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STATE OF THE TECH WORKFORCE | CYBERSTATES 2023

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Published in the U.S. March 2023

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State of the Tech Workforce can be accessed online at Cyberstates.org.

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ABOUT COMPTIA

The Computing Technology Industry Association (CompTIA) is a leading voice and advocate for the \$5 trillion global information technology ecosystem; and the estimated 75 million industry and tech professionals who design, implement, manage, and safeguard the technology that powers the world's economy. Through education, training, certifications, advocacy, philanthropy, and market research, CompTIA is the hub for unlocking the potential of the tech industry and its workforce.

CompTIA is the world's leading vendor-neutral IT-certifying body with more than 3.0 million certifications awarded based on the passage of rigorous, performance-based exams. CompTIA sets the standard for preparing entry-level candidates through expert-level professionals to succeed at all stages of their career in technology. Through CompTIA's philanthropic arm, CompTIA develops innovative on-ramps and career pathways to expand opportunities to populations that traditionally have been under-represented in the information technology workforce.

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ABOUT STATE OF THE TECH WORKFORCE

CompTIA designed State of the Tech Workforce, also referred to as Cyberstates, to serve as a reference tool, making national, state, and metro area-level data accessible to a wide range of users. State of the Tech Workforce quantifies the size and scope of the tech industry and the tech workforce across multiple vectors. To provide additional context, the report includes time-series trending, average wages, business establishments, job postings, gender ratios, innovation and emerging tech metrics, and more. For the interactive online version, please 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? CompTIA weighs a number of factors in making these decisions. See the methodology section for details of the specific NAICS codes and SOC codes CompTIA uses in its definitions.

IMPORTANT NOTE about timing: the 2022 estimates and 2023 projections represent the most up-to-date data at the time of reporting. As with any labor market data source there is a lag effect and recent developments during late 2022 and early 2023 will likely not be fully reflected in the data.



CompTIA's base of IT certification holders spans 232 countries



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DEFINING NET TECH EMPLOYMENT

The tech workforce consists of two primary components, represented as a single figure by the 'net tech employment' designation. The foundation is the set of technology professionals working in technical positions, such as IT support, network engineering, software development, data science, and related roles. Many of these professionals work for technology companies (42%), but many others are employed by organizations across every industry sector in the U.S. economy (58%).

The second component consists of the business professionals employed by technology companies. These professionals – encompassing sales, marketing, finance, HR, operations and management, play an important role in supporting the development and delivery of the technology products and services used throughout the economy. Approximately 39% of the net tech-employment total consists of tech industry business professionals.

One final segment involves workers classified as self-employed. For the purposes of this report, only dedicated, full-time self-employed technology workers are counted towards net tech employment. Workers that are characterized as "gig" workers, which may entail working on the side for supplementary income, are excluded from this analysis due to several uncertainties with the data and to minimize the possibility of double counting.

N = Technology professionals employed across the economy, including in the tech sector (e.g. software developers, network architects, database admins, etc.)

N = Tech sector employment, less technology professionals (e.g. sales, marketing, finance, HR, etc.)



61%% of NET tech employment is in technology occupations

= 100,000 workers

Source: Lightcast | U.S. Bureau of Labor Statistics | CompTIA



KEY POINTS

- → The 2022 estimates and 2023 projections are presented with the most up-to-date data at the time of reporting. As with any labor market data source there is a lag effect and recent developments during late 2022 and early 2023 will likely not be fully reflected in the data.
- → For the most up-to-date employment trending data, see CompTIA's monthly <u>Tech Jobs Report</u>.
- → Net tech employment in the United States as described on the previous page, reached an estimated 9,156,390 workers in 2022, an increase of 3.2% year-over-year or approximately 286,400 additional workers employed in technology.
- → Among the components of net tech employment, the tech sector side of the equation is projected to grow 3.2% in the year ahead, with the occupation side across the economy is projected to grow at 3.4%.
- →I Within the technology industry category, which encompasses technology occupations and supporting business occupations, growth has varied. Since 2017, the IT services and custom software services category powered job growth, accounting for 52% of job gains. Software [product] accounted for 29% of the job gains in the same time period. Tech manufacturing saw a fall in number of jobs created in 2020 and 2021 but is forecasted to grow at 1.2% in 2023.
- →I The interconnected nature of technology across software and applications, infrastructure and hardware, data, support operations and cybersecurity, means job growth tends to occur in concert. On a volume basis the large software and IT support categories contribute the most to employer gains numerically, while on a percent change basis the categories covering all things data and cybersecurity are growing the fastest.
- → Top projected growth occupations for 2023:

5.5%	Data Scientists and Data	\ A malviete
7 770	Data Scientists and Data	1 Anaivsis

5.2% Cybersecurity Analysts and Engineers

4.7% Web Designers and UI/UX

4.7% Software Developers and Engineers

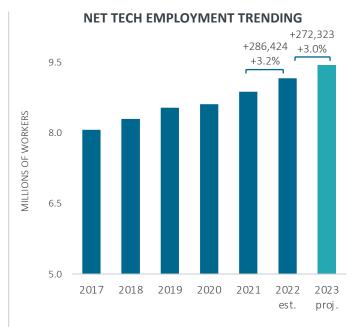
4.1% Software QA and Testers

3.4% CIOs and IT Directors

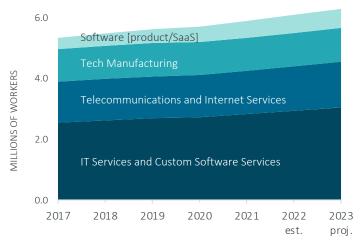
2.6% Systems Analysts and Engineers

2.4% IT Support Specialists

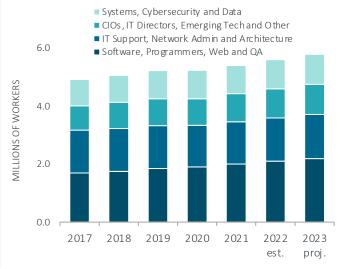
→ Economic impact data further corroborates the importance of the tech sector. As a percentage of the overall U.S. economy, the tech industry accounts for 8.8% of direct economic value, which translates to over \$1.97 trillion.



TECH INDUSTRY EMPLOYMENT TRENDING



TECH OCCUPATION EMPLOYMENT TRENDING



Source: Lightcast | U.S. Bureau of Labor Statistics | CompTIA



KEY POINTS

- →I According to projections from the U.S. Bureau of Labor Statistics and Lightcast, in the next ten years the tech workforce will grow twice as fast as the overall U.S. workforce. The macro trend of digital transformation means demand for tech talent across the full spectrum of tech job roles will continue unabated.
- → Calculating future workforce needs over the next decade is a function of several variables. There is a growth component, which may entail organizations adding headcount due to expansion or possibly to support new emerging technologies. There is a retirement factor, with a portion of the workforce transitioning away from the labor market permanently. And lastly, there is a segment leaving the workforce for some other reason, also referred to as separations. These may stem from a career change, layoffs, a return to school, family pursuits, or other. Changes to any of these variables will affect future workforce projections.
- → The replacement rate for tech occupations during the 2023-2033 period is expected to average about 7% annually, or approximately 400,000 workers each year, totaling several million through 2033. The total turnover rate, which encompasses workers transitioning within tech such as those promoted into a new role, is estimated to average 36% annually during the period. In comparison, the highest turnover occupations have annual rates typically in the 100%-200% range.
- Tech occupation employment over the next 10 years is expected to grow at about twice the rate of overall employment across the economy. Projected tech growth rates above the national rate:

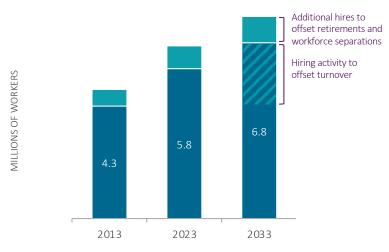
266%	Data Scientists and Data Analysts
242%	Cybersecurity Analysts and Engineers
180%	Software Developers and Engineers
164%	Web Designers and UI/UX
159%	Web Developers
132%	Software QA and Testers
99%	CIOs and IT Directors
49%	Database Architects
39%	Systems Analysts and Engineers
22%	Network Support Specialists

IT Support Specialists

- →I Job posting data provides another layer of insight into the tech job market outlook. Because government labor taxonomies Standard Occupation Codes (SOCs), lag the speed with which the market changes, job posting data provides a more up-to-date look at the skills and experiences employers seek.
- → Overall tech job postings among U.S. employers dipped during 2020 due to the pandemic hiring slowdown and then rebounded through 2022 and into 2023. Note: job postings should not be interpreted as unfilled jobs and there is not a 1:1 relationship between postings and actual hires made.

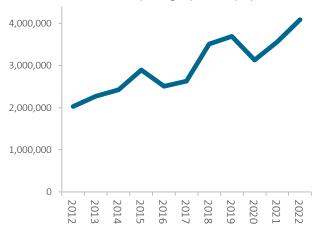
TECH OCCUPATION EMPLOYMENT OUTLOOK

Workforce need = annual replacement rate + growth rate



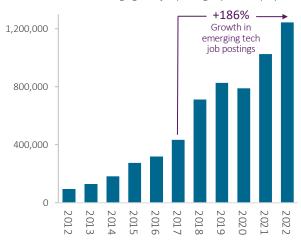
AGGREGATE ANNUAL POSTINGS FOR TECH JOB ROLES

Job postings by U.S. employers



EMERGING TECH DEMAND RAMPS UP

Annual emerging tech job postings by U.S. employers



Source: Lightcast | U.S. Bureau of Labor Statistics | CompTIA



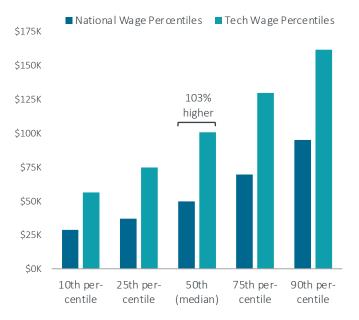
21%

THE MANY FACETS OF WAGE DATA

KEY POINTS

- →I There are many nuances to the tech wage discussion. At the industry level meaning the universe of technology companies in the sector, wages encompass all staff positions, from the CEO down to entry-level helpdesk workers. Both technical and non-technical positions factor into the industry wage calculation. Because of the diversity of positions covered, interpreting summary industry wage data requires accounting for these factors. In comparison, tech occupation wages cover only technical positions. This is the primary focus of the wage data of this report.
- →I Cost of living differences mean the wages in one location are not directly comparable to another. For example, the buying power of a salary in San Francisco will not go nearly as far as in Des Moines. According to the National Association of Realtors, the median price for a home in Silicon Valley exceeds \$1.2 million. See CompTIA IT Salary Calculator for detailed wage data across 400+ metro areas.
- →I 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 artificial intelligence, working for a Fortune 500 company, will earn on average far more than a tech worker in an established field, working for a small business in a rural area.
- →I Percentiles help provide insight into wage ranges. This approach minimizes the impact of outlier data points, such as workers receiving massive stock payouts. It is also useful in depicting wages along common career paths, with workers just starting out earning wages at the 10th percentile, and then with experience and additional training and certification, moving up through the higher wage levels.
- →I Across all tech occupation categories covered in this report, the median wage, also referred to as the 50th percentile or midpoint, was an estimated \$100,615 in 2021, the most recent year of available government data. This figure is more than double the median wage across all occupations of the U.S. labor force. Note: sources such as Glassdoor may provide more realtime data but the tradeoff is a higher degree of data uncertainty than data from the U.S. Bureau of Labor Statistics.
- →I The scatterplot graph to the right illustrates the degree to which wages will differ across states. The data presents wages for software developers and IT support specialists across percentiles. Tenth and 25th percentiles often correspond to early-stage career positions (e.g. 0-4 years of experience), while 75th and 90th percentiles cover higher-end experience and expertise.
- →I When drilling down to the metro area level, wage differences may become even more pronounced. Top tier wages in locations such as San Jose or New York City may run into hundreds of thousands, if not more when factoring in bonuses or stock options.

