983	12,672	13,207	12,893	12,729	13,007	278	2.2%
334519	Other Measuring and Controlling Instruments	32,967	33,241	34,497	33,931	35,244	37,103	37,387	284	0.8%
	SUBTOTAL	**407,364**	**404,991**	**400,066**	**392,459**	**390,014**	**398,548**	**396,906**	**-1,642**	**-0.4%**
Reproducing Magnetic and Optical Media Manufacturing										
334613	Blank Magnetic & Optical Recording Media Mfg.	4,322	3,853	3,838	3,850	4,086	4,186	4,272	87	2.1%
334614	Software and Other Prerecorded Content Reproducing	20,683	18,551	16,498	15,182	13,008	11,833	11,113	-721	-6.1%
	SUBTOTAL	**25,005**	**22,404**	**20,335**	**19,032**	**17,095**	**16,019**	**15,385**	**-634**	**-4.0%**
Space and Defense Systems Manufacturing										
336414	Guided Missile and Space Vehicles	53,911	55,981	54,583	55,894	55,105	55,825	55,963	138	0.2%
336415	Guided Missile & Space Vehicles Propulsion Units & Parts	12,673	11,234	10,867	10,259	9,970	9,729	9,531	-198	-2.0%
336419	Other Guided Missile & Space Vehicle Parts & Aux. Equip.	7,964	7,263	6,751	6,890	6,274	5,309	4,814	-495	-9.3%
	SUBTOTAL	**74,548**	**74,477**	**72,202**	**73,043**	**71,349**	**70,864**	**70,309**	**-555**	**-0.8%**
	TOTAL TECH MANUFACTURING	**1,186,070**	**1,193,808**	**1,178,962**	**1,150,196**	**1,134,946**	**1,139,312**	**1,137,894**	**-1,418**	**-0.1%**

Sources: EMSI | U.S. Bureau of Labor Statistics

U.S. TECH INDUSTRY EMPLOYMENT (cont.)

		2010	2011	2012	2013	2014	2015	2016 est.	Numeric Change '15-'16	Percent Change '15-'16
TELECOMMUNICATIONS AND INTERNET SERVICES										
Telecommunications										
517110	Wired Telecommunication Carriers	598,456	587,579	580,607	602,414	604,275	587,216	585,245	-1,971	-0.3%
517210	Wireless Telecomm. Carriers (except Satellite)	172,040	168,557	155,697	153,607	155,471	131,744	119,604	-12,140	-9.2%
517410	Satellite Telecommunications	11,668	10,910	10,266	9,723	9,078	8,633	7,708	-925	-10.7%
517911	Telecommunication Resellers	92,508	88,781	82,603	57,626	54,709	52,576	48,696	-3,880	-7.4%
517919	All Other Telecommunications	28,019	24,312	25,843	26,412	27,443	27,585	27,632	47	0.2%
	SUBTOTAL	**902,691**	**880,139**	**855,015**	**849,782**	**850,976**	**807,753**	**788,884**	**-18,869**	**-2.3%**
Internet Hosting, Web Search, and Related Services										
518210	Data Processing, Hosting, and Related Services	242,412	245,196	253,815	265,564	276,843	296,697	307,420	10,723	3.6%
519130	Internet Publishing and Web Search Portals	90,986	104,923	123,417	140,958	161,289	186,112	210,864	24,752	13.3%
	SUBTOTAL	**333,398**	**350,119**	**377,232**	**406,522**	**438,132**	**482,809**	**518,284**	**35,475**	**7.3%**
SOFTWARE										
511210	Software Publishers [packaged software]	258,877	270,239	284,193	296,823	310,902	332,271	357,412	25,141	7.6%
	SUBTOTAL	**258,877**	**270,239**	**284,193**	**296,823**	**310,902**	**332,271**	**357,412**	**25,141**	**7.6%**
IT SERVICES										
Computer Systems Design and Related Services										
541511	Custom Computer Programming Services	626,293	666,575	699,874	740,364	772,208	827,186	877,876	50,690	6.1%
541512	Computer Systems Design Services	660,756	712,073	762,711	800,552	856,349	905,091	960,050	54,959	6.1%
541513	Computer Facilities Management Services	51,972	52,067	52,071	53,729	54,993	65,770	67,912	2,142	3.3%
541519	Other Computer Related Services	107,359	109,918	107,733	106,141	104,325	109,962	111,801	1,839	1.7%
	SUBTOTAL	**1,446,380**	**1,540,633**	**1,622,389**	**1,700,785**	**1,787,874**	**1,908,010**	**2,017,640**	**109,630**	**5.7%**
Computer and Electronic Repair and Maintenance										
811211	Consumer Electronics Repair and Maintenance	10,990	10,033	9,598	11,093	11,355	11,820	12,420	600	5.1%
811212	Computer and Office Machine Repair and Maintenance	38,876	40,388	41,595	41,848	43,275	43,005	42,505	-500	-1.2%
811213	Communication Equipment Repair and Maintenance	17,045	16,534	15,289	14,948	14,717	14,127	14,225	97	0.7%
811219	Other Electronic and Precision Equipment	29,987	31,464	32,178	32,056	32,663	33,071	33,651	580	1.8%
	SUBTOTAL	**96,898**	**98,419**	**98,661**	**99,945**	**102,009**	**102,023**	**102,801**	**778**	**0.8%**
Other										
611420	Computer Training	15,760	15,979	15,620	15,125	14,577	14,843	14,984	141	1.0%
423430	Computer & Peripheral Equip. & Software Wholesalers	214,774	219,913	226,365	226,185	225,226	222,013	220,392	-1,620	-0.7%
	SUBTOTAL	**230,534**	**235,892**	**241,985**	**241,311**	**239,804**	**236,855**	**235,376**	**-1,479**	**-0.6%**
ENGINEERING SERVICES, R&D, AND TESTING SERVICES										
541330	Engineering Services	867,547	873,746	891,295	904,939	914,596	938,389	946,485	8,096	0.9%
	SUBTOTAL	**867,547**	**873,746**	**891,295**	**904,939**	**914,596**	**938,389**	**946,485**	**8,096**	**0.9%**
R&D and Testing Labs										
541380	Testing Laboratories	144,193	152,220	158,405	160,826	168,224	163,655	166,094	2,440	1.5%
541711	R&D in Biotechnology	136,640	139,508	140,184	142,475	146,240	158,255	171,006	12,751	8.1%
541712	R&D in the Physical, Eng., and Life Sciences	425,890	433,044	435,059	431,114	430,058	441,805	451,485	9,681	2.2%
	SUBTOTAL	**706,723**	**724,772**	**733,648**	**734,416**	**744,522**	**763,714**	**788,586**	**24,872**	**3.3%**
	TOTAL TELECOMMUNICATIONS & INTERNET SERVICES	**1,236,089**	**1,230,258**	**1,232,247**	**1,256,304**	**1,289,109**	**1,290,563**	**1,307,169**	**16,606**	**1.3%**
	TOTAL SOFTWARE	**258,877**	**270,239**	**284,193**	**296,823**	**310,902**	**332,271**	**357,412**	**25,141**	**7.6%**
	TOTAL IT SERVICES	**1,773,812**	**1,874,943**	**1,963,035**	**2,042,041**	**2,129,686**	**2,246,888**	**2,355,817**	**108,929**	**4.8%**
	TOTAL ENGINEERING SERVICES, R&D, AND TESTING SERVICES	**1,574,270**	**1,598,519**	**1,624,944**	**1,639,354**	**1,659,117**	**1,702,103**	**1,735,071**	**32,968**	**1.9%**
	TOTAL TECH INDUSTRY EMPLOYMENT	**6,029,117**	**6,167,766**	**6,283,380**	**6,384,717**	**6,523,760**	**6,711,136**	**6,893,362**	**182,226**	**2.7%**

Sources: EMSI | U.S. Bureau of Labor Statistics

		2011	2012	2013	2014	2015	2016	Numeric Change '15-'16	Percent Change '15-'16
TECHNOLOGY MANUFACTURING									
Computer and Peripheral Equipment Manufacturing									
334111	Electronic Computer	662	685	674	694	712	709	-3	-0.4%
334112	Computer Storage Devices	214	224	235	252	259	254	-5	-1.9%
334118	Computer Peripheral Equipment	778	734	734	762	768	787	19	2.5%
	SUBTOTAL	**1,654**	**1,643**	**1,643**	**1,708**	**1,739**	**1,750**	**11**	**0.6%**
Communications Equipment Consumer Electronics Manufacturing									
334210	Telephone Apparatus	442	478	479	444	440	443	3	0.6%
334220	Radio & TV Broadcasting & Wireless Comm. Equip.	1,139	1,187	1,217	1,222	1,228	1,242	14	1.2%
334290	Other Communications Equipment	640	639	632	626	658	655	-3	-0.5%
334310	Consumer Electronics Manufacturing	667	664	669	693	732	741	9	1.2%
	SUBTOTAL	**2,888**	**2,968**	**2,997**	**2,985**	**3,058**	**3,081**	**23**	**0.7%**
Electronic Components Manufacturing									
334412	Bare Printed Circuit Boards	777	740	711	697	640	629	-12	-1.8%
334416	Capacitors, Resistor, Coil, Transformer, and Other	476	465	452	459	464	456	-8	-1.7%
334417	Electronic Connectors	298	293	302	311	313	317	4	1.2%
334418	Printed Circuit Assembly	1,133	1,136	1,133	1,113	1,124	1,125	1	0.0%
334419	Other Electronic Components	1,476	1,487	1,486	1,520	1,510	1,505	-5	-0.3%
	SUBTOTAL	**4,160**	**4,121**	**4,084**	**4,100**	**4,051**	**4,031**	**-21**	**-0.5%**
Semiconductor Manufacturing									
334413	Semiconductor and Related Devices	1,619	1,649	1,613	1,636	1,643	1,665	22	1.3%
333242	Semiconductor Machinery	243	242	242	245	252	256	4	1.7%
	SUBTOTAL	**1,862**	**1,891**	**1,855**	**1,881**	**1,895**	**1,921**	**26**	**1.4%**
Measuring and Control Instruments Manufacturing									
334510	Electromedical and Electrotherapeutic Apparatus	1,013	1,013	1,071	1,143	1,209	1,224	15	1.2%
334511	Search, Detection, Navigation, and Guidance	941	944	953	956	1,000	988	-12	-1.2%
334512	Automotive Environmental Controls	448	466	463	468	475	473	-3	-0.5%
334513	Industrial Process Control Instruments	1,731	1,771	1,785	1,831	1,879	1,873	-7	-0.3%
334514	Totalizing Fluid Meter and Counting Devices	255	250	236	235	238	232	-6	-2.6%
334515	Electricity Measuring and Testing Instruments	1,029	1,028	1,039	1,067	1,080	1,082	2	0.2%
334516	Analytical Laboratory Instruments	736	743	777	786	820	830	10	1.2%
334517	Irradiation Apparatus	284	277	275	268	267	266	-1	-0.3%
334519	Other Measuring and Controlling Instruments	1,167	1,176	1,162	1,184	1,177	1,166	-11	-0.9%
	SUBTOTAL	**7,604**	**7,668**	**7,761**	**7,938**	**8,145**	**8,132**	**-13**	**-0.2%**
Reproducing Magnetic and Optical Media Manufacturing									
334613	Reproducing Magnetic and Optical Media Manufacturing	960	901	849	825	795	784	-12	-1.4%
	SUBTOTAL	**960**	**901**	**849**	**825**	**795**	**784**	**-12**	**-1.4%**
Space and Defense Systems Manufacturing									
336414	Guided Missile and Space Vehicles	136	142	142	152	159	160	1	0.3%
336415	Guided Missile & Space Vehicles Propulsion Units & Parts	62	61	61	57	56	56	-1	-0.9%
336419	Other Guided Missile & Space Vehicle Parts & Aux. Equip.	68	66	64	67	63	61	-2	-3.6%
	SUBTOTAL	**266**	**269**	**267**	**276**	**278**	**276**	**-2**	**-0.8%**
	TOTAL TECH MANUFACTURING BUSINESS ESTABLISHMENTS	**19,394**	**19,461**	**19,456**	**19,713**	**19,961**	**19,974**	**13**	**0.1%**

Sources: EMSI | U.S. Bureau of Labor Statistics

U.S. TECH BUSINESS ESTABLISHMENTS (cont.)

		2011	2012	2013	2014	2015	2016	Numeric Change '15-'16	Percent Change '15-'16
TELECOMMUNICATIONS AND INTERNET SERVICES									
Telecommunications									
517110	Wired Telecommunication Carriers	25,901	24,872	23,569	23,263	19,886	19,711	-175	-0.9%
517210	Wireless Telecomm. Carriers (except Satellite)	8,904	9,158	8,895	8,679	8,004	8,049	45	0.6%
517410	Satellite Telecommunications	909	858	816	793	762	736	-26	-3.4%
517911	Telecommunication Resellers	6,049	5,784	4,851	4,797	4,705	4,639	-67	-1.4%
517919	All Other Telecommunications	2,150	2,157	2,292	2,449	2,540	2,552	12	0.5%
	SUBTOTAL	**43,913**	**42,829**	**40,423**	**39,981**	**35,897**	**35,686**	**-211**	**-0.6%**
Internet Hosting, Web Search, and Related Services									
518210	Data Processing, Hosting, and Related Services	14,762	14,784	15,326	16,480	17,886	18,675	789	4.4%
519130	Internet Publishing and Web Search Portals	9,156	10,225	11,171	12,073	13,069	13,437	368	2.8%
	SUBTOTAL	**23,918**	**25,009**	**26,497**	**28,553**	**30,955**	**32,112**	**1,157**	**3.7%**
SOFTWARE									
511210	Software Publishers [packaged software]	11,161	11,969	13,104	15,000	17,498	18,877	1,379	7.9%
	SUBTOTAL	**11,161**	**11,969**	**13,104**	**15,000**	**17,498**	**18,877**	**1,379**	**7.9%**
IT SERVICES									
Computer Systems Design and Related Services									
541511	Custom Computer Programming Services	87,922	93,233	98,547	103,670	108,425	110,786	2,361	2.2%
541512	Computer Systems Design Services	95,269	100,857	106,212	111,081	116,156	118,723	2,567	2.2%
541513	Computer Facilities Management Services	2,823	2,968	3,127	3,389	3,699	3,764	65	1.8%
541519	Other Computer Related Services	14,737	14,786	14,893	15,468	16,081	16,304	223	1.4%
	SUBTOTAL	**200,751**	**211,844**	**222,779**	**233,608**	**244,361**	**249,577**	**5,216**	**2.1%**
Computer and Electronic Repair and Maintenance									
811211	Consumer Electronics Repair and Maintenance	2,105	2,041	2,035	2,038	2,108	2,118	10	0.5%
811212	Computer and Office Machine Repair and Maintenance	7,313	7,316	7,262	7,306	7,197	7,110	-87	-1.2%
811213	Communication Equipment Repair and Maintenance	1,639	1,666	1,750	1,785	1,837	1,852	15	0.8%
811219	Other Electronic and Precision Equipment	5,356	5,364	5,515	5,607	5,611	5,573	-39	-0.7%
	SUBTOTAL	**16,413**	**16,387**	**16,562**	**16,736**	**16,753**	**16,653**	**-101**	**-0.6%**
Other									
611420	Computer Training	2,621	2,646	2,614	2,667	2,608	2,576	-32	-1.2%
423430	Computer & Peripheral Equip. & Software Wholesalers	11,946	12,280	12,068	11,829	11,725	11,721	-4	0.0%
	SUBTOTAL	**14,567**	**14,926**	**14,682**	**14,496**	**14,333**	**14,297**	**-36**	**-0.3%**
ENGINEERING SERVICES, R&D, AND TESTING SERVICES									
541330	Engineering Services	68,262	68,886	69,722	70,715	71,325	71,973	648	0.9%
	SUBTOTAL	**68,262**	**68,886**	**69,722**	**70,715**	**71,325**	**71,973**	**648**	**0.9%**
R&D and Testing Labs									
541380	Testing Laboratories	8,997	9,073	9,133	9,299	9,428	9,495	67	0.7%
541711	R&D in Biotechnology	6,270	6,579	6,799	7,137	7,657	7,972	315	4.1%
541712	R&D in the Physical, Eng., and Life Sciences	13,923	14,348	14,703	15,181	15,705	15,934	229	1.5%
	SUBTOTAL	**29,190**	**30,000**	**30,635**	**31,617**	**32,790**	**33,400**	**610**	**1.9%**
	TOTAL TELECOMMUNICATIONS & INTERNET SERVICES	**67,831**	**67,838**	**66,920**	**68,534**	**66,852**	**67,798**	**946**	**1.4%**
	TOTAL SOFTWARE PUBLISHING	**11,161**	**11,969**	**13,104**	**15,000**	**17,498**	**18,877**	**1,379**	**7.9%**
	TOTAL IT SERVICES	**231,731**	**243,157**	**254,023**	**264,840**	**275,447**	**280,527**	**5,080**	**1.8%**
	TOTAL ENGINEERING SERVICES, R&D, AND TESTING SERVICES	**97,452**	**98,886**	**100,357**	**102,332**	**104,115**	**105,373**	**1,258**	**1.2%**
	TOTAL TECH BUSINESS ESTABLISHMNETS	**427,569**	**441,311**	**453,860**	**470,419**	**483,873**	**492,548**	**8,675**	**1.8%**

Sources: EMSI | U.S. Bureau of Labor Statistics

U.S. TECH INDUSTRY WAGES

(adjusted for inflation to 2016 dollars)