ANNUAL WAGE COMPARISON ACROSS OCCUPATIONS



TECH WAGES CAN VARY SIGNIFICANTLY BASED ON OCCUPATION, LOCATION, AND PERCENTILE



Source: Lightcast | U.S. Bureau of Labor Statistics | CompTIA



KEY FINDINGS – TECH WORKFORCE CHARACTERISTICS

LABOR FORCE CHARACTERISTICS OVERVIEW

- → The U.S. Bureau of Labor Statistics (BLS) tracks labor market composition across several demographic and firmographic characteristics. By race and ethnicity, the BLS segments data by seven top-level categorizations. Described in detail here:
 - American Indian and Alaska Native
 - Asian
 - Black or African American
- Hispanic or Latino
- Native Hawaiian and Other Pacific Islander
- Two or More Races
- White
- → Additional population segmentations are available from the Census Bureau, but for the purposes of analyzing labor market compositions of specific occupation categories, the seven categories above are the extent of data availability.

DIVERSITY INDEX

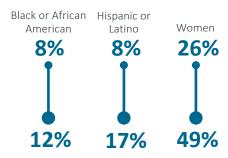
- → There are several approaches to assessing labor force characteristics. Numeric totals and relative percentages are good starting points. Taking it a step further, however, provides deeper insights and more context.
- → To measure overall race and ethnicity characteristics within the tech workforce, this report uses a metric called *Simpson's Diversity Index*. This index weights two key facets of race and ethnicity within the workforce richness and evenness (or think of it as depth and breadth) and reflects it in a single metric.
- →I The U.S. tech workforce recorded a Diversity Index measure of 59, roughly on par with the overall U.S. workforce measure of 57 on a 100-point scale. The District of Columbia recorded the highest tech workforce Diversity Index score at 68, followed by Texas, California, and Georgia. In contrast, the states at the other end of the continuum had tech workforce Diversity Index scores below 20.

TECH WORKFORCE REPRESENTATION

- → → As the name implies, tech workforce representation measures the composition of the tech workforce relative to the overall composition across all occupations.
- → Nationally, Black or African American workers represent 12% of the U.S. workforce and 8% of tech occupations. This gap signals underrepresentation in the tech workforce. Examples of states with high levels of tech workforce representation numerically and in relation to the overall workforce composition include the District of Columbia, Mississippi, Georgia, and Maryland.
- → Nationally, Hispanic or Latino workers represent 17% of the U.S. workforce and 8% of tech occupations. This gap signals underrepresentation in the tech workforce. Examples of states with high levels of tech workforce representation numerically and in relation to the overall workforce composition include New Mexico, Florida, Texas, and Arizona.
- → Nationally, women represent approximately 49% of the U.S. workforce and 26% of tech occupations. This gap signals underrepresentation in the tech workforce. Examples of states with high levels of tech workforce representation in relation to the overall workforce composition include the District of Columbia, Mississippi, Maine, and South Carolina.

TECH WORKFORCE CHARACTERISTICS

U.S. tech occupation representation



vs. representation across all U.S. occupations

EXAMPLES OF TECH JOB REPRESENTATION VS. ALL JOBS IN STATE REPRESENTATION²

BLACK OR AFRICAN AMERICAN REPRESENTATION

	Tech <u>Jobs</u>	All <u>Jobs</u>
District of Columbia	27%	32%
Mississippi	24%	36%
Georgia	23%	31%
Maryland	22%	27%

HISPANIC OR LATINO REPRESENTATON

	Tech <u>Jobs</u>	All <u>Jobs</u>
New Mexico	31%	45%
Florida	17%	25%
Texas	17%	35%
Arizona	15%	30%

WOMEN REPRESENTATION

WOWLINKEI KESENTATION		
	Tech Jobs	All <u>Jobs</u>
District of Columbia	31%	53%
Mississippi	30%	50%
Maine	30%	49%
South Carolina	29%	50%

Source: Lightcast \mid U.S. Bureau of Labor Statistics \mid CompTIA



KEY FINDINGS – NATIONAL EMPLOYMENT

U.S. NET TECH EMPLOYMENT

- → U.S. net tech employment totaled an estimated 9.2 million in 2022, a gain of 3.2% compared to the previous year. Net tech employment is projected to grow at an estimated 3.0% year-over-year reaching 9.4 million in 2023.
- → Net tech employment accounted for approximately 5.8% of the overall U.S. workforce in 2022. As noted previously, because of the blurring of lines across industries, there is a degree of undercounting in tech sector employment.

U.S. TECH INDUSTRY EMPLOYMENT

- → U.S. tech industry employment totaled an estimated 6.1 million in 2022, an increase of 199,147 workers from 5.9 million in 2021. Tech industry employment is projected to grow at an estimated 3.2% year-over-year reaching 6.3 million in 2023. As noted, tech industry employment is a subset of net tech employment.
- → Tech manufacturing employment totaled an estimated 1.1 million in 2022 and is projected to grow by 13,345 jobs in 2023.
- → Among the seven major tech manufacturing subsectors the OEMs and companies producing computing hardware, peripherals, semiconductors, etc., one is projected to experience employment losses, while the remaining categories are projected to experience job gains.
- →I Employment in the telecommunications and Internet services sector totaled an estimated 1.5 million in 2022, projected to go up by 39,553 jobs in 2023. These employment gains are driven by growth in the data processing, hosting, and search portal services categories, where employment should increase by 45,277 jobs. Wired and wireless telecommunications services are projected to lose 8,669 jobs for the same time period.
- → The software category, consisting of general purpose software that is not custom developed, also known as published or packaged software products (including SaaS), employed an estimated 596,343 workers in 2022, and is projected to add more than 28,000 net new jobs. On a percent change basis, software will lead the tech sector with a 4.7% projected year-over-year growth rate.
- → The IT services and custom software services subsector will generate the largest numerical gain in employment, adding nearly 114,300 net-new jobs in 2023. This gain of 3.9% will increase the employment base to 3.04 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, process automation, data analytics, and cybersecurity.

U.S. TECH OCCUPATION EMPLOYMENT

- → Tech occupation jobs reached an estimated 5.6 million workers in 2022 and is projected to increase by 187,542 jobs in 2023. On a percent change basis, the annual growth rate is 3.4%.
- → Since 2017, more than 680,000 new tech occupation jobs were added, a function of the demand for tech talent across every industry sector in the economy.
- →I On a numeric basis, software developers, systems analysts and cybersecurity analysts, network architects, and IT support specialists recorded the largest gains in employment. While the U.S. Bureau of Labor Statistics does not yet break out many emerging tech roles, other data sources indicate these new specialties are starting to make meaningful contributions to the growth of the tech workforce.

U.S. NET TECH EMPLOYMENT

	<u>2022 est.</u> <u>20</u>)23 proj.	Numeric <u>Change</u>
Tech Occupation Employment	5.6m	5.8m	+187,542
Tech Industry Employment	6.1m	6.3m	+195,363
Net Tech Employment	9.2m	9.4m	+272,323

U.S. TECH INDUSTRY EMPLOYMENT

	<u>2022 est.</u>	<u>2023 proj.</u>	Projected Numeric <u>Change</u>
Tech Manufacturing	1.1m	1.1m	+13,345
Telecommunications and Internet Services	1.5m	1.5m	+39,553
Software [product]	0.6m	0.6m	+28,167
IT Services & Custom Software services	2.9m	3.0m	+114,298
Total	6.1m	6.3m	+195,363

TECH OCCUPATION CATEGORY SUMMARY

	2022 est.	2023 proj.	Projected Numeric <u>Change</u>
Software	2,098,769	2,189,319	+90,550
IT Support Specialists	798,120	815,626	+17,506
Cybersecurity and Systems Engineers	709,027	732,142	+23,115
Network Engineers	684,104	697,657	+13,553
Emerging Tech and Other	492,848	506,471	+13,623
Database, Data Scientists	291,679	303,039	+11,360
CIOs and IT Managers	518,899	536,735	+17,837
Total	5.6m	5.8m	+187,542

Source: Lightcast | U.S. Bureau of Labor Statistics | CompTIA



KEY FINDINGS – STATE EMPLOYMENT

STATE NET TECH EMPLOYMENT

- → All states and the District of Columbia experienced job gains in net tech employment from 2021 to 2022. All states are projected to generate positive tech employment job growth in 2022. While the largest job gains are associated with the states with a significant tech presence, the fact that most states experienced tech employment job gains speaks to the continued broad-based impact of technology across the nation.
- → On an industry sector basis, the IT services/custom software services sector has been the growth engine for the greatest number of states over the past year. Year-over-year distribution of counts of top categories by state:
 - → IT services/custom software services: 49 states
 - → Software: 48 states
 - → Telecommunications: 43 states
 - → Tech manufacturing: 37 states
- →I The metrics used to provide context and insight into the data tend to be based on absolute size or are relative, which may involve percent change or account for factors such as population or economic size differences. Absolute measures tend to be highly correlated with the size of the state or metro area. For example, California is the largest state in the nation by a wide margin. Its population is 40% larger and its economy is 54% larger than second place Texas. California's economy is equal to the combined total of the bottom 25 states. Unsurprisingly, California is the leader in many State of the Tech Workforce categories.
- → California's net tech employment was an estimated 1,487,864 workers in 2022, a gain of 38,186 net new jobs year-over-year. Other states that experienced notable tech employment gains include Texas, New York, Florida, and Virginia.
- → On a percent change basis, the top five states for job growth in 2022 were Nevada (+6.4%), Tennessee (+6.2%), Texas (+5.5%), Washington (+5.5%), and Wyoming (+5.0%).
- → Employment concentration is a relative metric that compares tech employment to the overall base of employment within a state. Sixteen states are at a higher rate than the national average of 5.8%.
- → Washington has the highest concentration (9.4%) of tech workers relative to its overall employment base, which means citizens of the state are more likely to hold a tech job relative to other industry sectors. Top ten states for net tech employment concentration:

→ Washington: 9.4%

→ District of Columbia: 9.3%

→ı Virginia: 8.7%

→ Massachusetts: 8.4% → Colorado: 8.3%

→ New Hampshire: 7.9%

→ı Maryland: 7.9%

→ California: 7.7%

→ı Utah: 7.2%

→I Oregon: 6.7%

→ Conversely, the states with the lowest concentration of tech workers are: Wyoming, Mississippi, Louisiana, Alaska, West Virginia, and North Dakota.