		2011	2012	2013	2014	2015	2016	Numeric Change '15-'16	Percent Change '15-'16
TECHNOLOGY MANUFACTURING									
Computer and Peripheral Equipment Manufacturing									
334111	Electronic Computer	$178,327	$191,182	$180,507	$187,261	$194,319	$190,252	-$4,067	-2.1%
334112	Computer Storage Devices	$122,417	$138,902	$131,470	$135,081	$139,230	$135,870	-$3,360	-2.4%
334118	Computer Peripheral Equipment	$111,186	$109,326	$108,403	$110,057	$112,706	$113,374	$668	0.6%
Communications Equipment Consumer Electronics Manufacturing									
334210	Telephone Apparatus	$130,412	$119,091	$127,858	$127,044	$116,652	$116,775	$124	0.1%
334220	Radio & TV Broadcasting & Wireless Comm. Equip.	$98,595	$101,455	$102,101	$107,748	$110,318	$107,443	-$2,875	-2.6%
334290	Other Communications Equipment	$88,159	$88,398	$79,236	$79,199	$80,175	$79,824	-$351	-0.4%
334310	Consumer Electronics Manufacturing	$82,013	$82,647	$85,109	$91,062	$89,326	$87,586	-$1,740	-1.9%
Electronic Components Manufacturing									
334412	Bare Printed Circuit Boards	$61,370	$59,635	$60,726	$60,628	$66,213	$63,941	-$2,272	-3.4%
334416	Capacitors, Resistor, Coil, Transformer, and Other	$53,081	$51,613	$51,382	$55,162	$57,432	$56,194	-$1,238	-2.2%
334417	Electronic Connectors	$59,524	$64,386	$69,691	$65,355	$66,409	$66,190	-$219	-0.3%
334418	Printed Circuit Assembly	$54,530	$52,654	$53,519	$54,000	$55,746	$55,382	-$365	-0.7%
334419	Other Electronic Components	$68,713	$69,293	$67,826	$70,793	$71,682	$70,330	-$1,352	-1.9%
Semiconductor Manufacturing									
334413	Semiconductor and Related Devices	$129,516	$125,414	$128,503	$136,971	$139,828	$141,684	$1,855	1.3%
333242	Semiconductor Machinery	$147,415	$136,579	$141,864	$151,243	$152,582	$152,432	-$150	-0.1%
Measuring and Control Instruments Manufacturing									
334510	Electromedical and Electrotherapeutic Apparatus	$94,497	$96,114	$95,360	$97,581	$104,986	$105,392	$405	0.4%
334511	Search, Detection, Navigation, and Guidance	$105,363	$107,900	$108,834	$109,472	$111,923	$109,774	-$2,149	-1.9%
334512	Automotive Environmental Controls	$72,136	$73,771	$73,285	$73,596	$73,534	$75,072	$1,538	2.1%
334513	Industrial Process Control Instruments	$79,817	$79,844	$78,712	$80,435	$80,247	$79,330	-$916	-1.1%
334514	Totalizing Fluid Meter and Counting Devices	$68,369	$67,411	$68,754	$67,893	$68,956	$67,447	-$1,509	-2.2%
334515	Electricity Measuring and Testing Instruments	$106,541	$101,979	$99,603	$103,704	$104,728	$104,046	-$682	-0.7%
334516	Analytical Laboratory Instruments	$103,763	$95,100	$95,333	$98,000	$95,763	$95,477	-$287	-0.3%
334517	Irradiation Apparatus	$101,904	$99,408	$102,206	$104,980	$106,460	$105,870	-$590	-0.6%
334519	Other Measuring and Controlling Instruments	$74,786	$73,253	$72,310	$73,865	$81,330	$81,025	-$305	-0.4%
Reproducing Magnetic and Optical Media Manufacturing									
334613	Reproducing Magnetic and Optical Media Manufacturing	$93,945	$105,862	$98,143	$99,950	$106,886	$103,663	-$3,223	-3.0%
Space and Defense Systems Manufacturing									
336414	Guided Missile and Space Vehicles	$119,752	$119,985	$122,679	$126,344	$130,260	$130,653	$393	0.3%
336415	Guided Missile & Space Vehicles Propulsion Units & Parts	$92,353	$90,409	$93,280	$93,765	$96,669	$93,088	-$3,581	-3.7%
336419	Other Guided Missile & Space Vehicle Parts & Aux. Equip.	$99,494	$97,684	$97,536	$98,742	$99,132	$93,373	-$5,759	-5.8%
	TECH MANUFACTURING AVERAGE WAGE	**$104,771**	**$105,202**	**$105,196**	**$108,800**	**$111,688**	**$111,589**	**-$99**	**-0.1%**

Sources: EMSI | U.S. Bureau of Labor Statistics

U.S. TECH INDUSTRY WAGES (cont.)

(adjusted for inflation to 2016 dollars)

		2011	2012	2013	2014	2015	2016	Numeric Change '15-'16	Percent Change '15-'16
TELECOMMUNICATIONS AND INTERNET SERVICES									
Telecommunications									
517110	Wired Telecommunication Carriers	$81,092	$82,058	$82,399	$82,523	$84,225	$85,274	$1,050	1.2%
517210	Wireless Telecomm. Carriers (except Satellite)	$71,985	$73,804	$74,434	$75,576	$78,360	$77,334	-$1,026	-1.3%
517410	Satellite Telecommunications	$100,032	$101,068	$108,019	$102,451	$105,299	$104,367	-$932	-0.9%
517911	Telecommunication Resellers	$80,868	$79,061	$74,565	$75,417	$79,006	$77,944	-$1,062	-1.3%
517919	All Other Telecommunications	$98,814	$95,545	$100,350	$105,365	$110,272	$110,103	-$168	-0.2%
Internet Hosting, Web Search, and Related Services									
518210	Data Processing, Hosting, and Related Services	$88,264	$88,771	$89,862	$93,754	$99,897	$102,499	$2,602	2.6%
519130	Internet Publishing and Web Search Portals	$143,641	$150,718	$209,374	$195,612	$200,041	$201,376	$1,336	0.7%
SOFTWARE									
511210	Software Publishers [packaged software]	$137,747	$137,292	$137,316	$143,519	$149,156	$150,118	$962	0.6%
IT SERVICES									
Computer Systems Design and Related Services									
541511	Custom Computer Programming Services	$105,245	$105,685	$105,451	$109,153	$110,766	$110,468	-$297	-0.3%
541512	Computer Systems Design Services	$102,761	$111,710	$102,138	$102,759	$106,489	$105,811	-$677	-0.6%
541513	Computer Facilities Management Services	$83,199	$84,232	$87,596	$85,984	$94,136	$91,430	-$2,706	-2.9%
541519	Other Computer Related Services	$91,975	$100,337	$102,576	$103,850	$107,159	$106,980	-$179	-0.2%
Computer and Electronic Repair and Maintenance									
811211	Consumer Electronics Repair and Maintenance	$42,340	$41,991	$41,779	$39,864	$39,608	$39,167	-$441	-1.1%
811212	Computer and Office Machine Repair and Maintenance	$53,717	$53,635	$53,569	$54,433	$56,937	$56,700	-$237	-0.4%
811213	Communication Equipment Repair and Maintenance	$57,356	$60,688	$58,677	$60,283	$58,837	$57,611	-$1,227	-2.1%
811219	Other Electronic and Precision Equipment	$67,475	$67,029	$66,515	$68,055	$69,597	$68,577	-$1,020	-1.5%
Other									
611420	Computer Training	$64,728	$65,160	$69,631	$72,917	$75,229	$74,486	-$743	-1.0%
423430	Computer & Peripheral Equip. & Software Wholesalers	$123,467	$122,929	$121,465	$124,281	$127,694	$125,616	-$2,078	-1.6%
ENGINEERING SERVICES, R&D, AND TESTING SERVICES									
541330	Engineering Services	$91,468	$92,013	$91,969	$93,120	$94,548	$92,892	-$1,655	-1.8%
R&D and Testing Labs									
541380	Testing Laboratories	$70,905	$71,751	$71,966	$72,735	$73,643	$72,574	-$1,069	-1.5%
541711	R&D in Biotechnology	$123,120	$129,352	$132,985	$145,534	$162,748	$152,363	-$10,385	-6.4%
541712	R&D in the Physical, Eng., and Life Sciences	$110,505	$113,664	$115,833	$119,021	$127,801	$120,806	-$6,996	-5.5%
	TELECOMMUNICATIONS & INTERNET SERVICES	**$87,110**	**$89,515**	**$97,466**	**$98,571**	**$104,416**	**$107,692**	**$3,276**	**3.1%**
	SOFTWARE PUBLISHING	**$137,747**	**$137,292**	**$137,316**	**$143,519**	**$149,156**	**$150,118**	**$962**	**0.6%**
	IT SERVICES	**$99,179**	**$103,518**	**$99,880**	**$101,847**	**$104,788**	**$104,224**	**-$564**	**-0.5%**
	ENGINEERING SERVICES, R&D, AND TESTING SERVICES	**$97,429**	**$99,056**	**$99,847**	**$102,387**	**$107,510**	**$104,072**	**-$3,438**	**-3.2%**
	OVERALL TECH SECTOR AVERAGE WAGE	**$100,009**	**$102,372**	**$102,990**	**$105,440**	**$109,676**	**$108,914**	**-$762**	**-0.7%**

Sources: EMSI | U.S. Bureau of Labor Statistics

U.S. TECH OCCUPATION EMPLOYMENT

			2015	2016	Numeric Change	Percent Change
IT OCCUPATIONS						
11-3021	Computer and Information Systems Managers		346,077	355,480	9,402	2.7%
15-1111	Computer and Information Research Scientists		27,021	27,675	654	2.4%
15-1121	Computer Systems Analysts		562,373	581,086	18,713	3.3%
15-1122	Information Security Analysts		90,402	92,866	2,464	2.7%
15-1131	Computer Programmers		293,741	297,964	4,223	1.4%
15-1132	Software Developers, Applications		757,908	785,857	27,949	3.7%
15-1133	Software Developers, Systems Software		397,281	407,733	10,452	2.6%
15-1134	Web Developers		129,333	134,824	5,491	4.2%
15-1141	Database Administrators		115,197	117,638	2,441	2.1%
15-1142	Network and Computer Systems Administrators		376,964	384,151	7,188	1.9%
15-1143	Computer Network Architects		148,915	151,795	2,880	1.9%
15-1151	Computer Support Specialists		589,052	603,391	14,339	2.4%
15-1152	Computer Network Support Specialists		187,366	190,646	3,280	1.8%
15-1199	Computer Occupations, All Other		232,490	235,839	3,349	1.4%
		SUBTOTAL	**4,254,120**	**4,366,946**	**112,826**	**2.7%**
ENGINEERING OCCUPATIONS						
11-9041	Engineering Managers		181,868	184,101	2,232	1.2%
17-2011	Aerospace Engineers		68,723	68,992	268	0.4%
17-2031	Biomedical Engineers		21,671	22,213	542	2.5%
17-2061	Computer Hardware Engineers		77,463	78,801	1,339	1.7%
17-2071	Electrical Engineers		179,341	181,025	1,684	0.9%
17-2072	Electronics Engineers, Except Computer		138,286	138,364	78	0.1%
17-2112	Industrial Engineers		248,146	251,476	3,330	1.3%
17-2131	Materials Engineers		27,937	28,191	254	0.9%
17-2141	Mechanical Engineers		280,087	285,030	4,943	1.8%
17-2199	Engineers, All Other		129,654	131,432	1,778	1.4%
		SUBTOTAL	**1,353,177**	**1,369,626**	**16,449**	**1.2%**
ENGINEERING AND AUDIO/VIDEO TECHNICIANS						
17-3021	Aerospace Engineering and Operations Technicians		13,108	13,198	90	0.7%
17-3023	Electrical and Electronics Engineering Technicians		140,960	141,442	482	0.3%
17-3024	Electro-Mechanical Technicians		15,197	15,298	101	0.7%
17-3026	Industrial Engineering Technicians		63,025	63,621	596	0.9%
17-3027	Mechanical Engineering Technicians		49,788	50,484	696	1.4%
17-3029	Engineering Technicians, Except Drafters, All Other		73,089	73,901	812	1.1%
27-4011	Audio and Video Equipment Technicians		62,409	63,659	1,249	2.0%
27-4012	Broadcast Technicians		27,790	27,671	-119	-0.4%
27-4014	Sound Engineering Technicians		13,822	14,020	198	1.4%
		SUBTOTAL	**459,188**	**463,294**	**4,106**	**0.9%**
COMPUTER OPERATORS						
43-9011	Computer Operators		53,007	53,182	174	0.3%
		SUBTOTAL	**53,007**	**53,182**	**174**	**0.3%**
ELECTRICAL, ELECTRONIC, AND COMPUTER INSTALLERS AND REPAIRERS						
49-2011	Computer, Automated Teller, and Office Machine Repairers		106,153	107,046	893	0.8%
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairs		14,173	13,956	-217	-1.5%
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers		218,816	217,791	-1,026	-0.5%
49-2091	Avionics Technicians		17,504	17,757	254	1.4%
49-2092	Electric Motor, Power Tool, and Related Repairers		17,829	18,102	273	1.5%
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment		9,756	9,947	191	2.0%
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment		71,219	71,826	607	0.9%
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay		23,195	23,274	80	0.3%
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles		12,517	12,354	-163	-1.3%
49-2097	Electronic Home Entertainment Equipment Installers and Repairers		27,044	27,420	376	1.4%
49-2098	Security and Fire Alarm Systems Installers		65,436	67,546	2,111	3.2%
		SUBTOTAL	**583,642**	**587,020**	**3,378**	**0.6%**
ELECTRICAL, ELECTRONICS, AND ELECTROMECHANICAL ASSEMBLERS						
51-2021	Coil Winders, Tapers, and Finishers		14,520	14,583	63	0.4%
51-2022	Electrical and Electronic Equipment Assemblers		211,173	211,979	806	0.4%
51-2023	Electromechanical Equipment Assemblers		47,805	47,997	192	0.4%
		SUBTOTAL	**273,497**	**274,559**	**1,061**	**0.4%**
COMPUTER-CONTROLLED MACHINE PROGRAMMERS AND OPERATORS						
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic		145,291	148,741	3,450	2.4%
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic		25,864	26,505	641	2.5%
		SUBTOTAL	**171,155**	**175,247**	**4,091**	2.4%
		TOTAL TECH OCCUPATION EMPLOYMENT	**7,147,786**	**7,289,872**	**142,086**	**2.0%**

Sources: EMSI | U.S. Bureau of Labor Statistics

U.S. TECH OCCUPATION GROWTH PROJECTIONS

		Projected Employment 2024	Job Openings Due to Growth and Replacement Needs, 2014-2024
CORE IT OCCUPATIONS			
11-3021	Computer and Information Systems Managers	402,200	94,800
15-1111	Computer and Information Research Scientists	28,300	6,000
15-1121	Computer Systems Analysts	686,300	191,600
15-1122	Information Security Analysts	97,700	25,500
15-1131	Computer Programmers	302,200	81,000
15-1132	Software Developers, Applications	853,700	238,000
15-1133	Software Developers, Systems Software	447,000	107,900
15-1134	Web Developers	188,000	58,600
15-1141	Database Administrators	133,400	39,200
15-1142	Network and Computer Systems Administrators	412,800	79,400
15-1143	Computer Network Architects	158,900	31,500
15-1151	Computer User Support Specialists	661,000	150,500
15-1152	Computer Network Support Specialists	194,600	36,900
15-1199	Computer Occupations, All Other	240,800	37,700
17-2061	Computer Hardware Engineers	80,100	18,400
49-2011	Computer, Automated Teller, and Office Machine Repairers	134,800	28,600
	SUBTOTAL	**5,021,800**	**1,225,600**
ENGINEERING, TECHNICIANS, REPAIRER, AND ASSEMBLER OCCUPATIONS			
11-9041	Engineering Managers	185,800	59,500
17-2011	Aerospace Engineers	70,800	20,700
17-2031	Biomedical Engineers	27,200	10,900
17-2071	Electrical Engineers	180,200	41,100
17-2072	Electronics Engineers, Except Computer	135,500	30,300
17-2112	Industrial Engineers	243,200	72,800
17-2131	Materials Engineers	25,600	9,200
17-2141	Mechanical Engineers	292,100	102,500
17-2199	Engineers, All Other	142,300	33,000
17-3021	Aerospace Engineering and Operations Technicians	11,800	3,200
17-3023	Electrical and Electronics Engineering Technicians	136,600	34,100
17-3024	Electro-Mechanical Technicians	14,800	3,700
17-3026	Industrial Engineering Technicians	63,500	16,300
17-3027	Mechanical Engineering Technicians	49,300	12,800
17-3029	Engineering Technicians, Except Drafters, All Other	69,900	17,100
27-4011	Audio and Video Equipment Technicians	79,400	21,900
27-4012	Broadcast Technicians	28,200	5,700
27-4014	Sound Engineering Technicians	17,400	4,300
43-9011	Computer Operators	49,500	4,600
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	174,800	71,200
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	29,900	12,400
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairs	14,400	2,100
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers	210,800	19,700
51-2020	Electronic Equipment Assemblers and Finishers	255,800	33,100
49-2090	Other Repairers, Installers, and Technicians	250,800	59,000
	SUBTOTAL	**2,759,600**	**701,200**
	TOTAL	**7,781,400**	**1,926,800**