TOP STATES BY NET TECH EMPLOYMENT

1.	California	1,487,864
2.	Texas	867,278
3.	New York	535,457
4.	Florida	484,593
5.	Virginia	358,713
6.	Washington	347,093
7.	Illinois	325,685
8.	Massachusetts	318,631
9.	Pennsylvania	300,447
10.	Georgia	294,133

TOP STATES BY NET TECH EMPLOYMENT JOB GAINS

1.	Texas	45,331
2.	California	38,186
3.	Florida	22,029
4.	New York	18,487
5.	Washington	17,962
6.	Georgia	10,728
7.	Colorado	10,174
8.	Pennsylvania	9,918
9.	New Jersey	8,563
10.	Illinois	8,350

TOP STATES BY PROJECTED PERCENT CHANGE IN TECH OCCUPATION GROWTH 2023-2033

1.	Utah	32%
2.	Wyoming	29%
3.	Texas	27%
4.	Tennessee	26%
5.	Mississippi	25%
6.	Arizona	24%
7.	Nevada	23%
8.	Idaho	22%
9.	Louisiana	22%
10.	Georgia	22%





KEY FINDINGS – STATE TECH STARTUPS AND ECONOMIC IMPACT

STATE TECH BUSINESS ESTABLISHMENTS AND STARTUPS DRIVE INNOVATION

- →I All states added to their base of tech business establishments. These could be startups launching a new tech venture or established tech firms expanding operations with another business unit (e.g. opening a new business establishment in another state). Nationally, the count of tech business establishments increased 7.5% in 2022, or the equivalent of 40,507 additional business establishments.
- → On a numeric basis, Florida had the largest year-over-year increase of net-new tech business establishments (+2,733). Rounding out the top five for net-new tech business establishments were Texas, North Carolina, Illinois, and Colorado. On a percent change basis, Wyoming experienced the largest increase at 15.7%, followed by South Dakota, North Dakota, Vermont, and Tennessee.

STATE TECH ECONOMIC IMPACT

- →I Economic impact is an assessment of output the dollar value of goods and services produced during a given year (also referred to as gross domestic or regional product). As a percentage of the overall U.S. economy, the tech industry accounts for 8.8% of direct economic value, which translates to over \$1.97 trillion.
- → A total of 29 states have a tech sector that generates \$10 billion or more in direct economic impact to the state. California tops the list at a massive \$535.9 billion in economic impact, representing 16.7% of the state's economy. On a dollar basis the other top states include Texas, New York, Washington, and Massachusetts.
- →I In addition to the direct economic impact, there are downstream, indirect benefits of the technology industry. One way to assess this impact is 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 additional jobs are created or supported through direct, indirect, or induced means.

STATE EMPLOYER JOB POSTINGS

- →I On volume basis the top states for employer hiring activity via tech job postings in 2022 were California, Texas, Florida, and New York. States that saw the greatest increase year-over-year were California, Texas, Florida, Illinois, and Virginia.
- → Top states for emerging tech job postings in 2022 were California (186,418), Texas (113,629), New York (60,684), Virginia (57,316), and Illinois (54,895). States that saw the largest increase in emerging tech positions in 2022 when compared to the previous year were California (+19,023), Texas (+12,665), and Illinois (+11,505).
- → Emerging tech job postings as a percentage of total tech job postings are highest in Washington (42.7% of IT Job postings are emerging tech), Massachusetts (39.5%), South Dakota (38.9%), Delaware (34.4%), and Tennessee (34.3%).

THE WORK FROM HOME (WFH) IMPACT

→ The job posting data confirms a momentous shift in thinking about work location among employer and employees. Among all tech job postings in 2022, 34% specified a WFH or hybrid work option, or slightly over 1.4 million job postings. This represents a 146% increase over the 2019 pre-pandemic rate.

TOP STATES BY NUMBER OF NEW TECH BUSINESS ESTABLISHMENTS IN 2022

1.	Florida	2,733
2.	Texas	2,310
3.	North Carolina	1,836
4.	Illinois	1,757
5.	Colorado	1,622
6.	Pennsylvania	1,551
7.	Virginia	1,542
8.	Tennessee	1,494
9.	Washington	1,442
10.	Michigan	1,306

TOP STATES BY TECH ECONOMIC IMPACT AS PERCENT OF STATE ECONOMY

1.	Washington	21.8%
2.	California	16.7%
3.	Massachusetts	12.9%
4.	New Hampshire	12.6%
5.	Colorado	12.2%
6.	Oregon	10.9%
7.	Virginia	10.8%
8.	Utah	10.0%
9.	Georgia	8.9%
10.	Maryland	8.9%

TOP STATES BY GROWTH IN EMPLOYER JOB POSTINGS FOR TECH OPENINGS

1.	California	+ 49,383
2.	Texas	+ 42,431
3.	Florida	+ 26,849
4.	Illinois	+ 26,617
5.	Virginia	+ 25,120
6.	Michigan	+ 24,566
7.	Massachusetts	+ 22,967
8.	Arkansas	+ 19,474
9.	New York	+ 19,063
10.	New Jersey	+ 17,113





KEY FINDINGS – METRO AREA EMPLOYMENT

METRO AREA NET TECH EMPLOYMENT

- → The top ten metropolitan areas employ a little more than 3.5 million tech industry and tech occupation workers, more than 1 in 3 tech 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 employment.
- →I Silicon Valley continues to be a critically important hub for innovation. Between San Francisco and San Jose, there are a little more than 700,000 tech industry and tech occupation workers. The discussion doesn't end there, however, as technology increasingly has a significant presence across the nation. Cities such as Boston, Seattle, New York, Dallas, Atlanta, Los Angeles, Denver and more, boast sizable tech workforces and notable job gain rates. This includes the sometimes "under the radar" tech cities of Austin, Raleigh, Charlotte, Phoenix, Detroit, Orlando, and more.

METRO AREA EMPLOYMENT CONCENTRATION

- →I Employment concentration provides a measure of tech employment relative to employment across all the other industry sectors in a local economy. Along with economic impact as a percentage of a local economy, these metrics help to put tech into context.
- → At 31.3%, San Jose has the highest concentration of net tech employment as a percentage of its overall employment base.
- → Compared to the national tech employment concentration benchmark of 5.8%, 25 metro areas had the same rate or higher, confirming the importance of technology to a farreaching set of cities across the country.

METRO AREA TECH BUSINESS ESTABLISHMENTS

- →I 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 23,149 tech business establishments. Other top cities are Washington DC, Los Angeles, Dallas, and Seattle.
- → The vast majority of tech business establishments are categorized as small businesses under the Small Business Administration's definition of up to 500 employees.
- →I Outside of the top five, the next largest metropolitan areas for the number of tech sector business establishments include Denver, Chicago, Boston, San Francisco, and Atlanta.

METRO AREA EMPLOYER JOB POSTINGS

- → Cities with the most tech job postings in 2022 were New York, Washington DC, Dallas, Los Angeles, Chicago, and San Francisco. In terms of year over year numerical change, the top 5 metros were New York City, Los Angeles, Boston, Chicago, and Houston.
- → Emerging tech job positions were highest in New York City (78,667), Washington DC (63,469), San Francisco (57,506), Dallas (52,945), and Los Angeles (46,927) round out the top five cities for emerging tech job postings.

TOP METROS BY NET TECH EMPLOYMENT

1.	New York City	558,651
2.	Los Angeles	385,563
3.	Washington DC	368,253
4.	San Jose	360,904
5.	San Francisco	350,662
6.	Dallas	329,347
7.	Seattle	289,325
8.	Boston	272,572
9.	Chicago	245,390
10.	Atlanta	220,242

TOP METROS BY NET TECH EMPLOYMENT JOB GAINS

1.	New York City	+	18,420
2.	Dallas	+	14,010
3.	Seattle	+	13,438
4.	San Francisco	+	12,650
5.	Austin	+	10,795
6.	Los Angeles	+	6,681
7.	Denver	+	6,357
8.	Miami	+	5,166
9.	Houston	+	5,090
10.	San Jose	+	4,539

TOP METROS BY TECH ECONOMIC IMPACT AS A PERCENT OF LOCAL ECONOMY

1.	San Jose	57.1%
2.	Seattle	28.9%
3.	San Francisco	26.8%
4.	Austin	23.8%
5.	Raleigh	16.5%
6.	Boston	14.6%
7.	Portland	14.4%
8.	Denver	13.1%
9.	Washington DC	12.9%
10.	Atlanta	12.1%







United States

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

9,156,390 NET TECH EMPLOYMENT¹

5.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$1.97t ECONOMIC IMPACT [estimated direct impact of tech sector]

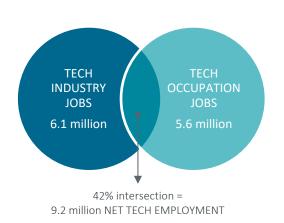
8.8% ECONOMIC IMPACT AS A % OF OVERALL

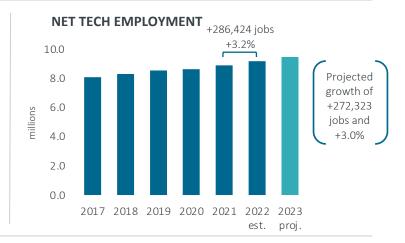
582,120 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

4,084,397 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



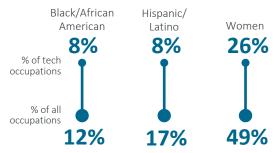
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³	
Software, Programmers, Web and QA	2,098,769	4.3%	
IT Support Specialist and Repair Technicians	798,120	2.2%	
Cybersecurity and Systems Engineers	709,027	3.3%	
Network Engineers, Architects and Support	684,104	2.0%	
Emerging Tech, IT Project Mgt. and Other	412,077	2.8%	
Database, Data Science, Analytics and CS	291,679	3.9%	

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$100,615, \$80K 103% higher than median \$40K national wage5 ŚOK 10th 25th 75th 90th





Alabama

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

87,524 NET TECH EMPLOYMENT¹

4.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$10.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.2% ECONOMIC IMPACT AS A % OF OVERALL

6,828 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

43,214 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

24.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



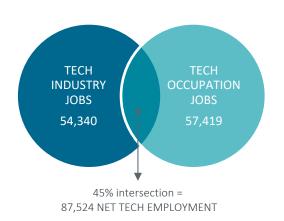
26th NET TECH EMPLOYMENT RANK

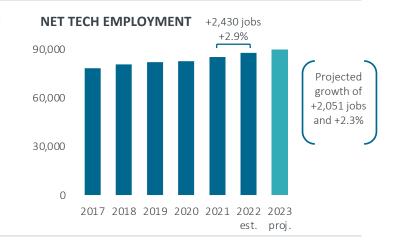
25th NET TECH EMPLOYMENT JOBS ADDED RANK