Source: U.S. Bureau of Labor Statistics

U.S. TECH SECTOR EMPLOYMENT GENDER RATIOS

TECHNOLOGY MANUFACTURING	Count of Tech Sector Male Workers	Count of Tech Sector Female Workers	% of Tech Sector Male Workers	% of Tech Sector Female Workers
Computer and Peripheral Equipment Manufacturing	113,541	51,077	69%	31%
Communications Equipment Consumer Electronics Manufacturing	74,493	32,280	70%	30%
Electronic Components Manufacturing	111,067	73,822	60%	40%
Semiconductor Manufacturing	141,214	58,582	71%	29%
Measuring and Control Instruments Manufacturing	267,015	130,026	67%	33%
Reproducing Magnetic and Optical Media Manufacturing	10,195	5,417	65%	35%
Space and Defense Systems Manufacturing	53,781	16,928	76%	24%
SUBTOTAL	**771,307**	**368,132**	**68%**	**32%**
TELECOMMUNICATIONS AND INTERNET SERVICES				
Telecommunications				
Wired Telecommunication Carriers	397,698	190,306	68%	32%
Wireless Telecomm. Carriers (except Satellite)	75,902	51,411	60%	40%
Satellite Telecommunications	5,818	2,356	71%	29%
Telecommunication Resellers	32,863	19,366	63%	37%
All Other Telecommunications	17,691	9,708	65%	35%
SUBTOTAL	**529,972**	**273,148**	**66%**	**34%**
Internet Hosting, Web Search, and Related Services				
Data Processing, Hosting, and Related Services	169,162	129,764	57%	43%
Internet Publishing and Web Search Portals	116,624	78,340	60%	40%
SUBTOTAL	**285,786**	**208,103**	**58%**	**42%**
SOFTWARE				
Software Publishers	230,139	113,390	67%	33%
SUBTOTAL	**230,139**	**113,390**	**67%**	**33%**
IT SERVICES				
Computer Systems Design and Related Services				
Custom Computer Programming Services	564,869	280,773	67%	33%
Computer Systems Design Services	615,153	308,985	67%	33%
Computer Facilities Management Services	41,331	23,955	63%	37%
Other Computer Related Services	73,910	36,694	67%	33%
SUBTOTAL	**1,295,264**	**650,407**	**67%**	**33%**
Computer and Electronic Repair and Maintenance				
Consumer Electronics Repair and Maintenance	8,787	3,331	73%	27%
Computer and Office Machine Repair and Maintenance	31,948	10,542	75%	25%
Communication Equipment Repair and Maintenance	10,741	3,669	75%	25%
Other Electronic and Precision Equipment	25,210	8,075	76%	24%
SUBTOTAL	**76,686**	**25,618**	**75%**	**25%**
Other				
Computer Training	6,951	8,070	46%	54%
Computer & Peripheral Equip. & Software Wholesalers	145,985	75,469	66%	34%
SUBTOTAL	**152,936**	**83,538**	**65%**	**35%**
ENGINEERING SERVICES, R&D, AND TESTING SERVICES				
Engineering Services	678,150	259,518	72%	28%
SUBTOTAL	**678,150**	**259,518**	**72%**	**28%**
R&D and Testing Labs				
Testing Laboratories	119,402	45,463	72%	28%
R&D in Biotechnology	87,774	76,547	53%	47%
R&D in the Physical, Eng., and Life Sciences	264,053	181,255	59%	41%
SUBTOTAL	**471,230**	**303,264**	**61%**	**39%**
TOTAL TECH MANUFACTURING	**771,307**	**368,132**	**68%**	**32%**
TOTAL TELECOMMUNICATIONS & INTERNET SERVICES	**815,757**	**481,251**	**63%**	**37%**
TOTAL SOFTWARE	**230,139**	**113,390**	**67%**	**33%**
TOTAL IT SERVICES	**1,524,885**	**759,562**	**67%**	**33%**
TOTAL ENGINEERING SERVICES, R&D, AND TESTING SERVICES	**1,149,380**	**562,783**	**67%**	**33%**
TOTAL TECH EMPLOYMENT BY GENDER	**4,491,468**	**2,285,119**	**66%**	**34%**

Sources: EMSI | U.S. Bureau of Labor Statistics
Minor differences may exist between the totals on this page and industry totals presented throughout this report

U.S. TECH SECTOR SELF-EMPLOYED AND SOLE PROPRIETORS

APPENDIX A.10

		2015 Self-Employed or Sole Proprietor Workers	2016 Self-Employed or Sole Proprietor Workers	Numerical Change	Percent Change
TECHNOLOGY MANUFACTURING					
Computer and Peripheral Equipment Manufacturing		3,056	3,412	356	11.6%
Communications Equipment Consumer Electronics Manufacturing		4,665	5,107	442	9.5%
Electronic Components Manufacturing		4,894	5,279	385	7.9%
Semiconductor Manufacturing		2,110	2,267	157	7.4%
Measuring and Control Instruments Manufacturing		11,154	12,116	962	8.6%
Reproducing Magnetic and Optical Media Manufacturing		2,048	2,201	154	7.5%
Space and Defense Systems Manufacturing		254	261	7	2.6%
	SUBTOTAL	**28,181**	**30,643**	**2,462**	**8.7%**
TELECOMMUNICATIONS AND INTERNET SERVICES					
Telecommunications					
Wired Telecommunication Carriers		124,565	128,906	4,341	3.5%
Wireless Telecomm. Carriers (except Satellite)		23,453	23,133	-320	-1.4%
Satellite Telecommunications		2,310	2,354	44	1.9%
Telecommunication Resellers		11,901	12,470	569	4.8%
All Other Telecommunications		13,971	14,675	703	5.0%
	SUBTOTAL	**176,200**	**181,537**	**5,337**	**3.0%**
Internet Hosting, Web Search, and Related Services					
Data Processing, Hosting, and Related Services		86,700	90,654	3,954	4.6%
Internet Publishing and Web Search Portals		46,766	49,348	2,582	5.5%
	SUBTOTAL	**133,466**	**140,003**	**6,537**	**4.9%**
SOFTWARE					
Software Publishers		52,462	55,601	3,139	6.0%
	SUBTOTAL	**52,462**	**55,601**	**3,139**	**6.0%**
IT SERVICES					
Computer Systems Design and Related Services					
Custom Computer Programming Services		210,354	214,013	3,659	1.7%
Computer Systems Design Services		156,128	155,298	-831	-0.5%
Computer Facilities Management Services		19,648	20,628	980	5.0%
Other Computer Related Services		37,513	36,750	-762	-2.0%
	SUBTOTAL	**423,643**	**426,689**	**3,046**	**0.7%**
Computer and Electronic Repair and Maintenance					
Consumer Electronics Repair and Maintenance		8,961	8,720	-241	-2.7%
Computer and Office Machine Repair and Maintenance		26,855	27,025	170	0.6%
Communication Equipment Repair and Maintenance		7,163	7,372	209	2.9%
Other Electronic and Precision Equipment		15,121	15,238	117	0.8%
	SUBTOTAL	**58,101**	**58,355**	**254**	**0.4%**
Other					
Computer Training		23,314	23,480	166	0.7%
Computer & Peripheral Equip. & Software Wholesalers		5,794	6,131	337	5.8%
	SUBTOTAL	**29,108**	**29,611**	**503**	**1.7%**
ENGINEERING SERVICES, R&D, AND TESTING SERVICES					
Engineering Services		119,251	118,689	-562	-0.5%
	SUBTOTAL	**119,251**	**118,689**	**-562**	**-0.5%**
R&D and Testing Labs					
Testing Laboratories		5,141	5,351	210	4.1%
R&D in Biotechnology		10,164	10,472	308	3.0%
R&D in the Physical, Eng., and Life Sciences		35,464	36,961	1,497	4.2%
	SUBTOTAL	**50,769**	**52,784**	**2,015**	**4.0%**
	TOTAL TECH MANUFACTURING	**28,181**	**30,643**	**2,462**	**8.7%**
	TOTAL TELECOMMUNICATIONS & INTERNET SERVICES	**309,666**	**321,540**	**11,874**	**3.8%**
	TOTAL SOFTWARE [PACKAGED]	**52,462**	**55,601**	**3,139**	**6.0%**
	TOTAL IT SERVICES	**510,851**	**514,654**	**3,803**	**0.7%**
	TOTAL ENGINEERING SERVICES, R&D, AND TESTING SERVICES	**170,020**	**171,473**	**1,453**	**0.9%**
	TOTAL SELF-EMPLOYED AND SOLE PROPRIETORS	**1,071,181**	**1,093,912**	**22,730**	**2.1%**

Sources: EMSI | U.S. Bureau of Labor Statistics

APPENDIX B – STATE DATA TABLES

TECH SECTOR EMPLOYMENT BY STATE

	2010	2011	2012	2013	2014	2015	2016 est.	Numeric Change 2015-16	Percent Change 2015-16
Alabama	81,508	79,808	79,544	79,262	78,935	78,744	79,619	875	1.1%
Alaska	10,466	10,684	11,041	11,005	10,890	10,844	10,610	-234	-2.2%
Arizona	124,828	128,135	129,923	133,291	133,866	136,894	139,439	2,545	1.9%
Arkansas	26,541	27,132	26,091	26,485	25,922	26,198	26,900	702	2.7%
California	974,072	997,723	1,027,875	1,054,849	1,090,615	1,137,893	1,186,471	48,578	4.3%
Colorado	170,509	175,191	176,636	180,454	184,163	189,920	196,651	6,731	3.5%
Connecticut	66,726	67,632	67,737	68,118	72,255	73,193	75,096	1,903	2.6%
Delaware	18,239	20,350	20,804	21,524	21,310	20,736	18,752	-1,984	-9.6%
District of Columbia	35,057	35,995	35,513	35,042	36,214	37,631	38,485	854	2.3%
Florida	288,796	291,341	292,131	294,629	300,496	308,757	318,343	9,586	3.1%
Georgia	178,984	179,280	185,026	191,337	198,472	201,262	207,865	6,603	3.3%
Hawaii	15,060	14,947	15,135	15,292	15,223	15,427	15,380	-47	-0.3%
Idaho	30,592	31,069	30,568	29,953	30,764	32,236	32,802	566	1.8%
Illinois	211,575	217,093	222,611	227,345	234,001	242,701	245,674	2,973	1.2%
Indiana	75,692	76,573	78,078	78,225	79,644	82,611	84,382	1,771	2.1%
Iowa	42,845	44,080	44,426	44,881	45,769	45,902	45,068	-834	-1.8%
Kansas	51,457	51,249	51,581	54,016	55,393	50,603	49,762	-841	-1.7%
Kentucky	48,165	48,969	49,360	49,449	49,717	51,216	50,793	-423	-0.8%
Louisiana	44,558	43,362	43,956	45,092	46,220	47,227	46,877	-350	-0.7%
Maine	15,122	14,253	15,005	15,436	15,719	16,014	16,190	176	1.1%
Maryland	180,385	181,509	180,712	179,319	180,661	181,204	182,539	1,335	0.7%
Massachusetts	262,156	267,158	272,380	277,862	282,938	291,191	300,632	9,441	3.2%
Michigan	162,934	171,294	181,682	187,994	194,724	211,260	221,994	10,734	5.1%
Minnesota	126,877	129,857	132,030	134,544	136,500	138,744	140,970	2,226	1.6%
Mississippi	20,942	20,855	21,144	21,102	21,695	22,699	22,261	-438	-1.9%
Missouri	92,766	93,765	100,386	102,245	106,938	108,840	112,073	3,233	3.0%
Montana	12,054	12,059	12,079	12,380	12,279	12,638	13,201	563	4.5%
Nebraska	30,536	30,684	31,372	32,129	32,333	33,395	34,220	825	2.5%
Nevada	27,331	27,197	27,826	28,116	29,166	30,199	31,003	804	2.7%
New Hampshire	37,179	38,028	38,340	38,820	39,787	40,982	41,846	864	2.1%
New Jersey	205,366	204,988	205,636	204,946	208,647	212,796	214,737	1,941	0.9%
New Mexico	50,004	49,973	48,380	47,512	46,493	47,113	47,252	139	0.3%
New York	312,725	325,203	336,092	341,024	354,072	366,526	377,736	11,210	3.1%
North Carolina	152,982	164,567	168,682	171,418	177,383	186,785	197,880	11,095	5.9%
North Dakota	11,512	11,247	11,992	12,299	12,899	12,631	12,578	-53	-0.4%
Ohio	170,000	175,389	170,060	173,031	175,548	178,921	183,989	5,068	2.8%
Oklahoma	38,877	38,175	37,409	36,095	36,778	36,724	36,336	-388	-1.1%
Oregon	80,431	83,221	85,674	87,159	88,211	91,757	95,307	3,550	3.9%
Pennsylvania	216,792	219,344	224,540	226,564	227,472	232,626	237,664	5,038	2.2%
Rhode Island	19,500	19,959	19,927	19,702	20,041	20,308	20,189	-119	-0.6%
South Carolina	51,891	55,950	55,360	56,485	58,103	60,377	62,360	1,983	3.3%
South Dakota	9,437	9,563	9,822	9,937	10,339	10,201	10,595	394	3.9%
Tennessee	67,896	69,008	69,522	73,367	75,800	78,265	77,683	-582	-0.7%
Texas	506,378	526,749	546,044	561,267	571,723	581,899	592,960	11,061	1.9%
Utah	67,066	69,511	73,263	76,832	78,901	82,310	87,234	4,924	6.0%
Vermont	14,643	14,509	14,455	14,157	13,566	13,527	13,376	-151	-1.1%
Virginia	291,052	294,874	292,537	286,846	281,421	287,167	291,312	4,145	1.4%
Washington	190,383	196,540	200,021	203,132	209,360	215,826	226,452	10,626	4.9%
West Virginia	16,415	16,570	15,700	15,653	15,577	15,584	15,460	-124	-0.8%
Wisconsin	86,942	90,432	92,467	92,206	93,742	97,633	101,542	3,909	4.0%
Wyoming	4,875	4,722	4,807	4,894	5,075	4,998	4,820	-178	-3.6%

Sources: EMSI | U.S. Bureau of Labor Statistics

TECH SECTOR BUSINESS ESTABLISHMENTS BY STATE

	2010	2011	2012	2013	2014	2015	2016 est.	Numeric Change 2015-16	Percent Change 2015-16
Alabama	5,064	5,191	5,279	5,431	5,580	5,745	5,848	103	1.8%
Alaska	857	855	873	881	879	909	912	3	0.3%
Arizona	7,778	8,030	8,198	8,208	8,418	8,480	8,618	138	1.6%
Arkansas	2,615	2,683	2,811	2,970	3,016	3,155	3,223	68	2.2%
California	44,856	44,352	45,662	46,293	48,304	50,391	51,138	747	1.5%
Colorado	13,429	13,575	14,016	14,425	14,382	15,765	16,124	359	2.3%
Connecticut	5,658	5,698	5,884	6,083	6,173	6,354	6,471	117	1.8%
Delaware	1,928	2,022	2,114	2,246	2,337	2,556	2,601	45	1.8%
District of Columbia	2,771	2,890	3,063	2,959	2,976	3,376	3,502	126	3.7%
Florida	27,340	27,347	28,633	29,355	29,739	30,040	30,721	681	2.3%
Georgia	15,378	15,828	15,868	16,261	16,438	17,876	18,293	417	2.3%
Hawaii	1,713	1,714	1,783	1,894	1,950	1,998	2,072	74	3.7%
Idaho	2,311	2,339	2,393	2,515	2,629	2,855	2,941	86	3.0%
Illinois	20,861	21,773	22,617	23,534	24,200	24,252	24,353	101	0.4%
Indiana	6,975	7,279	7,488	7,632	7,742	7,758	7,889	131	1.7%
Iowa	3,314	3,328	3,539	3,791	3,930	4,191	4,234	43	1.0%
Kansas	3,957	4,158	4,023	4,149	4,229	4,446	4,592	146	3.3%
Kentucky	4,286	4,309	4,542	5,007	5,119	5,629	5,682	53	0.9%
Louisiana	4,481	4,432	4,672	4,877	4,980	4,740	4,884	144	3.0%
Maine	2,115	2,235	2,369	2,388	2,336	2,575	2,641	66	2.6%
Maryland	12,409	12,879	13,591	13,959	13,807	14,406	14,571	165	1.1%
Massachusetts	13,546	14,340	14,303	14,411	14,572	15,743	16,094	351	2.2%
Michigan	10,411	10,515	11,188	11,388	11,341	11,150	11,223	73	0.7%
Minnesota	8,499	8,777	9,130	9,023	9,187	9,197	9,165	-32	-0.3%
Mississippi	2,257	2,327	2,443	2,670	2,776	2,932	3,042	110	3.8%
Missouri	6,626	6,636	6,873	7,250	7,385	7,945	8,029	84	1.1%
Montana	1,679	1,720	1,758	1,837	1,874	1,999	2,038	39	2.0%
Nebraska	2,515	2,553	2,669	2,816	2,892	3,097	3,112	15	0.5%
Nevada	3,610	3,817	4,117	4,436	4,550	4,963	5,003	40	0.8%
New Hampshire	3,377	3,452	3,623	3,753	3,832	4,015	4,058	43	1.1%
New Jersey	15,957	15,796	15,352	15,271	15,476	15,531	16,114	583	3.8%
New Mexico	2,679	2,775	2,815	2,878	2,904	2,947	2,985	38	1.3%
New York	22,089	22,060	22,181	22,956	23,290	24,587	24,326	-261	-1.1%
North Carolina	12,069	13,133	13,960	14,593	15,000	16,296	16,605	309	1.9%
North Dakota	871	929	1,002	1,090	1,142	1,263	1,257	-6	-0.5%
Ohio	12,824	13,378	13,683	14,167	14,359	15,073	15,312	239	1.6%
Oklahoma	3,724	3,766	3,843	3,870	3,927	4,059	4,052	-7	-0.2%
Oregon	5,256	5,419	5,609	5,920	6,078	6,505	6,800	295	4.5%
Pennsylvania	13,944	14,372	14,936	14,774	15,142	15,734	16,027	293	1.9%
Rhode Island	1,986	2,008	2,124	2,204	2,229	2,463	2,496	33	1.3%
South Carolina	4,585	4,841	5,124	5,676	5,796	6,154	6,391	237	3.9%
South Dakota	1,079	1,129	1,189	1,246	1,263	1,304	1,321	17	1.3%
Tennessee	5,639	5,850	6,228	6,571	6,673	7,265	7,394	129	1.8%
Texas	29,986	30,802	31,773	32,603	33,215	35,334	36,245	911	2.6%
Utah	4,975	5,106	5,372	5,650	5,793	6,205	6,325	120	1.9%
Vermont	1,164	1,233	1,294	1,336	1,358	1,449	1,494	45	3.1%
Virginia	18,080	18,310	18,919	19,314	19,520	20,642	21,238	596	2.9%
Washington	9,688	9,781	10,145	10,878	11,475	13,025	13,362	337	2.6%
West Virginia	1,542	1,610	1,664	1,754	1,789	1,969	2,009	40	2.0%
Wisconsin	5,372	5,721	5,908	6,290	6,141	6,561	6,755	194	3.0%
Wyoming	826	833	856	886	903	969	970	1	0.1%

Sources: EMSI | U.S. Bureau of Labor Statistics

TECH SECTOR AVERAGE ANNUAL WAGES BY STATE

(adjusted for inflation to 2016 dollars)

	2010	2011	2012	2013	2014	2015	2016 est.	Numeric Change 2015-16	Percent Change 2015-16
Alabama	$79,404	$79,738	$79,964	$80,078	$81,094	$83,241	$82,428	-$813	-1.0%
Alaska	$80,726	$81,151	$78,391	$78,999	$81,526	$82,532	$79,579	-$2,953	-3.6%
Arizona	$93,991	$95,143	$95,103	$95,086	$96,848	$98,099	$97,352	-$747	-0.8%
Arkansas	$66,594	$67,702	$66,082	$68,567	$68,236	$69,497	$69,345	-$152	-0.2%
California	$127,116	$130,818	$139,816	$141,831	$147,088	$156,822	$153,990	-$2,832	-1.8%
Colorado	$104,458	$103,827	$104,512	$105,056	$107,912	$108,767	$106,935	-$1,833	-1.7%
Connecticut	$99,165	$99,260	$98,935	$100,610	$102,597	$104,916	$105,548	$632	0.6%
Delaware	$98,963	$98,439	$100,490	$103,056	$109,188	$116,841	$104,440	-$12,401	-10.6%
District of Columbia	$108,230	$106,763	$107,586	$109,048	$110,329	$112,221	$113,592	$1,370	1.2%
Florida	$80,463	$81,247	$82,573	$82,884	$83,724	$86,487	$86,563	$77	0.1%
Georgia	$91,038	$92,467	$93,111	$92,005	$92,175	$94,201	$94,915	$715	0.8%
Hawaii	$80,290	$79,612	$80,396	$80,318	$81,130	$82,736	$81,629	-$1,107	-1.3%
Idaho	$83,216	$81,399	$80,355	$86,524	$92,805	$86,759	$83,418	-$3,340	-3.9%
Illinois	$91,094	$92,817	$94,696	$94,519	$96,314	$100,458	$99,499	-$959	-1.0%
Indiana	$70,755	$71,593	$70,942	$73,866	$72,175	$74,691	$74,141	-$550	-0.7%
Iowa	$70,533	$71,374	$72,410	$73,810	$74,350	$77,363	$77,605	$241	0.3%
Kansas	$80,206	$79,149	$81,498	$82,423	$83,166	$80,588	$79,350	-$1,238	-1.5%
Kentucky	$63,658	$64,495	$65,499	$65,575	$67,164	$68,987	$69,258	$270	0.4%
Louisiana	$72,559	$71,495	$73,025	$73,521	$75,086	$76,218	$75,163	-$1,055	-1.4%
Maine	$71,627	$72,315	$69,493	$71,026	$72,255	$76,475	$77,586	$1,111	1.5%
Maryland	$104,059	$104,122	$106,404	$104,651	$105,411	$107,516	$107,193	-$323	-0.3%
Massachusetts	$123,190	$123,414	$124,958	$124,475	$127,853	$132,652	$131,329	-$1,323	-1.0%
Michigan	$85,326	$86,217	$84,795	$84,523	$85,179	$89,482	$89,159	-$323	-0.4%
Minnesota	$89,641	$90,333	$90,209	$92,480	$93,568	$97,110	$95,939	-$1,171	-1.2%
Mississippi	$60,701	$60,258	$61,003	$60,989	$61,306	$60,228	$63,183	$2,955	4.9%
Missouri	$86,794	$85,833	$86,634	$84,105	$84,975	$88,296	$86,936	-$1,360	-1.5%
Montana	$63,060	$63,892	$70,805	$65,238	$67,361	$69,274	$68,673	-$600	-0.9%
Nebraska	$70,536	$71,401	$71,085	$71,820	$71,477	$73,666	$73,931	$265	0.4%
Nevada	$80,499	$80,760	$81,444	$81,481	$83,178	$83,376	$83,193	-$183	-0.2%
New Hampshire	$96,937	$96,240	$96,165	$97,491	$101,998	$100,111	$100,190	$79	0.1%
New Jersey	$109,368	$110,155	$113,821	$115,310	$116,951	$124,387	$121,075	-$3,313	-2.7%
New Mexico	$83,528	$82,944	$83,637	$82,328	$84,043	$84,247	$85,198	$951	1.1%
New York	$102,148	$102,615	$103,380	$104,436	$109,493	$116,200	$118,409	$2,209	1.9%
North Carolina	$92,349	$90,391	$91,767	$92,222	$92,097	$93,952	$93,220	-$732	-0.8%
North Dakota	$66,088	$68,660	$72,593	$76,084	$79,831	$79,502	$78,576	-$926	-1.2%
Ohio	$78,647	$78,503	$78,012	$77,776	$78,537	$80,793	$80,189	-$605	-0.7%
Oklahoma	$64,685	$64,959	$69,045	$68,624	$69,417	$70,193	$69,718	-$475	-0.7%
Oregon	$96,921	$99,481	$101,502	$99,162	$104,163	$107,860	$107,144	-$717	-0.7%
Pennsylvania	$92,253	$92,144	$93,351	$93,327	$93,409	$96,386	$95,630	-$757	-0.8%
Rhode Island	$79,207	$78,875	$78,792	$79,129	$81,199	$83,216	$82,685	-$531	-0.6%
South Carolina	$73,611	$71,886	$73,952	$74,403	$74,848	$76,605	$76,589	-$16	0.0%
South Dakota	$57,097	$58,785	$59,139	$58,020	$58,985	$61,640	$61,947	$307	0.5%
Tennessee	$77,710	$78,258	$79,618	$77,134	$77,447	$80,122	$80,244	$122	0.2%
Texas	$97,285	$98,652	$99,084	$99,385	$100,686	$103,327	$102,251	-$1,075	-1.0%
Utah	$76,318	$76,925	$76,942	$76,520	$79,352	$81,404	$81,364	-$40	0.0%
Vermont	$79,969	$79,813	$79,152	$80,360	$79,896	$82,767	$83,277	$510	0.6%
Virginia	$109,153	$109,116	$108,414	$109,054	$109,883	$112,935	$112,014	-$921	-0.8%
Washington	$115,307	$117,193	$122,165	$123,408	$130,280	$131,951	$134,755	$2,804	2.1%
West Virginia	$66,289	$65,031	$65,535	$64,640	$64,962	$67,013	$66,400	-$614	-0.9%
Wisconsin	$73,256	$73,212	$73,403	$75,946	$77,645	$80,461	$79,521	-$940	-1.2%
Wyoming	$63,651	$64,257	$63,639	$64,493	$67,382	$65,462	$63,899	-$1,563	-2.4%

Sources: EMSI | U.S. Bureau of Labor Statistics

ESTIMATED STATE TECH GSP, 2016

	Tech Manufacturing	Telecom, Data Proc., and Internet Services	Software Publishing	IT Services and Custom Software Services	Engineering, R&D, and Testing Services	Total Tech GSP	State Economy GSP	Tech Sector as a % of Total GSP
Alabama	$1,890,313,015	$2,636,088,515	$207,248,660	$3,002,881,724	$3,167,343,059	$10,903,874,974	$199,656,000,000	5.5%
Alaska	$20,585,489	$1,462,446,571	$4,659,778	$190,570,989	$560,503,673	$2,238,766,500	$52,747,000,000	4.2%
Arizona	$10,222,441,895	$5,897,947,103	$861,249,077	$5,102,136,662	$3,026,682,479	$25,110,457,216	$290,903,000,000	8.6%
Arkansas	$287,326,883	$1,891,979,669	$77,820,717	$1,223,200,635	$414,588,341	$3,894,916,246	$118,907,000,000	3.3%
California	$92,071,074,957	$83,833,954,850	$28,331,260,383	$64,608,759,221	$43,205,237,872	$312,050,287,283	$2,481,348,000,000	12.6%
Colorado	$5,826,411,121	$11,634,407,179	$3,078,232,396	$9,459,313,137	$6,175,399,860	$36,173,763,693	$313,748,000,000	11.5%
Connecticut	$2,013,672,635	$3,677,664,407	$1,036,917,276	$4,448,170,420	$2,352,178,320	$13,528,603,057	$252,930,000,000	5.3%
Delaware	$1,043,883,554	$1,213,072,274	$109,446,738	$707,556,938	$1,269,717,609	$4,343,677,112	$68,724,000,000	6.3%
District of Columbia	$24,124,996	$1,340,824,604	$215,376,330	$3,340,406,558	$1,294,351,805	$6,215,084,292	$122,146,000,000	5.1%
Florida	$9,190,194,492	$19,155,442,033	$3,244,447,824	$14,782,991,779	$7,805,208,826	$54,178,284,955	$888,087,000,000	6.1%
Georgia	$2,354,814,894	$17,687,417,495	$3,661,557,805	$11,889,082,998	$4,096,945,638	$39,689,818,829	$497,944,000,000	8.0%
Hawaii	$31,372,591	$1,304,820,322	$28,522,593	$642,780,599	$609,343,760	$2,616,839,865	$80,376,000,000	3.3%
Idaho	$2,378,829,074	$790,291,047	$67,298,849	$638,912,692	$1,112,762,278	$4,988,093,940	$65,549,000,000	7.6%
Illinois	$5,417,500,993	$14,276,874,372	$1,539,754,994	$14,498,231,947	$7,297,397,938	$43,029,760,245	$776,882,000,000	5.5%
Indiana	$2,376,940,671	$3,850,683,043	$482,649,388	$3,533,238,255	$1,896,992,872	$12,140,504,230	$336,053,000,000	3.6%
Iowa	$2,423,198,639	$2,180,974,041	$201,114,322	$1,321,085,169	$840,665,148	$6,967,037,319	$174,030,000,000	4.0%
Kansas	$657,630,241	$2,772,234,570	$274,382,890	$2,089,104,692	$1,547,507,974	$7,340,860,366	$149,641,000,000	4.9%
Kentucky	$790,688,297	$2,646,746,380	$70,775,241	$1,827,638,747	$1,188,219,220	$6,524,067,885	$193,274,000,000	3.4%
Louisiana	$342,528,926	$2,696,300,205	$108,890,797	$1,127,773,115	$2,336,255,365	$6,611,748,408	$239,305,000,000	2.8%
Maine	$347,582,404	$695,623,975	$45,016,164	$696,819,698	$507,647,808	$2,292,690,049	$57,297,000,000	4.0%
Maryland	$4,821,793,804	$6,110,313,227	$1,211,108,588	$11,899,168,321	$8,005,340,770	$32,047,724,709	$365,356,000,000	8.8%
Massachusetts	$15,170,767,396	$9,200,783,932	$8,178,907,200	$15,288,977,990	$13,595,522,723	$61,434,959,241	$484,943,000,000	12.7%
Michigan	$3,268,281,207	$6,367,548,078	$1,385,813,873	$7,569,364,573	$12,136,405,283	$30,727,413,014	$468,334,000,000	6.6%
Minnesota	$9,717,551,520	$4,441,776,845	$1,352,141,113	$5,931,694,031	$3,001,770,020	$24,444,933,529	$328,340,000,000	7.4%
Mississippi	$263,470,419	$1,554,644,620	$52,141,763	$584,298,080	$542,751,846	$2,997,306,728	$105,819,000,000	2.8%
Missouri	$1,517,302,167	$7,534,587,938	$509,845,030	$4,834,690,503	$2,868,585,741	$17,265,011,379	$294,491,000,000	5.9%
Montana	$133,509,992	$637,349,425	$47,651,241	$427,257,404	$423,990,592	$1,669,758,654	$45,237,000,000	3.7%
Nebraska	$534,925,469	$1,650,919,138	$213,545,512	$1,493,009,314	$619,552,730	$4,511,952,163	$113,282,000,000	4.0%
Nevada	$443,337,333	$1,781,253,185	$302,038,569	$1,209,519,518	$1,267,454,446	$5,003,603,051	$139,724,000,000	3.6%
New Hampshire	$2,717,924,943	$1,424,224,582	$805,257,636	$1,739,278,266	$800,018,866	$7,486,704,292	$73,867,000,000	10.1%
New Jersey	$4,561,073,833	$14,793,757,053	$1,516,607,234	$13,970,784,598	$10,603,005,795	$45,445,228,513	$567,738,000,000	8.0%
New Mexico	$1,391,027,129	$1,851,051,967	$77,204,045	$622,642,929	$3,430,795,889	$7,372,721,959	$93,339,000,000	7.9%
New York	$13,036,610,364	$37,290,268,981	$3,097,680,777	$21,194,876,828	$10,986,394,767	$85,605,831,718	$1,433,531,000,000	6.0%
North Carolina	$6,628,773,283	$9,860,865,011	$3,510,472,806	$7,628,781,428	$5,214,562,557	$32,843,455,085	$495,402,000,000	6.6%
North Dakota	$211,479,537	$677,212,443	$334,210,900	$266,132,552	$490,374,950	$1,979,410,382	$55,860,000,000	3.5%
Ohio	$3,294,995,205	$8,898,592,060	$1,340,210,022	$8,774,846,732	$5,361,605,388	$27,670,249,406	$610,928,000,000	4.5%
Oklahoma	$568,608,614	$2,404,987,869	$148,761,729	$1,050,088,457	$1,031,431,427	$5,203,878,096	$185,981,000,000	2.8%
Oregon	$29,709,745,473	$2,806,137,127	$2,556,947,290	$2,653,664,249	$1,488,505,862	$39,215,000,000	$217,629,000,000	18.0%
Pennsylvania	$5,452,395,636	$12,065,786,131	$1,593,797,947	$11,254,986,284	$9,745,884,671	$40,112,850,671	$709,762,000,000	5.7%
Rhode Island	$520,207,793	$1,002,240,732	$200,627,274	$883,250,210	$398,926,655	$3,005,252,664	$56,052,000,000	5.4%
South Carolina	$949,071,397	$3,577,376,189	$455,537,439	$2,118,807,465	$2,095,586,313	$9,196,378,803	$201,005,000,000	4.6%
South Dakota	$238,017,152	$708,894,433	$33,986,510	$290,354,656	$250,060,952	$1,521,313,702	$47,244,000,000	3.2%
Tennessee	$816,705,508	$4,491,626,939	$630,507,701	$2,931,588,396	$2,799,663,734	$11,670,092,278	$315,857,000,000	3.7%
Texas	$24,638,296,773	$36,805,272,748	$5,251,941,809	$32,828,169,164	$17,648,352,580	$117,172,033,074	$1,630,082,000,000	7.2%
Utah	$2,613,602,570	$2,756,285,940	$2,132,969,237	$3,138,887,981	$1,679,684,508	$12,321,430,236	$147,503,000,000	8.4%
Vermont	$848,067,059	$344,416,197	$118,100,687	$519,836,363	$222,895,571	$2,053,315,877	$30,038,000,000	6.8%
Virginia	$2,893,478,010	$13,097,712,774	$1,430,163,096	$25,401,646,794	$8,518,976,503	$51,341,977,177	$481,084,000,000	10.7%
Washington	$4,339,211,406	$16,068,164,969	$24,083,772,880	$9,210,370,543	$5,217,661,582	$58,919,181,381	$445,413,000,000	13.2%
West Virginia	$200,632,940	$1,132,562,388	$17,610,604	$404,698,376	$422,060,527	$2,177,564,835	$74,321,000,000	2.9%
Wisconsin	$3,038,707,369	$4,171,687,286	$2,746,343,743	$3,436,406,420	$1,994,929,875	$15,388,074,692	$302,076,000,000	5.1%
Wyoming	$24,349,268	$578,366,876	$10,997,668	$95,161,528	$161,442,558	$870,317,898	$39,864,000,000	2.2%