5th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = highest | see footnote]

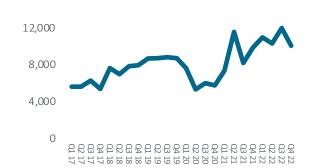
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



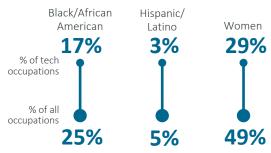
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	21,324	3.7%
Network Engineers, Architects and Support	8,258	1.0%
IT Support Specialist and Repair Technicians	8,249	1.7%
Cybersecurity and Systems Engineers	7,753	2.9%
Database, Data Science, Analytics and CS	3,332	2.5%
Emerging Tech, IT Project Mgt. and Other	2,796	3.3%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$85,764, \$80K 132% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Alaska

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

9,525 NET TECH EMPLOYMENT¹

2.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$1.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.1% ECONOMIC IMPACT AS A % OF OVERALL

882 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

5,455 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

17.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



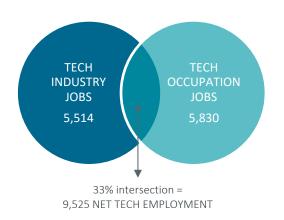
50th NET TECH EMPLOYMENT RANK

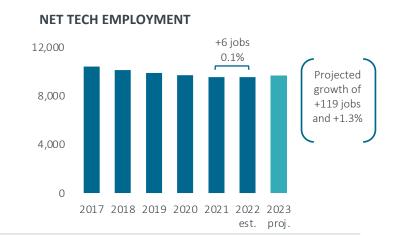
51st NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = highest | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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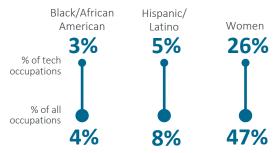
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Network Engineers, Architects and Support	1,639	0.0%
Software, Programmers, Web and QA	1,250	2.0%
IT Support Specialist and Repair Technicians	935	1.0%
Emerging Tech, IT Project Mgt. and Other	599	1.7%
Cybersecurity and Systems Engineers	558	2.0%
Database, Data Science, Analytics and CS	315	2.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$84,063, \$80K 69% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



Arizona

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

201,183 NET TECH EMPLOYMENT¹

6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$33.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.2% ECONOMIC IMPACT AS A % OF OVERALL

13,483 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

105,107 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



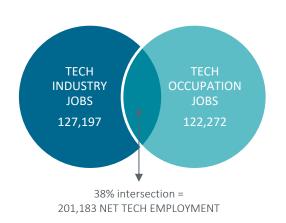
17th NET TECH EMPLOYMENT RANK

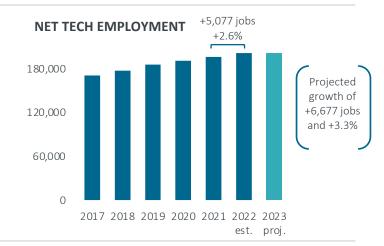
NET TECH EMPLOYMENT JOBS ADDED RANK 16th

34th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

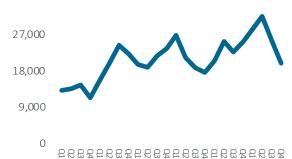
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



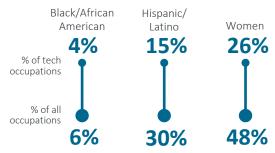
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	48,252	4.9%
IT Support Specialist and Repair Technicians	22,191	2.3%
Cybersecurity and Systems Engineers	15,998	4.0%
Network Engineers, Architects and Support	13,565	2.9%
Database, Data Science, Analytics and CS	5,695	5.1%
Emerging Tech, IT Project Mgt. and Other	4,408	4.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$88,355, \$80K 115% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th

most recent available



Arkansas

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

39,896 NET TECH EMPLOYMENT¹

3.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$4.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.0% ECONOMIC IMPACT AS A % OF OVERALL

4,771 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

34,636 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



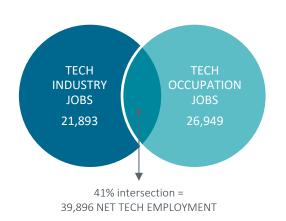
38th NET TECH EMPLOYMENT RANK

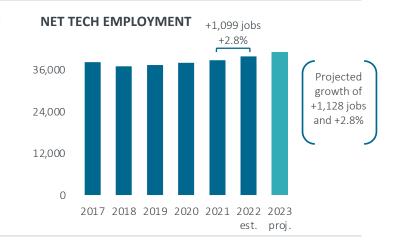
34th NET TECH EMPLOYMENT JOBS ADDED RANK

10th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

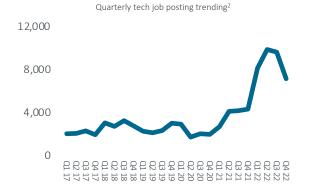
3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



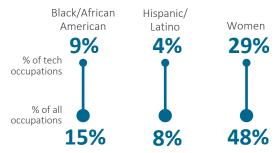
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	9,947	3.8%
IT Support Specialist and Repair Technicians	4,117	2.1%
Cybersecurity and Systems Engineers	3,865	3.0%
Network Engineers, Architects and Support	3,857	1.5%
Database, Data Science, Analytics and CS	1,419	3.7%
Emerging Tech, IT Project Mgt. and Other	1,320	3.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





California

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

1,487,864 NET TECH EMPLOYMENT¹

7.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$535.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

16.7% ECONOMIC IMPACT AS A % OF OVERALL

55,868 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

547,874 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

34.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



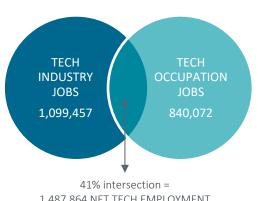
1st NET TECH EMPLOYMENT RANK

NET TECH EMPLOYMENT JOBS ADDED RANK

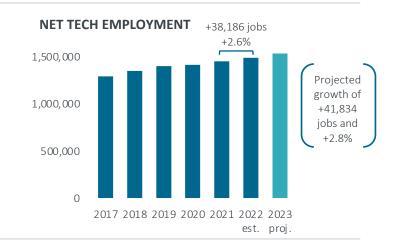
49th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page







EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

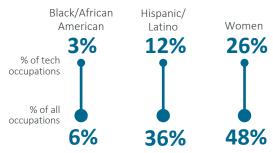
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	343,910	4.2%
Emerging Tech, IT Project Mgt. and Other	98,982	2.0%
Cybersecurity and Systems Engineers	83,658	3.5%
IT Support Specialist and Repair Technicians	83,554	2.2%
Network Engineers, Architects and Support	66,472	2.5%
Database, Data Science, Analytics and CS	44,410	4.0%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$200K Estimated \$150K median tech wage \$119,568 \$100K 151% higher than median \$50K state wage⁵ ŚOK 10th 25th 75th 90th



180,000

120,000

60,000

Colorado

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

248,508 NET TECH EMPLOYMENT¹

8.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$52.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

12.2% ECONOMIC IMPACT AS A % OF OVERALL

19,669 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

127,555 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



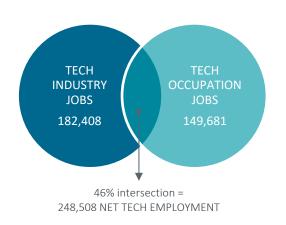
14th NET TECH EMPLOYMENT RANK

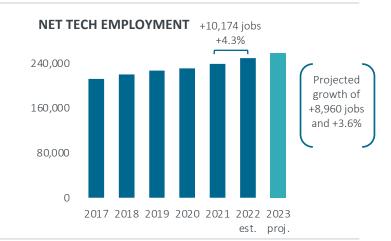
7th NET TECH EMPLOYMENT JOBS ADDED RANK

31st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



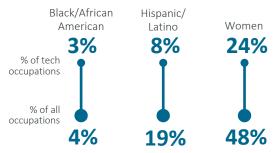
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	56,543	5.2%
Network Engineers, Architects and Support	24,014	2.2%
IT Support Specialist and Repair Technicians	20,596	3.0%
Cybersecurity and Systems Engineers	17,814	4.5%
Emerging Tech, IT Project Mgt. and Other	7,504	4.2%
Database, Data Science, Analytics and CS	7,377	4.6%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$103,946 \$80K 118% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



Connecticut

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

95,324 NET TECH EMPLOYMENT¹

5.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$18.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.4% ECONOMIC IMPACT AS A % OF OVERALL

8,345 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

45,335 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

32.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



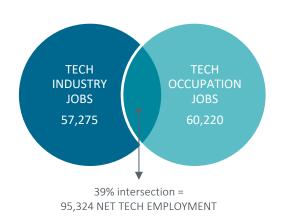
25th NET TECH EMPLOYMENT RANK

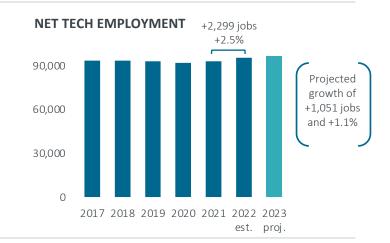
26th NET TECH EMPLOYMENT JOBS ADDED RANK

47th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

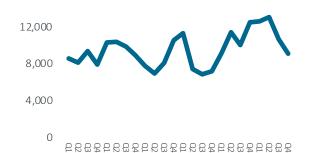
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



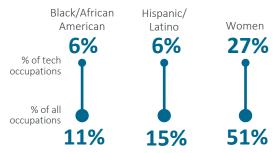
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	21,942	2.1%
IT Support Specialist and Repair Technicians	9,911	0.5%
Cybersecurity and Systems Engineers	8,380	1.0%
Network Engineers, Architects and Support	4,767	0.8%
Database, Data Science, Analytics and CS	2,735	2.2%
Emerging Tech, IT Project Mgt. and Other	1,561	2.9%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$99,809, \$80K 101% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Delaware

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

24,792 NET TECH EMPLOYMENT¹

5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.9% ECONOMIC IMPACT AS A % OF OVERALL

3,207 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

15,364 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

34.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



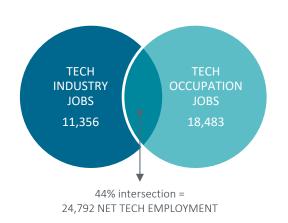
42nd NET TECH EMPLOYMENT RANK

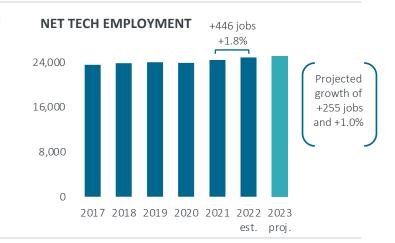
45th NET TECH EMPLOYMENT JOBS ADDED RANK

32nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



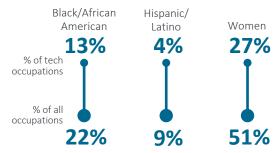
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	7,234	2.0%
Cybersecurity and Systems Engineers	3,130	1.0%
Network Engineers, Architects and Support	2,203	0.7%
IT Support Specialist and Repair Technicians	1,976	1.4%
Database, Data Science, Analytics and CS	1,249	1.5%
Emerging Tech, IT Project Mgt. and Other	1,100	1.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$103,329, \$80K 130% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