Source: EMSI | U.S. Bureau of Economic Analysis

TECH INDUSTRY EMPLOYMENT, 2016

Rank	State	Employment
	United States	**6,893,360**
1.	California	1,186,471
2.	Texas	592,960
3.	New York	377,736
4.	Florida	318,343
5.	Massachusetts	300,632
6.	Virginia	291,312
7.	Illinois	245,674
8.	Pennsylvania	237,664
9.	Washington	226,452
10.	Michigan	221,994
11.	New Jersey	214,737
12.	Georgia	207,865
13.	North Carolina	197,880
14.	Colorado	196,651
15.	Ohio	183,989
16.	Maryland	182,539
17.	Minnesota	140,970
18.	Arizona	139,439
19.	Missouri	112,073
20.	Wisconsin	101,542
21.	Oregon	95,307
22.	Utah	87,234
23.	Indiana	84,382
24.	Alabama	79,619
25.	Tennessee	77,683
26.	Connecticut	75,096
27.	South Carolina	62,360
28.	Kentucky	50,793
29.	Kansas	49,762
30.	New Mexico	47,252
31.	Louisiana	46,877
32.	Iowa	45,068
33.	New Hampshire	41,846
34.	District of Columbia	38,485
35.	Oklahoma	36,336
36.	Nebraska	34,220
37.	Idaho	32,802
38.	Nevada	31,003
39.	Arkansas	26,900
40.	Mississippi	22,261
41.	Rhode Island	20,189
42.	Delaware	18,752
43.	Maine	16,190
44.	West Virginia	15,460
45.	Hawaii	15,380
46.	Vermont	13,376
47.	Montana	13,201
48.	North Dakota	12,578
49.	Alaska	10,610
50.	South Dakota	10,595
51.	Wyoming	4,820

AVERAGE TECH INDUSTRY WAGES, 2016

Rank	State	Average Wages
	United States	**$108,900**
1.	California	$153,990
2.	Washington	$134,755
3.	Massachusetts	$131,329
4.	New Jersey	$121,075
5.	New York	$118,409
6.	District of Columbia	$113,592
7.	Virginia	$112,014
8.	Maryland	$107,193
9.	Oregon	$107,144
10.	Colorado	$106,935
11.	Connecticut	$105,548
12.	Delaware	$104,440
13.	Texas	$102,251
14.	New Hampshire	$100,190
15.	Illinois	$99,499
16.	Arizona	$97,352
17.	Minnesota	$95,939
18.	Pennsylvania	$95,630
19.	Georgia	$94,915
20.	North Carolina	$93,220
21.	Michigan	$89,159
22.	Missouri	$86,936
23.	Florida	$86,563
24.	New Mexico	$85,198
25.	Idaho	$83,418
26.	Vermont	$83,277
27.	Nevada	$83,193
28.	Rhode Island	$82,685
29.	Alabama	$82,428
30.	Hawaii	$81,629
31.	Utah	$81,364
32.	Tennessee	$80,244
33.	Ohio	$80,189
34.	Alaska	$79,579
35.	Wisconsin	$79,521
36.	Kansas	$79,350
37.	North Dakota	$78,576
38.	Iowa	$77,605
39.	Maine	$77,586
40.	South Carolina	$76,589
41.	Louisiana	$75,163
42.	Indiana	$74,141
43.	Nebraska	$73,931
44.	Oklahoma	$69,718
45.	Arkansas	$69,345
46.	Kentucky	$69,258
47.	Montana	$68,673
48.	West Virginia	$66,400
49.	Wyoming	$63,899
50.	Mississippi	$63,183
51.	South Dakota	$61,947

Sources: EMSI | U.S. Bureau of Labor Statistics

CYBERSTATES RANKINGS BY TECH EMPLOYMENT

	2010	2011	2012	2013	2014	2015	2016
California	1.	1.	1.	1.	1.	1.	1.
Texas	2.	2.	2.	2.	2.	2.	2.
New York	3.	3.	3.	3.	3.	3.	3.
Florida	5.	5.	5.	4.	4.	4.	4.
Massachusetts	6.	6.	6.	6.	5.	5.	5.
Virginia	4.	4.	4.	5.	6.	6.	6.
Illinois	8.	8.	8.	7.	8.	7.	7.
Pennsylvania	7.	7.	7.	8.	7.	8.	8.
Washington	10.	10.	10.	10.	9.	9.	9.
Michigan	15.	15.	12.	12.	12.	11.	10.
New Jersey	9.	9.	9.	9.	10.	10.	11.
Georgia	12.	12.	11.	11.	11.	12.	12.
North Carolina	16.	16.	16.	16.	15.	14.	13.
Colorado	13.	14.	14.	13.	13.	13.	14.
Ohio	14.	13.	15.	15.	16.	16.	15.
Maryland	11.	11.	13.	14.	14.	15.	16.
Minnesota	17.	17.	17.	17.	17.	17.	17.
Arizona	18.	18.	18.	18.	18.	18.	18.
Missouri	19.	19.	19.	19.	19.	19.	19.
Wisconsin	20.	20.	20.	20.	20.	20.	20.
Oregon	22.	21.	21.	21.	21.	21.	21.
Utah	25.	24.	24.	24.	24.	23.	22.
Indiana	23.	23.	23.	23.	22.	22.	23.
Alabama	21.	22.	22.	22.	23.	24.	24.
Tennessee	24.	25.	25.	25.	25.	25.	25.
Connecticut	26.	26.	26.	26.	26.	26.	26.
South Carolina	27.	27.	27.	27.	27.	27.	27.
Kentucky	30.	30.	29.	29.	29.	28.	28.
Kansas	28.	28.	28.	28.	28.	29.	29.
New Mexico	29.	29.	30.	30.	30.	31.	30.
Louisiana	31.	32.	32.	31.	32.	30.	31.
Iowa	32.	31.	31.	32.	31.	32.	32.
New Hampshire	34.	34.	33.	33.	33.	33.	33.
District of Columbia	35.	35.	35.	35.	35.	34.	34.
Oklahoma	33.	33.	34.	34.	34.	35.	35.
Nebraska	37.	37.	36.	36.	36.	36.	36.
Idaho	36.	36.	37.	37.	37.	37.	37.
Nevada	38.	38.	38.	38.	38.	38.	38.
Arkansas	39.	39.	39.	39.	39.	39.	39.
Mississippi	40.	40.	40.	41.	41.	40.	40.
Rhode Island	41.	42.	42.	42.	42.	42.	41.
Delaware	42.	41.	41.	40.	40.	41.	42.
Maine	44.	46.	45.	44.	44.	43.	43.
West Virginia	43.	43.	43.	43.	43.	44.	44.
Hawaii	45.	44.	44.	45.	45.	45.	45.
Vermont	46.	45.	46.	46.	46.	46.	46.
Montana	47.	47.	47.	47.	48.	47.	47.
North Dakota	48.	48.	48.	48.	47.	48.	48.
Alaska	49.	49.	49.	49.	49.	49.	49.
South Dakota	50.	50.	50.	50.	50.	50.	50.
Wyoming	51.	51.	51.	51.	51.	51.	51.

Sources: EMSI | U.S. Bureau of Labor Statistics

TECH WORKERS AS A PERCENT OF WORKFORCE, 2016

Rank	State	Tech as % of Total Workforce	Tech as % of Private Sector Workforce
	United States	**4.4%**	**5.2%**
1.	Massachusetts	8.7%	9.9%
2.	Colorado	7.8%	9.3%
3.	Virginia	7.7%	9.5%
4.	California	7.2%	8.4%
5.	Washington	7.1%	8.6%
6.	Maryland	7.0%	8.6%
7.	New Hampshire	6.5%	7.5%
8.	Utah	6.4%	7.6%
9.	New Mexico	5.9%	7.5%
10.	New Jersey	5.5%	6.4%
11.	Michigan	5.3%	6.1%
12.	Arizona	5.3%	6.2%
13.	Oregon	5.2%	6.2%
14.	District of Columbia	5.1%	7.5%
15.	Texas	5.1%	6.0%
16.	Minnesota	5.0%	5.8%
17.	Georgia	4.9%	5.8%
18.	Idaho	4.8%	5.8%
19.	North Carolina	4.7%	5.6%
20.	Connecticut	4.5%	5.2%
21.	Vermont	4.4%	5.3%
22.	Delaware	4.3%	5.0%
23.	Rhode Island	4.3%	4.9%
24.	Illinois	4.2%	4.8%
25.	Alabama	4.2%	5.1%
26.	Pennsylvania	4.2%	4.7%
27.	New York	4.2%	4.9%
28.	Missouri	4.1%	4.8%
29.	Florida	3.9%	4.5%
30.	Kansas	3.6%	4.4%
31.	Wisconsin	3.6%	4.2%
32.	Nebraska	3.5%	4.3%
33.	Ohio	3.5%	4.0%
34.	Alaska	3.2%	4.2%
35.	South Carolina	3.2%	3.8%
36.	North Dakota	3.0%	3.6%
37.	Iowa	2.9%	3.5%
38.	Montana	2.9%	3.6%
39.	Indiana	2.8%	3.3%
40.	Kentucky	2.7%	3.3%
41.	Tennessee	2.7%	3.2%
42.	Maine	2.7%	3.2%
43.	South Dakota	2.5%	3.1%
44.	Nevada	2.5%	2.8%
45.	Louisiana	2.4%	2.9%
46.	Hawaii	2.4%	3.0%
47.	Oklahoma	2.3%	2.9%
48.	Arkansas	2.3%	2.7%
49.	West Virginia	2.2%	2.8%
50.	Mississippi	2.0%	2.5%
51.	Wyoming	1.7%	2.3%

TECH AVERAGE ANNUAL WAGES VS. AVERAGE ANNUAL WAGES, 2016

Rank	State	Avg. Tech Sector Wages	Avg. Wages	Wage Differential
	United States	**$108,914**	**$53,129**	**105%**
1.	California	$153,990	$62,025	148.3%
2.	Washington	$134,755	$57,803	133.1%
3.	Oregon	$107,144	$48,987	118.7%
4.	Idaho	$83,418	$39,068	113.5%
5.	Virginia	$112,014	$54,200	106.7%
6.	Arizona	$97,352	$48,049	102.6%
7.	New Mexico	$85,198	$42,479	100.6%
8.	North Carolina	$93,220	$46,735	99.5%
9.	Colorado	$106,935	$54,136	97.5%
10.	Massachusetts	$131,329	$66,792	96.6%
11.	Delaware	$104,440	$53,580	94.9%
12.	New Jersey	$121,075	$62,321	94.3%
13.	Missouri	$86,936	$45,754	90.0%
14.	Georgia	$94,915	$50,110	89.4%
15.	Texas	$102,251	$54,106	89.0%
16.	New Hampshire	$100,190	$53,314	87.9%
17.	Maryland	$107,193	$57,379	86.8%
18.	Vermont	$83,277	$44,602	86.7%
19.	Florida	$86,563	$46,542	86.0%
20.	Alabama	$82,428	$44,419	85.6%
21.	Maine	$77,586	$42,237	83.7%
22.	Pennsylvania	$95,630	$52,089	83.6%
23.	Utah	$81,364	$44,632	82.3%
24.	Kansas	$79,350	$43,776	81.3%
25.	South Carolina	$76,589	$42,382	80.7%
26.	Nevada	$83,193	$46,078	80.5%
27.	Minnesota	$95,939	$53,613	78.9%
28.	Illinois	$99,499	$56,235	76.9%
29.	Michigan	$89,159	$50,443	76.8%
30.	Iowa	$77,605	$44,361	74.9%
31.	New York	$118,409	$67,854	74.5%
32.	Wisconsin	$79,521	$45,590	74.4%
33.	Hawaii	$81,629	$47,498	71.9%
34.	Nebraska	$73,931	$43,091	71.6%
35.	Tennessee	$80,244	$46,881	71.2%
36.	Montana	$68,673	$40,263	70.6%
37.	Ohio	$80,189	$47,259	69.7%
38.	Indiana	$74,141	$44,081	68.2%
39.	Arkansas	$69,345	$41,247	68.1%
40.	Mississippi	$63,183	$37,883	66.8%
41.	Louisiana	$75,163	$45,639	64.7%
42.	Rhode Island	$82,685	$50,665	63.2%
43.	Connecticut	$105,548	$65,773	60.5%
44.	West Virginia	$66,400	$41,513	59.9%
45.	North Dakota	$78,576	$49,354	59.2%
46.	Kentucky	$69,258	$43,549	59.0%
47.	Oklahoma	$69,718	$43,894	58.8%
48.	South Dakota	$61,947	$40,511	52.9%
49.	Alaska	$79,579	$54,243	46.7%
50.	Wyoming	$63,899	$45,573	40.2%
51.	District of Columbia	$113,592	$88,378	28.5%

Sources: EMSI | U.S. Bureau of Labor Statistics

TECH EMPLOYMENT PERCENT CHANGE 2015 - 2016

Rank	State	Percent Change 2015-2016
	U.S. Tech Sector	**2.7%**
	U.S. Overall Economy	**0.9%**
	U.S. Private Sector	**1.0%**
1.	Utah	6.0%
2.	North Carolina	5.9%
3.	Michigan	5.1%
4.	Washington	4.9%
5.	Montana	4.5%
6.	California	4.3%
7.	Wisconsin	4.0%
8.	Oregon	3.9%
9.	South Dakota	3.9%
10.	Colorado	3.5%
11.	South Carolina	3.3%
12.	Georgia	3.3%
13.	Massachusetts	3.2%
14.	Florida	3.1%
15.	New York	3.1%
16.	Missouri	3.0%
17.	Ohio	2.8%
18.	Arkansas	2.7%
19.	Nevada	2.7%
20.	Connecticut	2.6%
21.	Nebraska	2.5%
22.	Pennsylvania	2.2%
23.	Indiana	2.1%
24.	New Hampshire	2.1%
25.	Texas	1.9%
26.	Arizona	1.9%
27.	Idaho	1.8%
28.	Minnesota	1.6%
29.	Virginia	1.4%
30.	Illinois	1.2%
31.	Alabama	1.1%
32.	Maine	1.1%
33.	New Jersey	0.9%
34.	Maryland	0.7%
35.	District of Columbia	0.4%
36.	New Mexico	0.3%
37.	Hawaii	-0.3%
38.	North Dakota	-0.4%
39.	Rhode Island	-0.6%
40.	Louisiana	-0.7%
41.	Tennessee	-0.7%
42.	West Virginia	-0.8%
43.	Kentucky	-0.8%
44.	Oklahoma	-1.1%
45.	Vermont	-1.1%
46.	Kansas	-1.7%
47.	Iowa	-1.8%
48.	Mississippi	-1.9%
49.	Alaska	-2.2%
50.	Wyoming	-3.6%
51.	Delaware	-9.6%

TECH EMPLOYMENT NUMERIC CHANGE 2015 - 2016

Rank	State	Numeric Change 2015-2016
	U.S. Tech Sector	**182,226**
	U.S. Overall Economy	**1,293,100**
	U.S. Private Sector	**1,208,469**
1.	California	48,578
2.	New York	11,210
3.	North Carolina	11,095
4.	Texas	11,061
5.	Michigan	10,734
6.	Washington	10,626
7.	Florida	9,586
8.	Massachusetts	9,441
9.	Colorado	6,731
10.	Georgia	6,603
11.	Ohio	5,068
12.	Pennsylvania	5,038
13.	Utah	4,924
14.	Virginia	4,145
15.	Wisconsin	3,909
16.	Oregon	3,550
17.	Missouri	3,233
18.	Illinois	2,973
19.	Arizona	2,545
20.	Minnesota	2,226
21.	South Carolina	1,983
22.	New Jersey	1,941
23.	Connecticut	1,903
24.	Indiana	1,771
25.	Maryland	1,335
26.	Alabama	875
27.	New Hampshire	864
28.	Nebraska	825
29.	Nevada	804
30.	Arkansas	702
31.	Idaho	566
32.	Montana	563
33.	South Dakota	394
34.	Maine	176
35.	District of Columbia	155
36.	New Mexico	139
37.	Hawaii	-47
38.	North Dakota	-53
39.	Rhode Island	-119
40.	West Virginia	-124
41.	Vermont	-151
42.	Wyoming	-178
43.	Alaska	-234
44.	Louisiana	-350
45.	Oklahoma	-388
46.	Kentucky	-423
47.	Mississippi	-438
48.	Tennessee	-582
49.	Iowa	-834
50.	Kansas	-841
51.	Delaware	-1984

Sources: EMSI | U.S. Bureau of Labor Statistics

TOTAL TECH OCCUPATION JOBS

Rank	State	2016
	United States	**7,289,872**
1.	California	1,029,866
2.	Texas	626,335
3.	New York	390,784
4.	Florida	318,017
5.	Illinois	285,452
6.	Virginia	279,512
7.	Michigan	271,865
8.	Ohio	270,215
9.	Pennsylvania	268,191
10.	Washington	235,959
11.	Massachusetts	234,726
12.	Georgia	219,556
13.	New Jersey	212,523
14.	North Carolina	205,723
15.	Maryland	183,257
16.	Minnesota	170,289
17.	Colorado	167,384
18.	Arizona	153,670
19.	Wisconsin	148,327
20.	Missouri	134,438
21.	Indiana	131,374
22.	Tennessee	109,414
23.	Oregon	98,997
24.	Alabama	93,726
25.	Connecticut	93,033
26.	South Carolina	80,269
27.	Utah	75,848
28.	Kentucky	64,462
29.	Kansas	63,415
30.	Oklahoma	63,179
31.	Iowa	62,540
32.	District of Columbia	55,939
33.	Louisiana	52,017
34.	Arkansas	42,139
35.	Nebraska	42,135
36.	New Hampshire	39,348
37.	New Mexico	36,882
38.	Nevada	35,069
39.	Mississippi	31,521
40.	Idaho	29,006
41.	Rhode Island	23,536
42.	Maine	23,241
43.	Delaware	21,533
44.	West Virginia	19,527
45.	Hawaii	19,449
46.	Vermont	15,374
47.	South Dakota	14,203
48.	Montana	14,065
49.	North Dakota	13,906
50.	Alaska	11,492
51.	Wyoming	7,146

TECH OCCUPATIONS WITHIN THE TECH INDUSTRY, 2016

(ranked by concentration of tech occupations)

Rank	State	Tech Occupational Jobs in Tech Industry	Total Tech Industry Jobs	Tech Occ. Jobs as a Percent
	United States	**3,150,699**	**6,,893,362**	**45.7%**
1.	Virginia	156734	291,312	53.8%
2.	Washington	116,915	226,452	51.6%
3.	Vermont	6,814	13,376	50.9%
4.	Maryland	91,420	182,539	50.1%
5.	Minnesota	69,204	140,970	49.1%
6.	Rhode Island	9,870	20,189	48.9%
7.	Alabama	38,649	79,619	48.5%
8.	Oregon	46,149	95,307	48.4%
9.	Arizona	67,354	139,439	48.3%
10.	District of Columbia	18,527	38,485	48.1%
11.	New Hampshire	19,906	41,846	47.6%
12.	Colorado	93,190	196,651	47.4%
13.	Nebraska	16,020	34,220	46.8%
14.	New Jersey	100389	214,737	46.7%
15.	California	554,157	1,186,471	46.7%
16.	Michigan	102,726	221,994	46.3%
17.	Wisconsin	46,985	101,542	46.3%
18.	Georgia	95,934	207,865	46.2%
19.	Ohio	84,882	183,989	46.1%
20.	Missouri	51,386	112,073	45.9%
21.	Massachusetts	137,204	300,632	45.6%
22.	Iowa	20,508	45,068	45.5%
23.	Texas	269,594	592,960	45.5%
24.	Arkansas	12,196	26,900	45.3%
25.	Connecticut	33,702	75,096	44.9%
26.	Indiana	37,560	84,382	44.5%
27.	North Carolina	86834	197,880	43.9%
28.	Kansas	21,748	49,762	43.7%
29.	Illinois	107081	245,674	43.6%
30.	Delaware	8,151	18,752	43.5%
31.	Maine	6,979	16,190	43.1%
32.	Oklahoma	15,640	36,336	43.0%
33.	Utah	37309	87,234	42.8%
34.	Montana	5,637	13,201	42.7%
35.	Florida	134,421	318,343	42.2%
36.	Kentucky	21,412	50,793	42.2%
37.	Pennsylvania	100,156	237,664	42.1%
38.	New York	158,831	377,736	42.0%
39.	Idaho	13,637	32,802	41.6%
40.	South Dakota	4,327	10,595	40.8%
41.	South Carolina	25,152	62,360	40.3%
42.	Tennessee	31255	77,683	40.2%
43.	Hawaii	6,131	15,380	39.9%
44.	Wyoming	1,912	4,820	39.7%
45.	North Dakota	4,980	12,578	39.6%
46.	New Mexico	18,377	47,252	38.9%
47.	Mississippi	8,548	22,261	38.4%
48.	West Virginia	5,701	15,460	36.9%
49.	Nevada	11,229	31,003	36.2%
50.	Alaska	3,731	10,610	35.2%
51.	Louisiana	16,406	46,877	35.0%

Sources: EMSI | U.S. Bureau of Labor Statistics

CYBERSTATES RANKINGS BY SELF-EMPLOYED AND SOLE PROPRIETORS

Rank	State	Tech Industry Workers Employed at Firms with Payroll	Self-Employed or Sole Proprietor Tech Workers	Total Employer Firm + Non-Employer Firm Workers	Self-Employed as % of Total
1.	Wyoming	4,820	1,723	6,543	26.3%
2.	Nevada	31,003	11,062	42,065	26.3%
3.	Hawaii	15,380	4,042	19,422	20.8%
4.	Montana	13,201	3,388	16,589	20.4%
5.	Tennessee	77,683	19,028	96,711	19.7%
6.	Oklahoma	36,336	8,833	45,169	19.6%
7.	Maine	16,190	3,896	20,086	19.4%
8.	Florida	318,343	75,130	393,473	19.1%
9.	Mississippi	22,261	5,063	27,324	18.5%
10.	Louisiana	46,877	9,574	56,451	17.0%
11.	South Carolina	62,360	12,442	74,802	16.6%
12.	Arkansas	26,900	5,227	32,127	16.3%
13.	Georgia	207,865	40,173	248,038	16.2%
14.	Connecticut	75,096	14,202	89,298	15.9%
15.	Alaska	10,610	1,999	12,609	15.9%
16.	West Virginia	15,460	2,911	18,371	15.8%
17.	South Dakota	10,595	1,960	12,555	15.6%
18.	New Jersey	214,737	39,365	254,102	15.5%
19.	Indiana	84,382	15,271	99,653	15.3%
20.	Oregon	95,307	17,207	112,514	15.3%
21.	Delaware	18,752	3,351	22,103	15.2%
22.	Vermont	13,376	2,365	15,741	15.0%
23.	Idaho	32,802	5,741	38,543	14.9%
24.	Kentucky	50,793	8,814	59,607	14.8%
25.	Ohio	183,989	31,774	215,763	14.7%
26.	New York	377,736	63,978	441,714	14.5%
27.	Kansas	49,762	8,307	58,069	14.3%
28.	Arizona	139,439	23,239	162,678	14.3%
29.	Utah	87,234	14,502	101,736	14.3%
30.	Rhode Island	20,189	3,293	23,482	14.0%
31.	Texas	592,960	95,241	688,201	13.8%
32.	New Hampshire	41,846	6,606	48,452	13.6%
33.	Iowa	45,068	6,937	52,005	13.3%
34.	North Carolina	197,880	30,364	228,244	13.3%
35.	Maryland	182,539	27,812	210,351	13.2%
36.	Illinois	245,674	36,870	282,544	13.0%
37.	Wisconsin	101,542	15,192	116,734	13.0%
38.	California	1,186,471	175,717	1,362,188	12.9%
39.	Pennsylvania	237,664	35,126	272,790	12.9%
40.	Colorado	196,651	28,757	225,408	12.8%
41.	Alabama	79,619	11,268	90,887	12.4%
42.	Missouri	112,073	15,364	127,437	12.1%
43.	Nebraska	34,220	4,636	38,856	11.9%
44.	Washington	226,452	29,030	255,482	11.4%
45.	Michigan	221,994	28,331	250,325	11.3%
46.	Minnesota	140,970	16,701	157,671	10.6%
47.	New Mexico	47,252	5,542	52,794	10.5%
48.	North Dakota	12,578	1,465	14,043	10.4%
49.	Virginia	291,312	31,020	322,332	9.6%
50.	Massachusetts	300,632	30,633	331,265	9.2%
51.	District of Columbia	38,485	3,439	41,924	8.2%
	TOTAL	**6,893,362**	**1,093,912**	**7,987,274**	**13.7%**

Sources: EMSI | U.S. Bureau of Labor Statistics

CYBERSTATES INNOVATION RANKING: TECH PATENTS GRANTED BY STATE

SUMMATION OF PATENTS GRANTED BY THE U.S. PATENT AND TRADEMARK OFFICE IN THE FOLLOWING CATEGORIES: ELECTRICAL COMPUTERS, DIGITAL PROCESSING AND DATA SYSTEMS, INFORMATION SECURITY, ERROR/FAULT HANDLING, SEMICONDUCTOR DEVICES, AND TELECOMMUNICATIONS

Rank	State	2014	2015	Numeric Change	Percent Change
1.	California	22,417	20,397	-2,020	-9%
2.	Texas	4,538	3,912	-626	-14%
3.	Washington	4,183	3,683	-500	-12%
4.	New York	3,902	3,526	-376	-10%
5.	Massachusetts	2,632	2,269	-363	-14%
6.	New Jersey	2,448	1,938	-510	-21%
7.	North Carolina	1,580	1,500	-80	-5%
8.	Illinois	1,548	1,325	-223	-14%
9.	Michigan	1,199	1,168	-31	-3%
10.	Minnesota	1,042	1,051	9	1%
11.	Oregon	1,141	1,040	-101	-9%
12.	Arizona	1,062	1,036	-26	-2%
13.	Florida	1,257	978	-279	-22%
14.	Colorado	1,175	969	-206	-18%
15.	Virginia	988	911	-77	-8%
16.	Georgia	1,188	902	-286	-24%
17.	Pennsylvania	953	662	-291	-31%
18.	Maryland	621	512	-109	-18%
19.	Kansas	538	487	-51	-9%
20.	Idaho	561	459	-102	-18%
21.	Ohio	488	408	-80	-16%
22.	Connecticut	484	366	-118	-24%
23.	Utah	395	361	-34	-9%
24.	Vermont	357	318	-39	-11%
25.	New Hampshire	306	264	-42	-14%
26.	Wisconsin	276	234	-42	-15%
27.	Missouri	335	216	-119	-36%
28.	Indiana	281	202	-79	-28%
29.	Iowa	210	175	-35	-17%
30.	New Mexico	123	139	16	13%
31.	Nevada	174	126	-48	-28%
32.	South Carolina	95	115	20	21%
33.	Nebraska	107	98	-9	-8%
34.	Alabama	128	95	-33	-26%
35.	Tennessee	111	88	-23	-21%
36.	Kentucky	77	72	-5	-6%
37.	Delaware	73	67	-6	-8%
38.	Rhode Island	56	51	-5	-9%
39.	Maine	58	41	-17	-29%
40.	Oklahoma	39	36	-3	-8%
41.	Wyoming	50	35	-15	-30%
42.	Arkansas	25	34	9	36%
43.	District of Columbia	74	33	-41	-55%
44.	North Dakota	28	33	5	18%
45.	Hawaii	40	28	-12	-30%
46.	Louisiana	43	24	-19	-44%
47.	West Virginia	20	15	-5	-25%
48.	Montana	13	14	1	8%
49.	Mississippi	15	11	-4	-27%
50.	South Dakota	9	9	0	0%
51.	Alaska	5	1	-4	-80%
	TOTAL	**59,468**	**52,434**	**-7,034**	**-12%**

Source: U.S. Patent and Trademark Office

CYBERSTATES INNOVATION RANKINGS: NEW TECH STARTUPS AND NEW TECH BUSINESS ESTABLISHMENTS

SUMMATION OF NEW TECH STARTUPS AND NEW TECH BUSINESS ESTABLISHMENTS IN THE TECH SECTOR NAICS CATEGORIES COVERED BY CYBERSTATES

Rank	State	2014	2015	Numeric Change	Percent Change
1.	California	6,325	6,958	633	10%
2.	Texas	2,500	3,163	663	27%
3.	Florida	2,720	3,154	434	16%
4.	New York	2,010	2,309	299	15%
5.	Virginia	1,453	1,589	136	9%
6.	Georgia	1,197	1,241	44	4%
7.	New Jersey	1,028	1,241	213	21%
8.	Illinois	946	1,104	158	17%
9.	Maryland	1,009	1,040	31	3%
10.	Colorado	931	1,005	74	8%
11.	Washington	875	955	80	9%
12.	Massachusetts	925	943	18	2%
13.	North Carolina	801	908	107	13%
14.	Ohio	697	851	154	22%
15.	Pennsylvania	741	837	96	13%
16.	Michigan	793	800	7	1%
17.	Arizona	689	783	94	14%
18.	Minnesota	457	485	28	6%
19.	Utah	420	469	49	12%
20.	Tennessee	380	464	84	22%
21.	Oregon	375	454	79	21%
22.	Indiana	388	436	48	12%
23.	Missouri	378	405	27	7%
24.	Nevada	335	369	34	10%
25.	Wisconsin	299	358	59	20%
26.	South Carolina	307	334	27	9%
27.	Connecticut	332	327	-5	-2%
28.	Louisiana	241	303	62	26%
29.	Alabama	264	292	28	11%
30.	District of Columbia	210	280	70	33%
31.	Kentucky	225	233	8	4%
32.	Oklahoma	214	233	19	9%
33.	Delaware	191	213	22	12%
34.	New Mexico	154	188	34	22%
35.	Iowa	144	181	37	26%
36.	Kansas	172	174	2	1%
37.	Mississippi	117	151	34	29%
38.	Idaho	131	150	19	15%
39.	Arkansas	118	143	25	21%
40.	Hawaii	221	129	-92	-42%
41.	Nebraska	94	121	27	29%
42.	New Hampshire	128	110	-18	-14%
43.	Wyoming	89	94	5	6%
44.	Rhode Island	70	88	18	26%
45.	Montana	61	84	23	38%
46.	West Virginia	76	79	3	4%
47.	Maine	75	78	3	4%
48.	North Dakota	38	53	15	39%
49.	Alaska	59	52	-7	-12%
50.	Vermont	46	52	6	13%
51.	South Dakota	41	45	4	10%
	TOTAL	**32,490**	**36,508**	**4,018**	**12%**

Source: Hoovers

INNVATION MEASURES AND INNOVATION SCORE PER CAPITA

THE INNOVATION SCORE IS BASED ON TECH PATENTS GRANTED AND TECH STARTUPS/NEW TECH BUSINESS ESTABLISHMENTS. IT IS CALCULATED AS A PER CAPITA SCORE BASED ON THE STATE'S POPULATION.

Rank	Tech Patents Granted	Rank	Tech Startups and New Tech Business Establishments	Rank	Innovation Score Per Capita
1.	California	1.	California	1.	California
2.	Texas	2.	Texas	2.	Massachusetts
3.	Florida	3.	Florida	3.	Washington
4.	New York	4.	New York	4.	Colorado
5.	Virginia	5.	Virginia	5.	New Jersey
6.	Georgia	6.	Georgia	6.	Virginia
7.	New Jersey	7.	New Jersey	7.	Utah
8.	Illinois	8.	Illinois	8.	Oregon
9.	Maryland	9.	Maryland	9.	District of Columbia
10.	Colorado	10.	Colorado	10.	New York
11.	Washington	11.	Washington	11.	Idaho
12.	Massachusetts	12.	Massachusetts	12.	Maryland
13.	North Carolina	13.	North Carolina	13.	Delaware
14.	Ohio	14.	Ohio	14.	Arizona
15.	Pennsylvania	15.	Pennsylvania	15.	Vermont
16.	Michigan	16.	Michigan	16.	Texas
17.	Arizona	17.	Arizona	17.	Wyoming
18.	Minnesota	18.	Minnesota	18.	Minnesota
19.	Utah	19.	Utah	19.	Georgia
20.	Tennessee	20.	Tennessee	20.	North Carolina
21.	Oregon	21.	Oregon	21.	New Hampshire
22.	Indiana	22.	Indiana	22.	Connecticut
23.	Missouri	23.	Missouri	23.	Florida
24.	Nevada	24.	Nevada	24.	Illinois
25.	Wisconsin	25.	Wisconsin	25.	Nevada
26.	South Carolina	26.	South Carolina	26.	New Mexico
27.	Connecticut	27.	Connecticut	27.	Michigan
28.	Louisiana	28.	Louisiana	28.	Kansas
29.	Alabama	29.	Alabama	29.	Rhode Island
30.	District of Columbia	30.	District of Columbia	30.	Hawaii
31.	Kentucky	31.	Kentucky	31.	Pennsylvania
32.	Oklahoma	32.	Oklahoma	32.	North Dakota
33.	Delaware	33.	Delaware	33.	Ohio
34.	New Mexico	34.	New Mexico	34.	Nebraska
35.	Iowa	35.	Iowa	35.	Missouri
36.	Kansas	36.	Kansas	36.	Montana
37.	Mississippi	37.	Mississippi	37.	Iowa
38.	Idaho	38.	Idaho	38.	South Carolina
39.	Arkansas	39.	Arkansas	39.	Indiana
40.	Hawaii	40.	Hawaii	40.	Wisconsin
41.	Nebraska	41.	Nebraska	41.	Tennessee
42.	New Hampshire	42.	New Hampshire	42.	Maine
43.	Wyoming	43.	Wyoming	43.	Alaska
44.	Rhode Island	44.	Rhode Island	44.	Alabama
45.	Montana	45.	Montana	45.	Louisiana
46.	West Virginia	46.	West Virginia	46.	Kentucky
47.	Maine	47.	Maine	47.	Oklahoma
48.	North Dakota	48.	North Dakota	48.	South Dakota
49.	Alaska	49.	Alaska	49.	Arkansas
50.	Vermont	50.	Vermont	50.	Mississippi
51.	South Dakota	51.	South Dakota	51.	West Virginia

TECH SECTOR GENDER DISTRIBUTION, 2016

Rank	State	Number of Tech Sector Male Workers	Number of Tech Sector Female Workers
	United States	**4,491,468**	**2,285,119**
1.	California	765,603	391,117
2.	Texas	394,755	189,927
3.	New York	237,846	131,970
4.	Florida	208,442	104,937
5.	Massachusetts	194,523	100,504
6.	Virginia	193,049	96,858
7.	Illinois	160,817	81,138
8.	Pennsylvania	154,653	80,077
9.	Washington	148,854	72,144
10.	Michigan	148,245	66,215
11.	New Jersey	138,371	74,723
12.	Colorado	132,097	60,819
13.	Georgia	131,262	72,806
14.	Ohio	122,531	58,960
15.	North Carolina	121,373	70,202
16.	Maryland	119,265	62,552
17.	Arizona	95,047	42,749
18.	Minnesota	89,958	49,473
19.	Missouri	70,027	39,935
20.	Oregon	65,383	27,890
21.	Wisconsin	63,156	36,284
22.	Utah	61,201	23,359
23.	Indiana	54,426	28,640
24.	Alabama	53,157	26,029
25.	Tennessee	50,504	26,335
26.	Connecticut	48,102	25,812
27.	South Carolina	39,520	21,486
28.	Kentucky	33,177	17,300
29.	Kansas	32,833	17,742
30.	Louisiana	32,267	14,351
31.	New Mexico	31,667	15,596
32.	Iowa	28,714	16,303
33.	New Hampshire	27,469	13,760
34.	Oklahoma	24,357	12,155
35.	Idaho	23,045	9,296
36.	District of Columbia	23,004	14,783
37.	Nebraska	21,514	12,010
38.	Nevada	21,033	9,413
39.	Arkansas	17,165	9,549
40.	Mississippi	13,714	8,347
41.	Rhode Island	12,809	7,323
42.	Delaware	12,408	6,828
43.	West Virginia	10,657	4,860
44.	Maine	10,440	5,556
45.	Hawaii	9,971	5,371
46.	Vermont	9,402	4,096
47.	Montana	8,454	4,494
48.	North Dakota	8,401	4,075
49.	Alaska	6,996	3,669
50.	South Dakota	6,314	3,942
51.	Wyoming	3,493	1,361