District of Columbia

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

70,554 NET TECH EMPLOYMENT¹

9.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$9.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.9% ECONOMIC IMPACT AS A % OF OVERALL

4,732 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

58,288 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

23.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



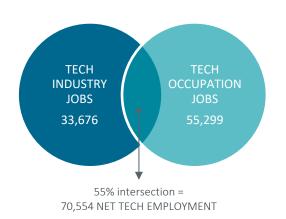
28th NET TECH EMPLOYMENT RANK

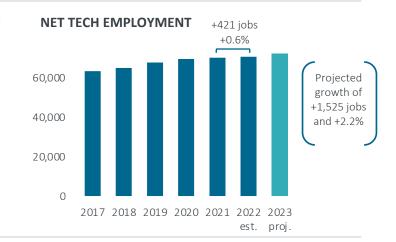
46th NET TECH EMPLOYMENT JOBS ADDED RANK

20th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



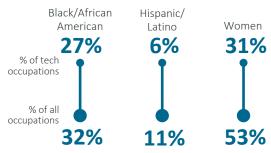
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Emerging Tech, IT Project Mgt. and Other	19,236	1.9%
Software, Programmers, Web and QA	14,133	3.0%
Cybersecurity and Systems Engineers	4,751	2.7%
IT Support Specialist and Repair Technicians	4,328	1.5%
Network Engineers, Architects and Support	3,544	1.3%
Database, Data Science, Analytics and CS	3,371	2.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$122,889, \$80K 51% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th most recent available



Florida

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

484,593 NET TECH EMPLOYMENT¹

4.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$79.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.4% ECONOMIC IMPACT AS A % OF OVERALL

38,796 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

198,199 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

24.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



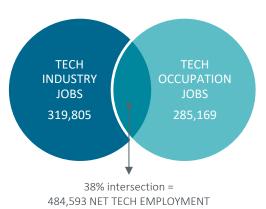
4th NET TECH EMPLOYMENT RANK

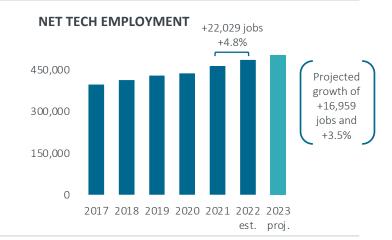
3rd NET TECH EMPLOYMENT JOBS ADDED RANK

38th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

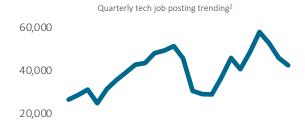
1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



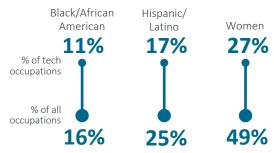
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	99,887	5.4%
IT Support Specialist and Repair Technicians	52,180	2.4%
Network Engineers, Architects and Support	39,232	2.7%
Cybersecurity and Systems Engineers	37,266	4.3%
Database, Data Science, Analytics and CS	14,002	4.8%
Emerging Tech, IT Project Mgt. and Other	13,823	4.6%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$81,533, \$80K 113% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



Georgia

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

294,133 NET TECH EMPLOYMENT¹

6.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$59.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.9% ECONOMIC IMPACT AS A % OF OVERALL

17,529 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

148,829 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



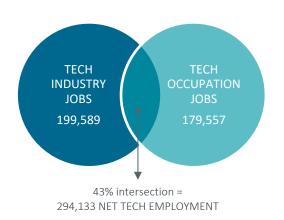
10th NET TECH EMPLOYMENT RANK

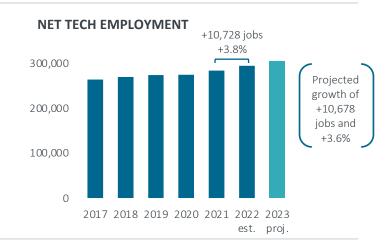
6th NET TECH EMPLOYMENT JOBS ADDED RANK

48th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



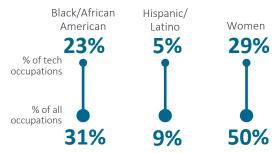
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	66,028	5.2%
IT Support Specialist and Repair Technicians	26,289	3.1%
Network Engineers, Architects and Support	22,468	2.9%
Cybersecurity and Systems Engineers	21,872	4.2%
Emerging Tech, IT Project Mgt. and Other	15,406	3.5%
Database, Data Science, Analytics and CS	11,160	4.4%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$96,197, \$80K 142% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



Hawaii

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

20,410 NET TECH EMPLOYMENT¹

3.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.5% ECONOMIC IMPACT AS A % OF OVERALL

2,159 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

13,578 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

23.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



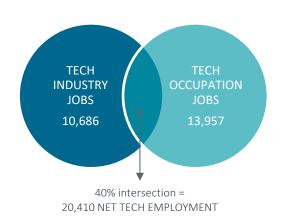
45th NET TECH EMPLOYMENT RANK

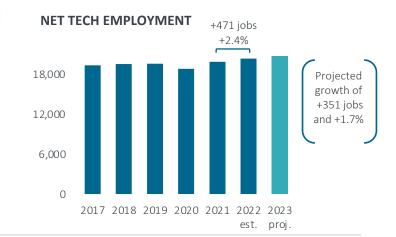
43rd NET TECH EMPLOYMENT JOBS ADDED RANK

44th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

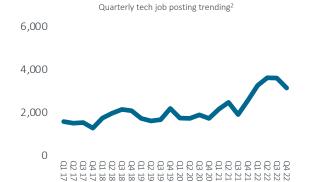
1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



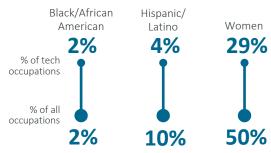
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,253	3.3%
Cybersecurity and Systems Engineers	2,495	1.5%
IT Support Specialist and Repair Technicians	2,440	0.8%
Network Engineers, Architects and Support	2,241	0.8%
Emerging Tech, IT Project Mgt. and Other	1,856	2.2%
Database, Data Science, Analytics and CS	485	2.7%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$86,864, \$80K 84% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Idaho

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

39,897 NET TECH EMPLOYMENT¹

4.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$6.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.7% ECONOMIC IMPACT AS A % OF OVERALL

4,524 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

33,070 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



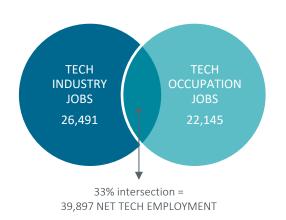
37th NET TECH EMPLOYMENT RANK

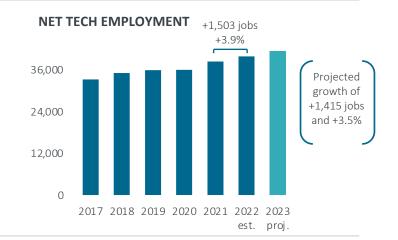
32nd NET TECH EMPLOYMENT JOBS ADDED RANK

22nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

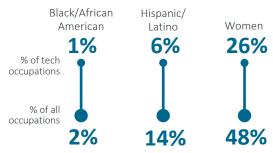
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	8,394	5.6%
IT Support Specialist and Repair Technicians	4,688	2.7%
Cybersecurity and Systems Engineers	2,971	4.7%
Network Engineers, Architects and Support	2,454	3.7%
Emerging Tech, IT Project Mgt. and Other	1,065	4.9%
Database, Data Science, Analytics and CS	738	6.0%

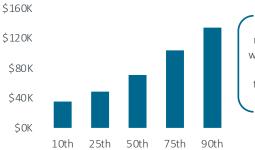
 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] OK



Estimated median tech wage \$70,490, 89% higher than median state wage⁵

> ⁵2021 data | most recent available



Illinois

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

325,685 NET TECH EMPLOYMENT¹

5.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$55.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.2% ECONOMIC IMPACT AS A % OF OVERALL

23,033 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

177,299 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



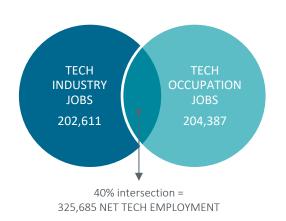
7th NET TECH EMPLOYMENT RANK

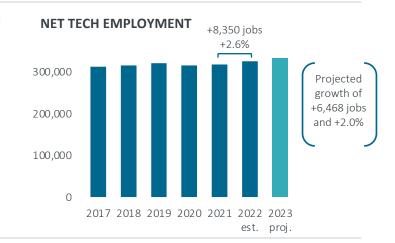
10th NET TECH EMPLOYMENT JOBS ADDED RANK

36th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



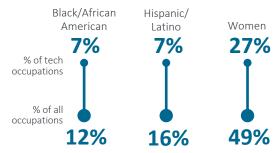
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	73,393	3.5%
Cybersecurity and Systems Engineers	30,792	1.9%
Network Engineers, Architects and Supp	oort 30,144	0.8%
IT Support Specialist and Repair Technic	ians 28,717	1.5%
Database, Data Science, Analytics and C	S 11,936	2.5%
Emerging Tech, IT Project Mgt. and Oth	er 7,992	2.9%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$90,986, \$80K 105% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Indiana

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

118,872 NET TECH EMPLOYMENT¹

3.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$15.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.0% ECONOMIC IMPACT AS A % OF OVERALL

9,299 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

54,198 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



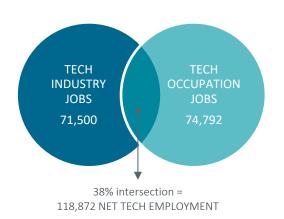
24th NET TECH EMPLOYMENT RANK

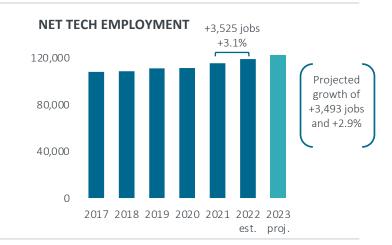
22nd NET TECH EMPLOYMENT JOBS ADDED RANK

30th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

18,000 12,000 6,000

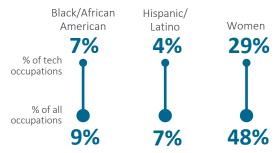
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	21,511	4.6%
IT Support Specialist and Repair Technicians	14,522	1.9%
Network Engineers, Architects and Support	12,515	1.6%
Cybersecurity and Systems Engineers	11,215	2.9%
Database, Data Science, Analytics and CS	4,184	3.9%
Emerging Tech, IT Project Mgt. and Other	4,084	3.3%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$77,140, \$80K 95% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



0

Iowa

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

65,906 NET TECH EMPLOYMENT¹

4.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$9.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.7% ECONOMIC IMPACT AS A % OF OVERALL