TECH SECTOR GENDER RATIOS, 2016

Rank	State	Percent of Tech Sector Male Workers	Percent of Tech Sector Female Workers
	United States	**66.3%**	**33.7%**
1.	District of Columbia	60.9%	39.1%
2.	South Dakota	61.6%	38.4%
3.	Mississippi	62.2%	37.8%
4.	North Carolina	63.4%	36.6%
5.	Wisconsin	63.5%	36.5%
6.	Rhode Island	63.6%	36.4%
7.	Missouri	63.7%	36.3%
8.	Iowa	63.8%	36.2%
9.	Nebraska	64.2%	35.8%
10.	Arkansas	64.3%	35.7%
11.	New York	64.3%	35.7%
12.	Georgia	64.3%	35.7%
13.	Delaware	64.5%	35.5%
14.	Minnesota	64.5%	35.5%
15.	South Carolina	64.8%	35.2%
16.	Kansas	64.9%	35.1%
17.	New Jersey	64.9%	35.1%
18.	Hawaii	65.0%	35.0%
19.	Connecticut	65.1%	34.9%
20.	Maine	65.3%	34.7%
21.	Montana	65.3%	34.7%
22.	Indiana	65.5%	34.5%
23.	Maryland	65.6%	34.4%
24.	Alaska	65.6%	34.4%
25.	Kentucky	65.7%	34.3%
26.	Tennessee	65.7%	34.3%
27.	Pennsylvania	65.9%	34.1%
28.	Massachusetts	65.9%	34.1%
29.	California	66.2%	33.8%
30.	Illinois	66.5%	33.5%
31.	Florida	66.5%	33.5%
32.	Virginia	66.6%	33.4%
33.	New Hampshire	66.6%	33.4%
34.	Oklahoma	66.7%	33.3%
35.	New Mexico	67.0%	33.0%
36.	Alabama	67.1%	32.9%
37.	North Dakota	67.3%	32.7%
38.	Washington	67.4%	32.6%
39.	Ohio	67.5%	32.5%
40.	Texas	67.5%	32.5%
41.	Colorado	68.5%	31.5%
42.	West Virginia	68.7%	31.3%
43.	Arizona	69.0%	31.0%
44.	Nevada	69.1%	30.9%
45.	Michigan	69.1%	30.9%
46.	Louisiana	69.2%	30.8%
47.	Vermont	69.7%	30.3%
48.	Oregon	70.1%	29.9%
49.	Idaho	71.3%	28.7%
50.	Wyoming	71.9%	28.0%
51.	Utah	72.4%	27.6%

Source: EMSI | U.S. Bureau of Labor Statistics
Minor differences may exist between the totals on this page and industry totals presented throughout this report

TECH OCCUPATION GENDER DISTRIBUTION, 2016

Rank	State	Count of Tech Occupation Male Workers	Count of Tech Occupation Female Workers
	United States	**5,702,058**	**1,587,815**
1.	California	801,808	228,057
2.	Texas	493,482	132,853
3.	New York	307,362	83,422
4.	Florida	250,745	67,273
5.	Virginia	215,214	64,299
6.	Illinois	221,801	63,652
7.	Pennsylvania	209,751	58,440
8.	Ohio	212,784	57,430
9.	Georgia	167,052	52,504
10.	Michigan	219,674	52,190
11.	Massachusetts	183,802	50,924
12.	Washington	185,300	50,660
13.	New Jersey	164,626	47,897
14.	North Carolina	158,560	47,163
15.	Maryland	140,062	43,195
16.	Minnesota	130,036	40,253
17.	Wisconsin	113,858	34,469
18.	Colorado	133,113	34,270
19.	Arizona	120,347	33,324
20.	Missouri	103,930	30,508
21.	Indiana	102,995	28,379
22.	Tennessee	85,321	24,094
23.	Oregon	78,996	20,001
24.	Connecticut	73,354	19,679
25.	Alabama	74,360	19,365
26.	South Carolina	62,350	17,918
27.	District of Columbia	41,482	14,458
28.	Iowa	48,311	14,229
29.	Kentucky	51,166	13,295
30.	Oklahoma	50,057	13,122
31.	Utah	62,946	12,901
32.	Kansas	50,641	12,773
33.	Arkansas	32,177	9,962
34.	Nebraska	32,180	9,954
35.	Louisiana	42,466	9,550
36.	New Hampshire	30,461	8,886
37.	Mississippi	24,157	7,364
38.	New Mexico	29,855	7,028
39.	Nevada	28,049	7,021
40.	Rhode Island	18,104	5,431
41.	Idaho	23,614	5,392
42.	Delaware	16,254	5,279
43.	Maine	18,351	4,890
44.	Hawaii	15,665	3,784
45.	West Virginia	15,765	3,762
46.	South Dakota	10,651	3,552
47.	Vermont	12,263	3,111
48.	Montana	10,959	3,107
49.	North Dakota	10,943	2,964
50.	Alaska	9,365	2,126
51.	Wyoming	5,631	1,514

TECH OCCUPATION GENDER RATIOS, 2016

Rank	State	% of Tech Occupation Male Workers	% of Tech Occupation Female Workers
	United States	**78.2%**	**21.8%**
1.	District of Columbia	74.2%	25.8%
2.	South Dakota	75.0%	25.0%
3.	Delaware	75.5%	24.5%
4.	Georgia	76.1%	23.9%
5.	Arkansas	76.4%	23.6%
6.	Minnesota	76.4%	23.6%
7.	Nebraska	76.4%	23.6%
8.	Maryland	76.4%	23.6%
9.	Mississippi	76.6%	23.4%
10.	Wisconsin	76.8%	23.2%
11.	Rhode Island	76.9%	23.1%
12.	Virginia	77.0%	23.0%
13.	North Carolina	77.1%	22.9%
14.	Iowa	77.2%	22.8%
15.	Missouri	77.3%	22.7%
16.	New Hampshire	77.4%	22.6%
17.	New Jersey	77.5%	22.5%
18.	South Carolina	77.7%	22.3%
19.	Illinois	77.7%	22.3%
20.	California	77.9%	22.1%
21.	Montana	77.9%	22.1%
22.	Tennessee	78.0%	22.0%
23.	Pennsylvania	78.2%	21.8%
24.	Massachusetts	78.3%	21.7%
25.	Arizona	78.3%	21.7%
26.	Indiana	78.4%	21.6%
27.	Washington	78.5%	21.5%
28.	New York	78.7%	21.3%
29.	North Dakota	78.7%	21.3%
30.	Ohio	78.7%	21.3%
31.	Texas	78.8%	21.2%
32.	Wyoming	78.8%	21.2%
33.	Florida	78.8%	21.2%
34.	Connecticut	78.8%	21.2%
35.	Maine	79.0%	21.0%
36.	Oklahoma	79.2%	20.8%
37.	Alabama	79.3%	20.7%
38.	Kentucky	79.4%	20.6%
39.	Colorado	79.5%	20.5%
40.	Vermont	79.8%	20.2%
41.	Oregon	79.8%	20.2%
42.	Kansas	79.9%	20.1%
43.	Nevada	80.0%	20.0%
44.	Hawaii	80.5%	19.5%
45.	West Virginia	80.7%	19.3%
46.	Michigan	80.8%	19.2%
47.	New Mexico	80.9%	19.1%
48.	Idaho	81.4%	18.6%
49.	Alaska	81.5%	18.5%
50.	Louisiana	81.6%	18.4%
51.	Utah	83.0%	17.0%

Source: EMSI | U.S. Bureau of Labor Statistics
Minor differences may exist between the totals on this page and industry totals presented throughout this report

TECH ESTABLISHMENTS PERCENT CHANGE 2015 - 2016

Rank	State	Percent Change 2015-2016
	United States	**1.8%**
	U.S. Private Sector	**0.9%**
1.	Oregon	4.5%
2.	South Carolina	3.9%
3.	New Jersey	3.8%
4.	Mississippi	3.8%
5.	District of Columbia	3.7%
6.	Hawaii	3.7%
7.	Kansas	3.3%
8.	Vermont	3.1%
9.	Louisiana	3.0%
10.	Idaho	3.0%
11.	Wisconsin	3.0%
12.	Virginia	2.9%
13.	Washington	2.6%
14.	Texas	2.6%
15.	Maine	2.6%
16.	Georgia	2.3%
17.	Colorado	2.3%
18.	Florida	2.3%
19.	Massachusetts	2.2%
20.	Arkansas	2.2%
21.	West Virginia	2.0%
22.	Montana	2.0%
23.	Utah	1.9%
24.	North Carolina	1.9%
25.	Pennsylvania	1.9%
26.	Connecticut	1.8%
27.	Alabama	1.8%
28.	Tennessee	1.8%
29.	Delaware	1.8%
30.	Indiana	1.7%
31.	Arizona	1.6%
32.	Ohio	1.6%
33.	California	1.5%
34.	Rhode Island	1.3%
35.	South Dakota	1.3%
36.	New Mexico	1.3%
37.	Maryland	1.1%
38.	New Hampshire	1.1%
39.	Missouri	1.1%
40.	Iowa	1.0%
41.	Kentucky	0.9%
42.	Nevada	0.8%
43.	Michigan	0.7%
44.	Nebraska	0.5%
45.	Illinois	0.4%
46.	Alaska	0.3%
47.	Wyoming	0.1%
48.	Oklahoma	-0.2%
49.	Minnesota	-0.3%
50.	North Dakota	-0.5%
51.	New York	-1.1%

TECH ESTABLISHMENTS NUMERIC CHANGE 2015 - 2016

Rank	State	Numeric Change 2015-2016
	United States	**8,675**
	U.S. Private Sector	**87,315**
1.	Texas	911
2.	California	747
3.	Florida	681
4.	Virginia	596
5.	New Jersey	583
6.	Georgia	417
7.	Colorado	359
8.	Massachusetts	351
9.	Washington	337
10.	North Carolina	309
11.	Oregon	295
12.	Pennsylvania	293
13.	Ohio	239
14.	South Carolina	237
15.	Wisconsin	194
16.	Maryland	165
17.	Kansas	146
18.	Louisiana	144
19.	Arizona	138
20.	Indiana	131
21.	Tennessee	129
22.	District of Columbia	126
23.	Utah	120
24.	Connecticut	117
25.	Mississippi	110
26.	Alabama	103
27.	Illinois	101
28.	Idaho	86
29.	Missouri	84
30.	Hawaii	74
31.	Michigan	73
32.	Arkansas	68
33.	Maine	66
34.	Kentucky	53
35.	Delaware	45
36.	Vermont	45
37.	Iowa	43
38.	New Hampshire	43
39.	Nevada	40
40.	West Virginia	40
41.	Montana	39
42.	New Mexico	38
43.	Rhode Island	33
44.	South Dakota	17
45.	Nebraska	15
46.	Alaska	3
47.	Wyoming	1
48.	North Dakota	-6
49.	Oklahoma	-7
50.	Minnesota	-32
51.	New York	-261

Sources: EMSI | U.S. Bureau of Labor Statistics

TECH GROSS STATE PRODUCT

(in billions)

Rank	State	2016 est.
	United States	**$1,342.3**
1.	California	$312.1
2.	Texas	$117.2
3.	New York	$85.6
4.	Massachusetts	$61.4
5.	Washington	$58.9
6.	Florida	$54.2
7.	Virginia	$51.3
8.	New Jersey	$45.4
9.	Illinois	$43.0
10.	Pennsylvania	$40.1
11.	Georgia	$39.7
12.	Oregon	$39.2
13.	Colorado	$36.2
14.	North Carolina	$32.8
15.	Maryland	$32.0
16.	Michigan	$30.7
17.	Ohio	$27.7
18.	Arizona	$25.1
19.	Minnesota	$24.4
20.	Missouri	$17.3
21.	Wisconsin	$15.4
22.	Connecticut	$13.5
23.	Utah	$12.3
24.	Indiana	$12.1
25.	Tennessee	$11.7
26.	Alabama	$10.9
27.	South Carolina	$9.2
28.	New Hampshire	$7.5
29.	New Mexico	$7.4
30.	Kansas	$7.3
31.	Iowa	$7.0
32.	Louisiana	$6.6
33.	Kentucky	$6.5
34.	District of Columbia	$6.2
35.	Oklahoma	$5.2
36.	Nevada	$5.0
37.	Idaho	$5.0
38.	Nebraska	$4.5
39.	Delaware	$4.3
40.	Arkansas	$3.9
41.	Rhode Island	$3.0
42.	Mississippi	$3.0
43.	Hawaii	$2.6
44.	Maine	$2.3
45.	Alaska	$2.2
46.	West Virginia	$2.2
47.	Vermont	$2.1
48.	North Dakota	$2.0
49.	Montana	$1.7
50.	South Dakota	$1.5
51.	Wyoming	$0.9

TECH GSP AS A PERCENT OF TOTAL STATE PRODUCT

(in billions)

Rank	State	Total Tech GSP	Total GDP/GSP	Tech as a Percent
	United States	**$1,342.3**	**$17,919.7**	**7.5%**
1.	Oregon	$39.2	$217.6	18.0%
2.	Washington	$58.9	$445.4	13.2%
3.	Massachusetts	$61.4	$484.9	12.7%
4.	California	$312.1	$2,481.3	12.6%
5.	Colorado	$36.2	$313.7	11.5%
6.	Virginia	$51.3	$481.1	10.7%
7.	New Hampshire	$7.5	$73.9	10.1%
8.	Maryland	$32.0	$365.4	8.8%
9.	Arizona	$25.1	$290.9	8.6%
10.	Utah	$12.3	$147.5	8.4%
11.	New Jersey	$45.4	$567.7	8.0%
12.	Georgia	$39.7	$497.9	8.0%
13.	New Mexico	$7.4	$93.3	7.9%
14.	Idaho	$5.0	$65.5	7.6%
15.	Minnesota	$24.4	$328.3	7.4%
16.	Texas	$117.2	$1,630.1	7.2%
17.	Vermont	$2.1	$30.0	6.8%
18.	North Carolina	$32.8	$495.4	6.6%
19.	Michigan	$30.7	$468.3	6.6%
20.	Delaware	$4.3	$68.7	6.3%
21.	Florida	$54.2	$888.1	6.1%
22.	New York	$85.6	$1,433.5	6.0%
23.	Missouri	$17.3	$294.5	5.9%
24.	Pennsylvania	$40.1	$709.8	5.7%
25.	Illinois	$43.0	$776.9	5.5%
26.	Alabama	$10.9	$199.7	5.5%
27.	Rhode Island	$3.0	$56.1	5.4%
28.	Connecticut	$13.5	$252.9	5.3%
29.	Wisconsin	$15.4	$302.1	5.1%
30.	District of Columbia	$6.2	$122.1	5.1%
31.	Kansas	$7.3	$149.6	4.9%
32.	South Carolina	$9.2	$201.0	4.6%
33.	Ohio	$27.7	$610.9	4.5%
34.	Alaska	$2.2	$52.7	4.2%
35.	Iowa	$7.0	$174.0	4.0%
36.	Maine	$2.3	$57.3	4.0%
37.	Nebraska	$4.5	$113.3	4.0%
38.	Tennessee	$11.7	$315.9	3.7%
39.	Montana	$1.7	$45.2	3.7%
40.	Indiana	$12.1	$336.1	3.6%
41.	Nevada	$5.0	$139.7	3.6%
42.	North Dakota	$2.0	$55.9	3.5%
43.	Kentucky	$6.5	$193.3	3.4%
44.	Arkansas	$3.9	$118.9	3.3%
45.	Hawaii	$2.6	$80.4	3.3%
46.	South Dakota	$1.5	$47.2	3.2%
47.	West Virginia	$2.2	$74.3	2.9%
48.	Mississippi	$3.0	$105.8	2.8%
49.	Oklahoma	$5.2	$186.0	2.8%
50.	Louisiana	$6.6	$239.3	2.8%
51.	Wyoming	$0.9	$39.9	2.2%

Source: EMSI | U.S. Bureau of Economic Analysis

APPENDIX C – METHODLOGY

CLASSIFICATION SYSTEM

Cyberstates utilizes the North American Industrial Classification System (NAICS) to define the tech industry. The NAICS is a hierarchical system, with six-digit numbers assigned to the most specific industries. The NAICS is constructed around the concept of production and is able to reflect advances in technology, including many new service-oriented businesses. Economic units with similar production processes are classified in the same industry. Because *Cyberstates* analyzes the tech industry by using industry classifications, the report in general focuses on companies and sectors, not individual occupations.

The original *Cyberstates* definition of technology was based on the Standard Industrial Classification (SIC) system. It has evolved as the U.S. government officially converted to the NAICS in 1997. NAICS was devised by the United States, Canada, and Mexico to allow industry analysis across all three nations.

NAICS codes are revised periodically to reflect the emergence of new industry sectors or sub-sectors. The *Cyberstates'* NAICS definition of the tech industry has evolved over the years to reflect these changes. Consequently, the data in this report may not be entirely comparable with previous reports.