4,918 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

33,554 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

23.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



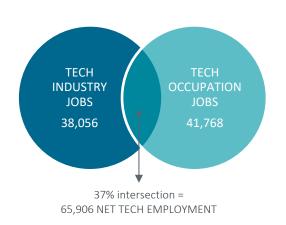
29th NET TECH EMPLOYMENT RANK

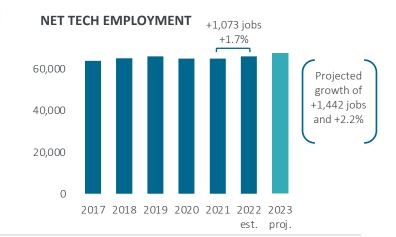
35th NET TECH EMPLOYMENT JOBS ADDED RANK

28th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



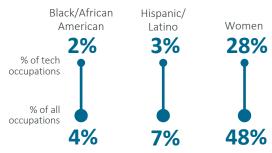
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	15,373	3.4%
Cybersecurity and Systems Engineers	6,528	2.7%
IT Support Specialist and Repair Technicians	6,070	1.7%
Network Engineers, Architects and Support	5,877	1.3%
Database, Data Science, Analytics and CS	2,476	3.8%
Emerging Tech, IT Project Mgt. and Other	1,449	3.6%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$83,728, \$80K 107% higher than median \$40K state wage⁵ ŚOK ⁵2021 data | 10th 25th 50th 75th 90th most recent available



Kansas

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

65,245 NET TECH EMPLOYMENT¹

4.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$10.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.7% ECONOMIC IMPACT AS A % OF OVERALL

5,543 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

42,621 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



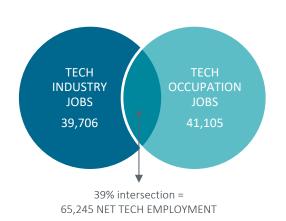
30th NET TECH EMPLOYMENT RANK

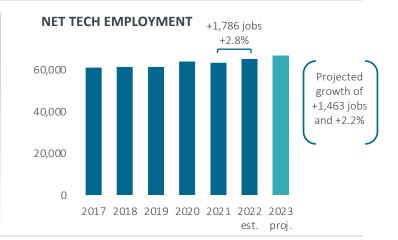
31st NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

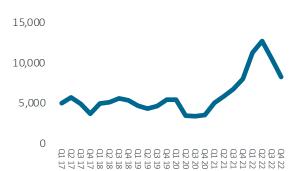
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



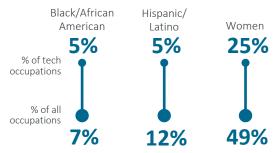
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	14,899	3.2%
IT Support Specialist and Repair Technicians	7,190	1.2%
Network Engineers, Architects and Support	6,536	0.8%
Cybersecurity and Systems Engineers	6,014	1.8%
Database, Data Science, Analytics and CS	1,431	3.3%
Emerging Tech, IT Project Mgt. and Other	1,395	3.6%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K \$80K

\$40K ŚOK 10th 25th 50th 75th 90th

median tech wage \$78,880, 105% higher than median state wage⁵

> 52021 data I most recent available



Kentucky

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

64,719 NET TECH EMPLOYMENT¹

3.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$7.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.4% ECONOMIC IMPACT AS A % OF OVERALL

7,242 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

27,951 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



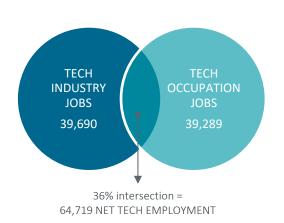
31st NET TECH EMPLOYMENT RANK

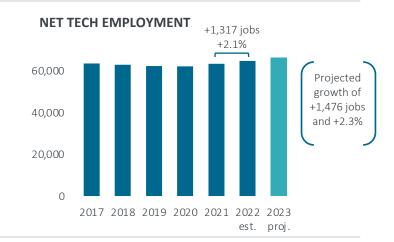
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

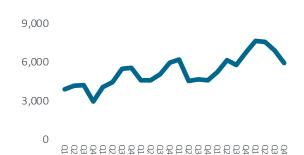
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



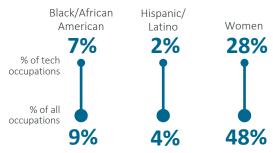
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	10,849	4.3%
IT Support Specialist and Repair Technicians	8,242	1.2%
Network Engineers, Architects and Support	6,573	1.4%
Cybersecurity and Systems Engineers	5,048	2.8%
Database, Data Science, Analytics and CS	2,821	3.4%
Emerging Tech, IT Project Mgt. and Other	2,750	2.5%

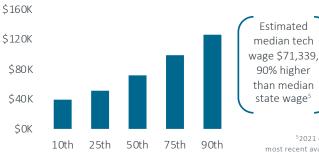
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]







Louisiana

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

48,186 NET TECH EMPLOYMENT¹

2.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$5.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

2.3% ECONOMIC IMPACT AS A % OF OVERALL

5,326 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

29,197 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

21.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



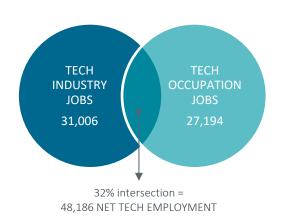
36th NET TECH EMPLOYMENT RANK

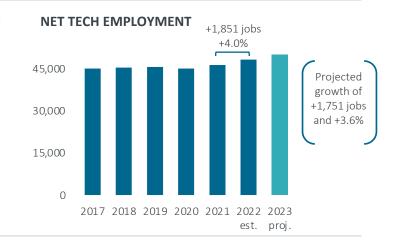
29th NET TECH EMPLOYMENT JOBS ADDED RANK

15th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

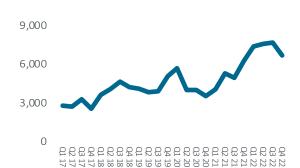
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



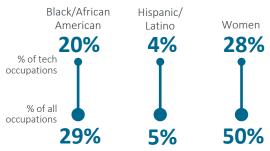
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	6,583	7.1%
Emerging Tech, IT Project Mgt. and Other	4,708	2.0%
IT Support Specialist and Repair Technicians	4,664	3.2%
Network Engineers, Architects and Support	3,829	2.4%
Cybersecurity and Systems Engineers	3,607	3.7%
Database, Data Science, Analytics and CS	1,111	4.9%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$68,661, \$80K 86% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



Maine

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

24,769 NET TECH EMPLOYMENT¹

3.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

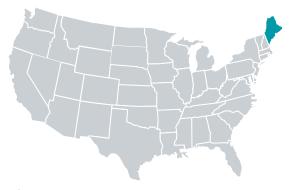
\$3.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.3% ECONOMIC IMPACT AS A % OF OVERALL

2,897 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

12,550 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



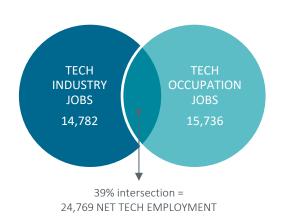
43rd NET TECH EMPLOYMENT RANK

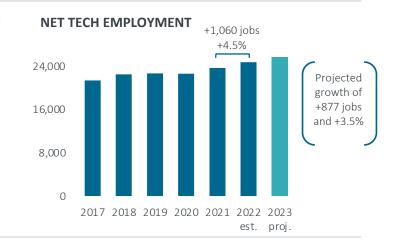
37th NET TECH EMPLOYMENT JOBS ADDED RANK

50th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

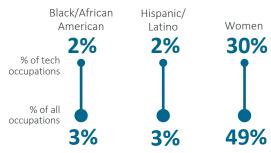
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	4,709	5.2%
IT Support Specialist and Repair Technicians	2,814	1.9%
Cybersecurity and Systems Engineers	2,512	3.1%
Network Engineers, Architects and Support	2,004	2.7%
Database, Data Science, Analytics and CS	1,174	4.2%
Emerging Tech, IT Project Mgt. and Other	820	4.2%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$79,878, \$80K 92% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Maryland

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

222,031 NET TECH EMPLOYMENT¹

7.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$36.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.9% ECONOMIC IMPACT AS A % OF OVERALL

14,227 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

93,547 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



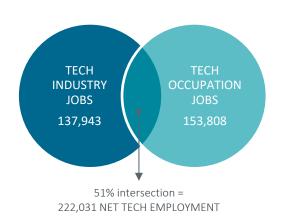
15th NET TECH EMPLOYMENT RANK

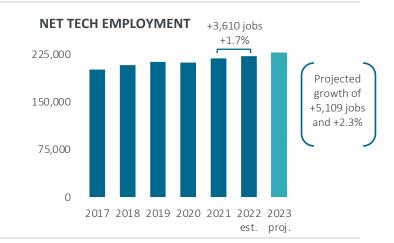
21st NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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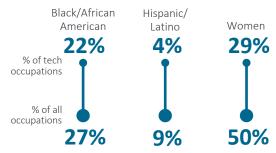
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	48,960	3.2%
Emerging Tech, IT Project Mgt. and Other	24,590	2.1%
Network Engineers, Architects and Support	23,323	0.8%
Cybersecurity and Systems Engineers	21,069	2.7%
IT Support Specialist and Repair Technicians	12,717	1.9%
Database, Data Science, Analytics and CS	7,448	3.2%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$109,357, 123% higher \$80K than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th

most recent available



Massachusetts

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

318,631 NET TECH EMPLOYMENT¹

8.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$80.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

12.9% ECONOMIC IMPACT AS A % OF OVERALL

17,727 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

135,225 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

39.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



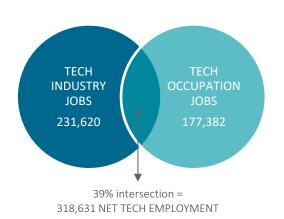
NET TECH EMPLOYMENT RANK

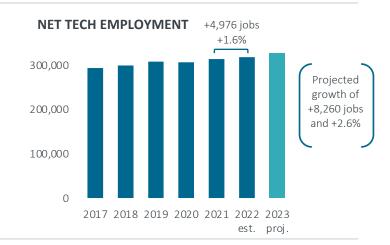
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

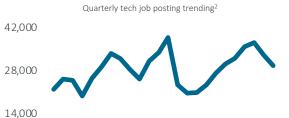
DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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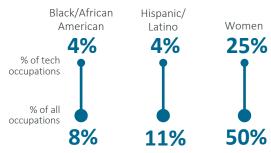
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	78,988	3.9%
IT Support Specialist and Repair Technicians	20,517	2.2%
Cybersecurity and Systems Engineers	18,960	3.4%
Network Engineers, Architects and Support	17,284	2.4%
Database, Data Science, Analytics and CS	8,237	4.5%
Emerging Tech, IT Project Mgt. and Other	8,122	3.1%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$112,912, 108% higher \$80K than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th

most recent available



0

Michigan

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

202,190 NET TECH EMPLOYMENT¹

4.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$25.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.5% ECONOMIC IMPACT AS A % OF OVERALL

13,907 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

114,507 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



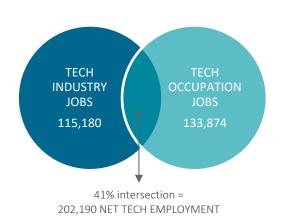
16th NET TECH EMPLOYMENT RANK

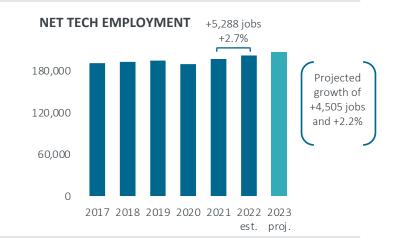
14th NET TECH EMPLOYMENT JOBS ADDED RANK

18th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

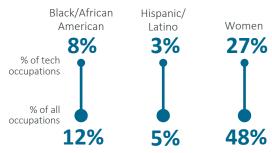
	2022	2023 % Change ³	
Software, Programmers, Web and QA	51,380	3.3%	
IT Support Specialist and Repair Technicians	24,249	1.1%	
Cybersecurity and Systems Engineers	18,617	2.2%	
Network Engineers, Architects and Support	12,456	1.8%	
Emerging Tech, IT Project Mgt. and Other	7,576	2.5%	
Database, Data Science, Analytics and CS	5,669	4.3%	

 $^{3}\mbox{Projected}$ growth rate for 2023

ŚOK

10th

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K

75th

90th

most recent available



Minnesota

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

187,836 NET TECH EMPLOYMENT¹

6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$31.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.7% ECONOMIC IMPACT AS A % OF OVERALL

11,332 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

72,547 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



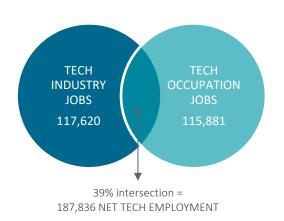
18th NET TECH EMPLOYMENT RANK

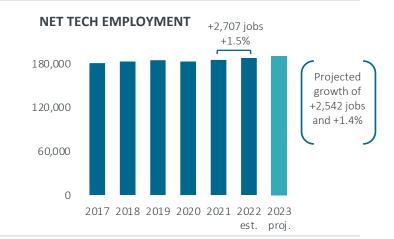
24th NET TECH EMPLOYMENT JOBS ADDED RANK

24th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



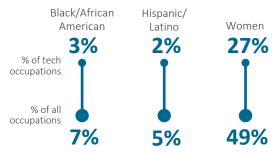
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	47,126	2.5%
Cybersecurity and Systems Engineers	17,648	1.5%
Network Engineers, Architects and Support	16,655	0.6%
IT Support Specialist and Repair Technicians	14,911	1.0%
Emerging Tech, IT Project Mgt. and Other	4,890	1.8%
Database, Data Science, Analytics and CS	4,325	2.4%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$93,196, \$80K 98% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



Mississippi

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

28,609 NET TECH EMPLOYMENT¹

2.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

ECONOMIC IMPACT AS A % OF OVERALL

3,129 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

14,709 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



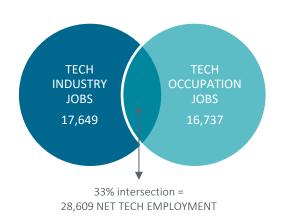
NET TECH EMPLOYMENT RANK

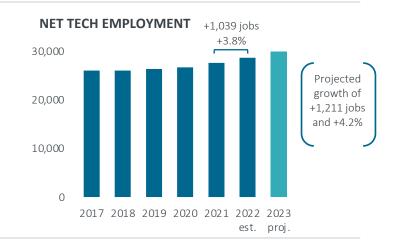
38th NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

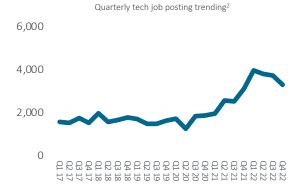
DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



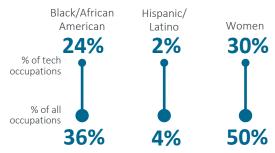
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	4,302	6.7%
IT Support Specialist and Repair Technicians	3,172	3.2%
Cybersecurity and Systems Engineers	2,708	3.8%
Network Engineers, Architects and Support	2,530	3.0%
Database, Data Science, Analytics and CS	1,266	3.9%
Emerging Tech, IT Project Mgt. and Other	1,251	4.2%

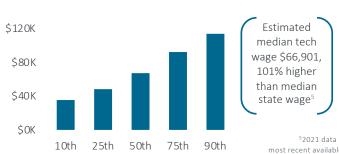
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





Missouri

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

153,419 NET TECH EMPLOYMENT¹

5.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$22.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.4% ECONOMIC IMPACT AS A % OF OVERALL

11,028 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

73,150 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



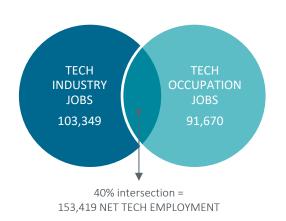
19th NET TECH EMPLOYMENT RANK

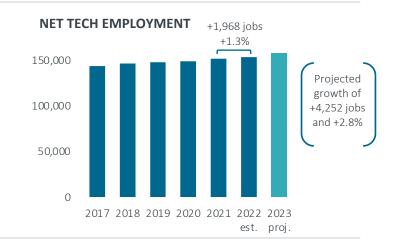
27th NET TECH EMPLOYMENT JOBS ADDED RANK

16th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



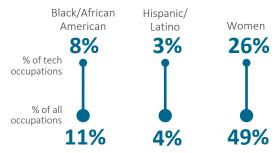
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	30,055	4.1%
IT Support Specialist and Repair Technicians	18,454	1.4%
Network Engineers, Architects and Support	14,196	1.2%
Cybersecurity and Systems Engineers	10,425	2.8%
Emerging Tech, IT Project Mgt. and Other	6,016	2.5%
Database, Data Science, Analytics and CS	5,273	3.0%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$78,245, \$80K 101% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th most recent available



Montana

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

16,971 NET TECH EMPLOYMENT¹

3.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$2.2b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.7% ECONOMIC IMPACT AS A % OF OVERALL

2,860 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

5,225 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

19.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



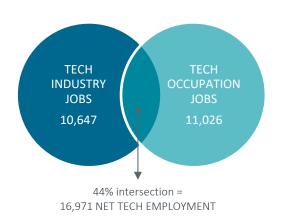
46th NET TECH EMPLOYMENT RANK

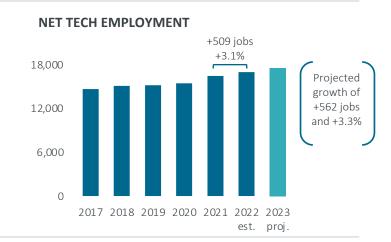
42nd NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

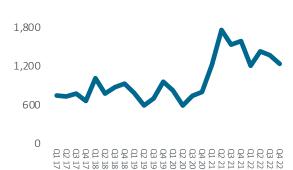
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



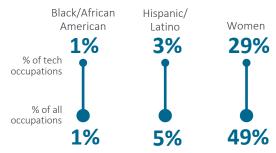
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,477	4.5%
IT Support Specialist and Repair Technicians	2,111	2.1%
Network Engineers, Architects and Support	1,990	1.4%
Emerging Tech, IT Project Mgt. and Other	852	3.3%
Cybersecurity and Systems Engineers	838	5.4%
Database, Data Science, Analytics and CS	367	4.9%

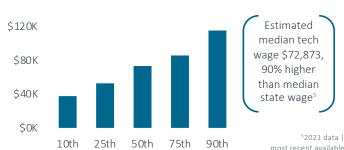
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



most recent available



Nebraska

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

52,556 NET TECH EMPLOYMENT¹

5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$7.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.2% ECONOMIC IMPACT AS A % OF OVERALL

4,014 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

26,033 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



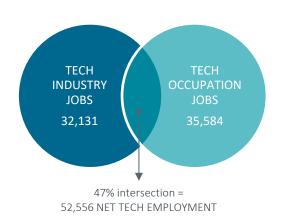
34th NET TECH EMPLOYMENT RANK

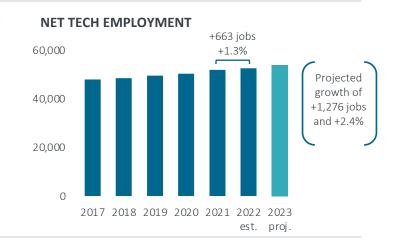
41st NET TECH EMPLOYMENT JOBS ADDED RANK

21st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

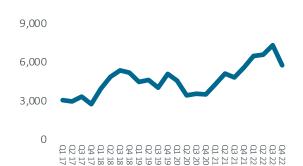
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



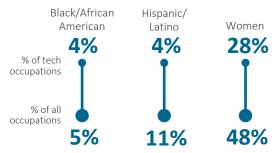
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	11,542	3.9%
Network Engineers, Architects and Suppo	rt 4,665	0.7%
IT Support Specialist and Repair Technicia	ns 4,621	1.5%
Cybersecurity and Systems Engineers	4,538	1.8%
Emerging Tech, IT Project Mgt. and Other	4,461	0.9%
Database, Data Science, Analytics and CS	1,934	2.3%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$81,479, \$80K 107% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



Nevada

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

48,595 NET TECH EMPLOYMENT¹

3.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$8.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

ECONOMIC IMPACT AS A % OF OVERALL

5,000 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

37,554 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



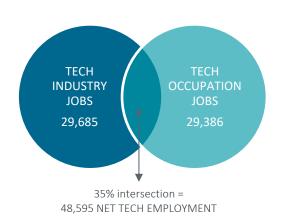
35th NET TECH EMPLOYMENT RANK

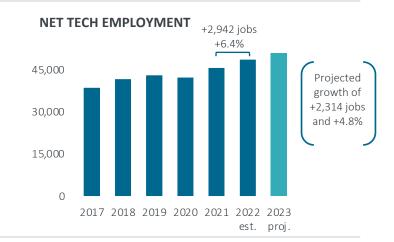
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending² 12,000 8,000 4,000

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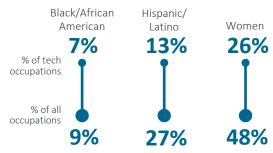
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	8,613	6.7%
IT Support Specialist and Repair Technicians	7,621	2.9%
Network Engineers, Architects and Support	3,883	4.0%
Emerging Tech, IT Project Mgt. and Other	2,905	3.8%
Cybersecurity and Systems Engineers	2,515	6.6%
Database, Data Science, Analytics and CS	1,472	5.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$75,778, \$80K 97% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th

most recent available



New Hampshire

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

56,748 NET TECH EMPLOYMENT¹

7.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$12.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

12.6% ECONOMIC IMPACT AS A % OF OVERALL

5,871 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

15,979 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

32.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



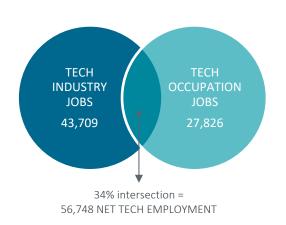
33rd NET TECH EMPLOYMENT RANK

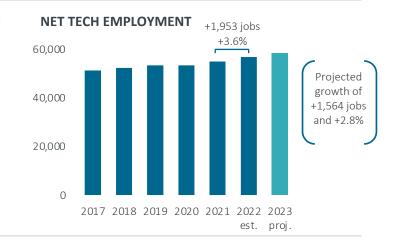
28th NET TECH EMPLOYMENT JOBS ADDED RANK