For more information on NAICS codes, see the U.S. Census NAICS code site, http://www.census.gov/eos/www/naics/.

TECH INDUSTRY DEFINITION

There are a number of considerations when developing a definition of the technology industry. In some cases, NAICS codes do not perfectly reflect industry dynamics. This can be especially challenging in times of rapid innovation, when new tech sectors emerge in a short period of time. More recently, the degree to which technology has become core to so many industry sectors poses new questions. For example, a technology platform designed to facilitate the online sale of goods may have traditionally been viewed as a retailer, although given the intense use of technology, an argument could be made to classify it as a technology firm.

Conceptually, *Cyberstates* focuses on the sectors involved in making, creating, enabling, integrating, or supporting technology, whether as a product or service. At this time, *Cyberstates* does not include industry sectors categorized primarily as users of technology.

Like previous editions of *Cyberstates*, the tech manufacturing sector includes the entire 334 section of the NAICS codes and coding for space and defense and semiconductor machinery. For clarity and consistency, the Measuring and Control Instruments subsector now includes all the six-digit NAICS codes under 3345. In previous editions of this report, this sector was often subdivided, creating categories that didn't exist in the NAICS categorization.

The IT services sector now covers Computer Systems Design and Computer Training and adds Computer Wholesalers and Computer and Electronics Repair and Maintenance. With this modification, IT Services now encompasses the entire breadth of core services provided.

The Software Publisher sector replaces the previous Software Services, as Computer Systems Design, which often includes customized software services is now part of IT Services. Previously, this sector included both software publishers and computer systems design.

Finally, R&D, Testing, and Engineering Services is similar to previous editions with the one change of moving Computer Training to IT Services. With this change this sector is now more homogeneous around the technical, scientific, and engineers services within the economy.

The U.S. government's NAICS codes do not capture temporary tech workers, as all temporary employees are categorized under NAICS 561320, temporary help services. While there are well over 2 million workers in this industry, the data do not break down how many of these workers are employed by the tech industry.

Cyberstates includes 50 NAICS codes in its definition of the tech industry. Broadly these can be thought of in two broad categories: tech manufacturing and tech services. These industries sufficiently represent the technology industry within the framework provided under the NAICS system.

TECH MANUFACTURING

Computer and Peripheral Equipment

334111 Electronic Computers
334112 Computer Storage Devices
334118 Computer Peripheral Equipment

Communications Equipment

334210 Telephone Apparatus
334220 Radio and TV Broadcasting and Wireless Communications Equipment
334290 Other Communications Equipment

Consumer Electronics

334310 Audio and Video Equipment

Electronic Components

334412 Bare Printed Circuit Boards
334416 Capacitor, Resistor, Coil, Transformer, and Other Inductors
334417 Electronic Connectors
334418 Printed Circuit Assembly
334419 Other Electronic Components

Semiconductors

333242 Semiconductor Machinery
334413 Semiconductor and Related Devices

Measuring and Control Instruments

334510 Electromedical and Electrotherapeutic Apparatus
334511 Search, Detection, Navigation, Guidance, Aeronautical, and Nautical Systems and Instruments
334512 Automatic Environmental Controls
334513 Industrial Process Control Instruments
334514 Totalizing Fluid Meter and Counting Devices
334515 Electricity Measuring and Testing Equipment
334516 Analytical Laboratory Instruments
334517 Irradiation Apparatus
334519 Other Measuring and Controlling Instruments

Reproducing Magnetic and Optical Media

334613 Manufacturing and Reproducing Magnetic and Optical Media
334614 Software and Other Prerecorded Content Reproducing

Space and Defense Systems

336414 Guided Missile and Space Vehicles
336415 Guided Missile and Space Vehicle Propulsion Units and Parts
336419 Other Guided Missile, Space Vehicle Parts, and Auxiliary Equipment

TECH SERVICES

TELECOMMUNICATIONS AND INTERNET SERVICES

Telecommunications

517110 Wired Telecommunication Carriers
517210 Wireless Telecommunication Carriers (except Satellite)
517410 Satellite Telecommunications
517911 Telecommunication Resellers
517919 All Other Telecommunications

Internet Services

518210 Data Processing, Hosting, and Related Services
519130 Internet Publishing and Broadcasting, and Web Search Portals

SOFTWARE

Software Publishers

511210 Software Publishers

IT SERVICES

Computer, Peripheral, and Software Wholesalers

423430 Computer and Computer Peripheral Equipment and Software Merchant Wholesalers

Computer Systems Design and Related Services

541511 Custom Computer Programming
541512 Computer Systems Design
541513 Computer Facilities Management
541519 Other Computer Related Services

Computer Training

611420 Computer Training

Computer and Electronic Repair and Maintenance

811211 Consumer Electronics Repair and Maintenance
811212 Computer and Office Machine Repair and Maintenance
811213 Communication Equipment Repair and Maintenance
811219 Other Electronic and Precision Equipment Repair and Maintenance

ENGINEERING SERVICES, R&D, AND TESTING LABS

Engineering Services

541330 Engineering Services

R&D and Testing Labs

541380 Testing Laboratories
541711 Research and Development in Biotechnology
541712 Research and Development in the Physical, Engineering, and Life Sciences

STANDARD OCCUPATIONAL CODES INCLUDED IN COMPTIA'S DEFINITION OF TECH OCCUPATIONS

IT OCCUPATIONS

11-3021	Computer and Information Systems Managers
15-1111	Computer and Information Research Scientists
15-1121	Computer Systems Analysts
15-1122	Information Security Analysts
15-1131	Computer Programmers
15-1132	Software Developers, Applications
15-1133	Software Developers, Systems Software
15-1134	Web Developers
15-1141	Database Administrators
15-1142	Network and Computer Systems Administrators
15-1143	Computer Network Architects
15-1151	Computer Support Specialists
15-1152	Computer Network Support Specialists
15-1199	Computer Occupations, All Other (includes videogame designer, business intelligence analyst, and others)

ENGINEERING OCCUPATIONS

11-9041	Engineering Managers
17-2011	Aerospace Engineers
17-2031	Biomedical Engineers
17-2061	Computer Hardware Engineers
17-2071	Electrical Engineers
17-2072	Electronics Engineers, Except Computer
17-2112	Industrial Engineers
17-2131	Materials Engineers
17-2141	Mechanical Engineers
17-2199	Engineers, All Other

ENGINEERING AND AUDIO/VIDEO TECHNICIANS

17-3021	Aerospace Engineering and Operations Technicians
17-3023	Electrical and Electronics Engineering Technicians
17-3024	Electro-Mechanical Technicians
17-3026	Industrial Engineering Technicians
17-3027	Mechanical Engineering Technicians
17-3029	Engineering Technicians, Except Drafters, All Other
27-4011	Audio and Video Equipment Technicians
27-4012	Broadcast Technicians
27-4014	Sound Engineering Technicians

COMPUTER OPERATORS

43-9011	Computer Operators

ELECTRICAL, ELECTRONIC, AND COMPUTER INSTALLERS AND REPAIRERS

49-2011	Computer, Automated Teller, and Office Machine Repairers
49-2021	Radio, Cellular, and Tower Equipment Installers and Repairs
49-2022	Telecommunications Equipment Installers and Repairers, Except Line Installers
49-2091	Avionics Technicians
49-2092	Electric Motor, Power Tool, and Related Repairers
49-2093	Electrical and Electronics Installers and Repairers, Transportation Equipment
49-2094	Electrical and Electronics Repairers, Commercial and Industrial Equipment
49-2095	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay
49-2096	Electronic Equipment Installers and Repairers, Motor Vehicles
49-2097	Electronic Home Entertainment Equipment Installers and Repairers
49-2098	Security and Fire Alarm Systems Installers

ELECTRICAL, ELECTRONICS, AND ELECTROMECHANICAL ASSEMBLERS

51-2021	Coil Winders, Tapers, and Finishers
51-2022	Electrical and Electronic Equipment Assemblers
51-2023	Electromechanical Equipment Assemblers

COMPUTER-CONTROLLED MACHINE PROGRAMMERS AND OPERATORS

51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic

JOBS, WAGES, PAYROLL, AND ESTABLISHMENTS

Statistics on jobs, wages, payroll, and establishments were collected from Employment and Wages, Annual Averages, an annual series from the research consultancy Economic Modeling Specialists International (EMSI), based on data produced by the U.S. Bureau of Labor Statistics (BLS). This publication reports on average annual employment, total wages, and establishments at the state and national level. Most of these statistics originate with the Quarterly Census of Employment and Wages (QCEW) program. This series is the best and most comprehensive source of reliable data for statistical analysis at the state level.

The data from the QCEW are generated quarterly with a system-wide review with the release of the annual data (provided during the fourth quarter). Often there is a lag in the collection and reporting of the data, as BLS needs to receive the information from all 50 states, and the District of Columbia. To generate the 2016 data and provide the most recent available information at the time of production, *Cyberstates* used projection data from Economic Modeling Specialists International (EMSI) which was based on data through third or fourth quarter of 2016. All 2016 employment and payroll (and by proxy wage data) are based on these data.

Given that the 2016 data was not finalized by BLS at the time of production of this report, 2016 data are preliminary and subject to revisions. Data for previous years are considered final and represent all four quarters for each of the respective years.

Note regarding the metropolitan statistical area (MSA) data: the same process used to create tech profiles for the states is used for the metro areas. However, there may be situations where the estimated 2016 state data is not fully consistent with the estimated 2016 metro area data. Generally, the more granular the cut of data, the greater the possible variance. Additionally, because several metro areas span multiple states, such as New York City or Washington D.C., it is not possible to precisely evaluate the relationship between the MSA and the states it covers.

One of the major challenges in analyzing employment and wage data is that the BLS withholds data for industry sectors in the following instances: 1) where there are fewer than three establishments, 2) where a single establishment represents 80 percent or more of the industry 's employment, or 3) when a state specifically requests to protect a company's identity. However, broader industry-level statistics (three-digit and four-digit NAICS codes versus five-digit and six-digit NAICS codes) include some totals for nondisclosed data, which *Cyberstates* uses to generate the most accurate data possible.

The QCEW program does not include self-employed sole proprietorships. Thus, in the government database there is a lack of data on many start-up companies, which are a critical component of today's tech industry. According to data from EMSI, there are an estimated 1.1 million tech industry workers who were self-employed or sole proprietors. Detailed state levels for this metric are available in Appendix C. Additionally, the U.S. government's NAICS codes do not allow for the collection of statistics for tech industry temporary employees, another source of employment for the tech industry.

Finally, the main focus of much of the data in this report is on the industry level, which differs significantly from occupational-level employment data. An industry represents the primary production purpose of an establishment regardless of the occupations of the people working in that establishment. Most tech industry establishments have multiple types of occupations working at that location including both technical and nontechnical occupations.

CompTIA is responsible for all content contained in this report. Any questions regarding Cyberstates should be directed to CompTIA Research & Market Intelligence staff at research@comptia.org.

SPECIAL NOTE REGARDING COMPARISONS WITH PREVIOUS *CYBERSTATES*

Because of the revisions to the NAICS codes in 2012 and refinements to the *Cyberstates* definition of the tech industry and tech workforce to reflect the current state of the industry, this publication is not directly comparable to previous *Cyberstates* reports. However, most of the underlying data are the same as previous reports and the individual data for many of the sectors will match for the time periods where the data are finalized. Most of the trend lines of the historical data are the same as previous reports.

EMPLOYMENT

QCEW monthly employment data represent the number of workers who were employed by tech establishments during, or received compensation for, the pay period that included the 12th day of the month. The employment numbers, with few exceptions, cover all full-time and part-time employees. These include most corporate officials, executives, supervisory personnel, professionals, clerical workers, wage earners, and piece workers. Excluded are proprietors, the self-employed, unpaid family members, and certain farm and domestic workers. The employment data used in this report are calculated by averaging the available monthly data, and as such does not represent the number of employees in a particular month.

PAYROLL AND WAGES

Payroll, or total wages, includes total compensation paid during the calendar year by tech establishments. These wages generally include bonuses, tips and other gratuities, stock options and grants, and the value of meals and lodging, where supplied. In some states, employer contributions to certain deferred compensation, such as 401(k) plans, are included in total wages. However, total wages do not cover employer contributions to health insurance, unemployment insurance, disability insurance, workers' compensation, and private pension and welfare funds. Average annual wages were calculated by dividing total annual payroll by employment. This formula was used for all wages at the national and state level, for all industry sectors, and for private sector wages.

Like employment, payroll represents the entire payroll of the establishment industry, including corporate officials, executives, and supervisory personal, whose bonuses, stock options, and wages would bring up the average wages. As such, the average wages listed in this report do not represent the average salary of an average tech worker nor does it represent the median salary. The payroll of high-earning individuals has the potential to raise the average noticeably. Also the inclusion of bonus and stock options has the potential increase wage variance from year to year.

Payroll and wages at the national and state level are adjusted for inflation to 2015 dollars using the CPI-U for all urban consumers with 1982-84 as the base year equal to 100. *Cyberstates* used the annual average CPI as the adjustment factor list in parenthesis for each year: 2008 (215.303); 2009 (214.537), 2010 (218.056), 2011 (224.939), 2012 (229.594), 2013 (232.957) and 2014 (236.736). The inflation index used for 2015 (237.017) was based on data encompassing the entire year.

BUSINESS ESTABLISHMENTS

An establishment is an economic unit, such as a factory or office that produces goods or provides services. Usually, it is a single physical location and engaged in one, or predominately one, type of economic activity for which a single industrial classification may be applied. For the vast majority of small and mid-size tech companies, an establishment can be thought of as a company. Although for larger companies that have multiple establishments, representing their numerous locations, this is not the case.

OCCUPATIONAL DATA

Starting in 2015, *Cyberstates* now includes data at the occupational employment level. The occupational employment number represents the summation of 51 occupational codes used under the Standard Occupational Classification (SOC) system. See following page for the occupations included in CompTIA's definition.

As noted previously, tech occupational jobs are not the same as tech industry jobs. Occupational data are not limited to a specific industry. The total tech occupations listed in Appendix C include workers from across multiple industries. For example, a network systems administrator or software developer in the hospitality industry would be included in the occupational data but would not be included as part of the tech industry (as hospitality falls outside of the tech sector).

On the state-by-state overview pages the relationship between the tech industry and tech occupations is shown in the Tech Industry-Occupation Comparison Venn diagram. One bubble represents the total number of tech industry jobs and the other bubble represents the total number of tech occupations. The overlap between the two bubble represents the number of tech occupations that work within the tech industry. The percent listed above the graph represents the percentage of tech occupations that make up that state's tech industry. The Venn diagrams on the state overview pages are meant to be representatives of the overlap of industry and occupational jobs and are not created to scale.

The occupational data for this report are based on the research consultancy, EMSI, compiled using their Q4 2015 dataset. This includes data from the U.S. Bureau of Labor and from the various departments of labor and workforce development for each of the states.

JOB POSTING DATA

The job posting data found within *Cyberstates* is produced by the firm Burning Glass Technologies.

Job posting data is a useful, but an imperfect proxy for job demand. Not every posting translates to a new job; hiring firms may change their plans, post multiple times for the same job, hire internally, try different approaches to find the right candidate and so forth. Also, one ad may be posted for multiple openings. Burning Glass Technologies Labor Insights addresses many of these issues, but it is impossible to eliminate all possible sources of over or undercounting.

Additionally, within a time period, there may be situations where a worker is hired, the person isn't the right fit and is let go, and a firm starts the process over again. In the aggregate there is single position, but using job posting data, it may appear there are two positions. Labor turnover – whether voluntary or involuntary, is another variable that affects the interpretation of job posting data.

CompTIA recommends using job posting data in conjunction with BLS, EMSI, and other data sources to get a more complete picture of labor supply and demand dynamics.

GENDER RATIOS

The gender ratio data for this report come from the U.S. Bureau of Labor Statistics' Current Population Survey. The data cover only private sector wages and salaried workers. Unemployment rates are subject to both sampling and nonsampling errors, as sometimes the data on which they are derived are based on a very small number of observations.

ECONOMIC IMPACT: GROSS STATE PRODUCT (GSP)

To calculate the percent of each state's or each metropolitan area's economy that is attributable to the tech industry, regional economic accounts from the U.S. Bureau of Economic Analysis was used, which provides gross domestic product by state for many top level NAICS sectors.

The most recent data for this indicator are for 2014, with estimates for 2015 and 2016 made by EMSI. GDP by state is the value added in production by the labor and capital located in a state. GDP for a state is derived as the sum of the GDP originating in all industries in the state.

INNOVATION: PATENTS AND TECH STARTUPS/NEW TECH BUSINESS ESTABLISHMENTS

Patent data are aggregated by the U.S. Patent and Trademark Office. The three patent categories covered in *Cyberstates* are 1). Electrical Computers, Digital Processing Systems, Information Security, Error/Fault Handling, 2). Semiconductors, and 3). Telecommunications. The most recent data available at the time of publication was 2015. The other component of innovation used in *Cyberstates* is the number of tech startups and new tech business establishments. Data covering the categories represented by the definition of tech industry used in this report formed the basis for pulling the data from Hoovers. For continuity with the patent data, 2015 was also used for tech startups and new tech business establishments. The innovation score was calculated based on the number of tech patents and the number of tech startups/new tech business establishments, and then presented as a per capita ranking based on a state's population.

ROUNDING

Many of the data points in this report are rounded. As a result, additional data often exist that are not reflected and can affect ranking, percent change, numeric change, and summations. Many of the rankings in the appendices may appear to be the same because of rounding; however, in reality they are different. In those rare instances when the data are not rounded and are indeed the same, the ranking for those states is a tie.

CompTIA.org