19th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



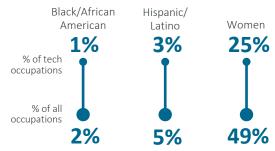
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	10,362	4.5%
IT Support Specialist and Repair Technicians	4,096	2.7%
Network Engineers, Architects and Support	3,714	2.3%
Cybersecurity and Systems Engineers	3,362	3.6%
Emerging Tech, IT Project Mgt. and Other	1,036	4.7%
Database, Data Science, Analytics and CS	938	5.0%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$95,179, \$80K 108% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



New Jersey

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

271,312 NET TECH EMPLOYMENT¹

6.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$52.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.8% ECONOMIC IMPACT AS A % OF OVERALL

16,217 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

122,660 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



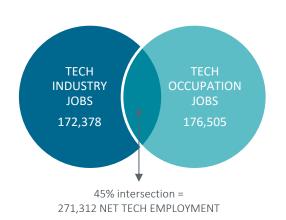
12th NET TECH EMPLOYMENT RANK

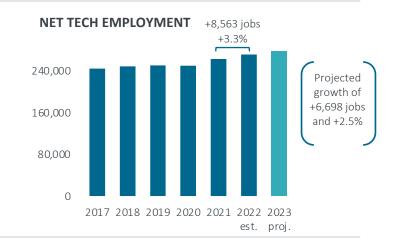
9th NET TECH EMPLOYMENT JOBS ADDED RANK

42nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



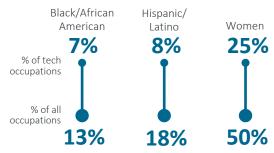
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	70,925	3.5%
Network Engineers, Architects and Support	22,488	1.4%
IT Support Specialist and Repair Technicians	19,951	2.0%
Cybersecurity and Systems Engineers	19,905	3.0%
Emerging Tech, IT Project Mgt. and Other	12,210	2.1%
Database, Data Science, Analytics and CS	8,167	3.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$113,345, 132% higher \$80K than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



New Mexico

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

35,043 NET TECH EMPLOYMENT¹

3.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$4.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.7% ECONOMIC IMPACT AS A % OF OVERALL

3,124 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

14,671 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



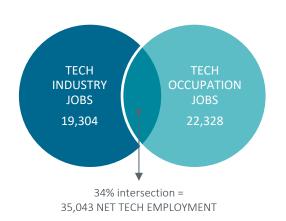
39th NET TECH EMPLOYMENT RANK

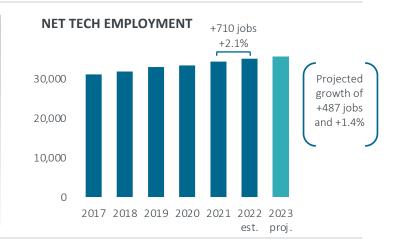
40th NET TECH EMPLOYMENT JOBS ADDED RANK

9th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

6,000 4,000 2,000

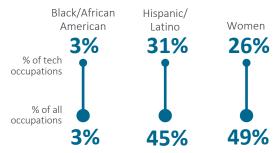
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	5,432	3.9%
IT Support Specialist and Repair Technicians	3,978	0.8%
Network Engineers, Architects and Support	3,675	0.5%
Cybersecurity and Systems Engineers	3,455	2.4%
Database, Data Science, Analytics and CS	1,839	2.5%
Emerging Tech, IT Project Mgt. and Other	1,105	3.1%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$78,426, \$80K 108% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



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New York

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

535,457 NET TECH EMPLOYMENT¹

5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$146.2b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.1% ECONOMIC IMPACT AS A % OF OVERALL

24,758 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

192,890 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



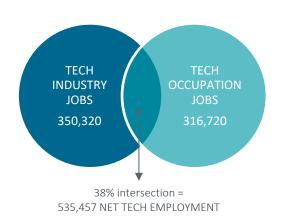
3rd NET TECH EMPLOYMENT RANK

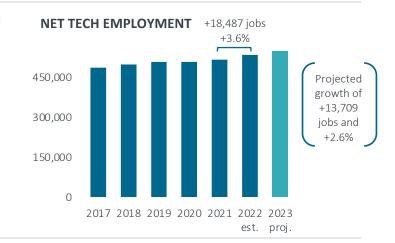
4th NET TECH EMPLOYMENT JOBS ADDED RANK

51st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



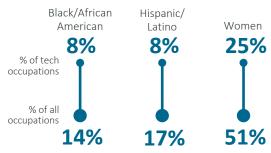
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	126,214	3.7%
IT Support Specialist and Repair Technicians	47,334	1.3%
Network Engineers, Architects and Support	46,688	0.9%
Cybersecurity and Systems Engineers	34,153	2.7%
Database, Data Science, Analytics and CS	21,236	3.1%
Emerging Tech, IT Project Mgt. and Other	7,925	4.6%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$200K Estimated \$150K median tech wage \$105,767, \$100K 112% higher than median \$50K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



North Carolina

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

293,284 NET TECH EMPLOYMENT¹

5.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$47.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.5% ECONOMIC IMPACT AS A % OF OVERALL

20,522 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

152,665 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

34.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



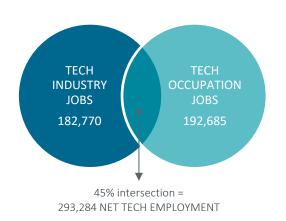
11th NET TECH EMPLOYMENT RANK

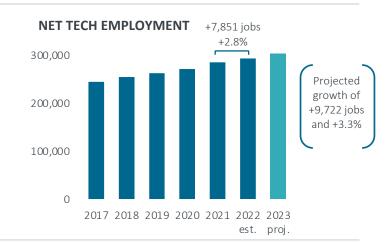
11th NET TECH EMPLOYMENT JOBS ADDED RANK

26th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



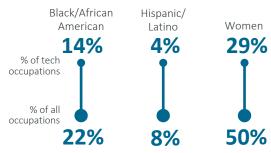
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	76,424	4.4%
Cybersecurity and Systems Engineers	30,269	3.0%
IT Support Specialist and Repair Technicians	28,695	2.6%
Network Engineers, Architects and Support	20,122	2.5%
Database, Data Science, Analytics and CS	10,708	4.3%
Emerging Tech, IT Project Mgt. and Other	7,343	4.4%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$98,640, \$80K 151% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th most recent available

North Dakota

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

13,272 NET TECH EMPLOYMENT¹

3.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

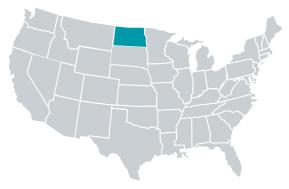
\$2.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.1% ECONOMIC IMPACT AS A % OF OVERALL

1,219 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

5,834 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



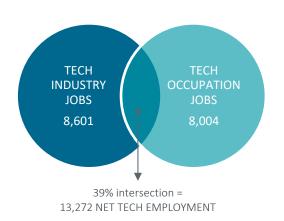
49th NET TECH EMPLOYMENT RANK

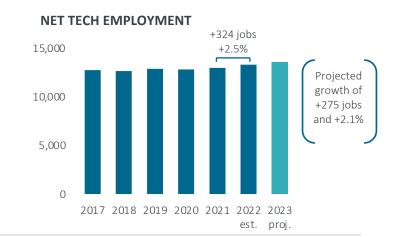
48th NET TECH EMPLOYMENT JOBS ADDED RANK

3rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

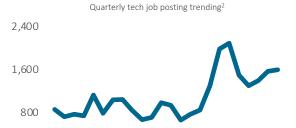
4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



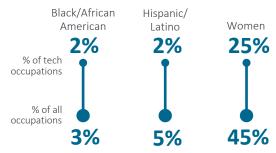
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	2,528	2.4%
IT Support Specialist and Repair Technicians	1,858	0.9%
Network Engineers, Architects and Support	1,456	1.6%
Cybersecurity and Systems Engineers	695	3.8%
Emerging Tech, IT Project Mgt. and Other	593	1.4%
Database, Data Science, Analytics and CS	273	2.8%

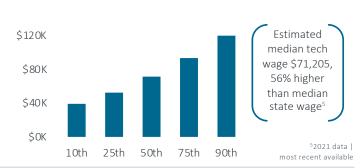
 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





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Ohio

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

270,462 NET TECH EMPLOYMENT¹

4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$32.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.5% ECONOMIC IMPACT AS A % OF OVERALL

18,202 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

117,200 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



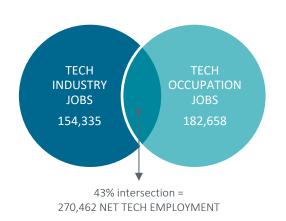
13th NET TECH EMPLOYMENT RANK

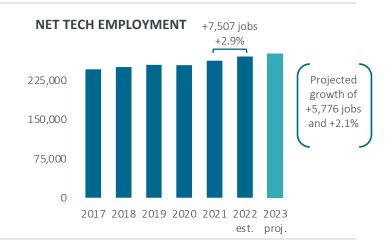
12th NET TECH EMPLOYMENT JOBS ADDED RANK

39th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

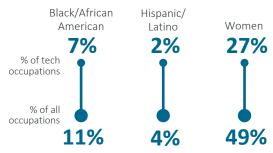
LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	66,329	3.1%
IT Support Specialist and Repair Technicians	30,600	1.0%
Network Engineers, Architects and Support	27,762	0.7%
Cybersecurity and Systems Engineers	27,574	1.8%
Database, Data Science, Analytics and CS	8,011	3.1%
Emerging Tech, IT Project Mgt. and Other	7,859	2.7%

 $^{3}\mbox{Projected}$ growth rate for 2023

10th

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$40K \$0K

75th

90th

⁵2021 data | most recent available



0

50th

25th

Oklahoma

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

57,807 NET TECH EMPLOYMENT¹

3.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$6.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.0% ECONOMIC IMPACT AS A % OF OVERALL

4,749 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

34,733 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

22.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



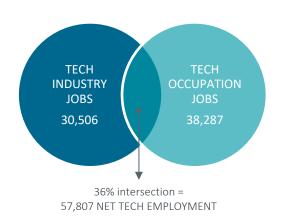
32nd NET TECH EMPLOYMENT RANK

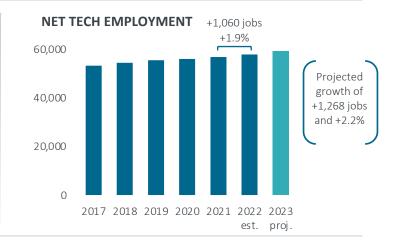
36th NET TECH EMPLOYMENT JOBS ADDED RANK

8th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

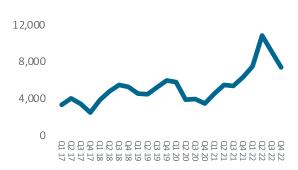
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



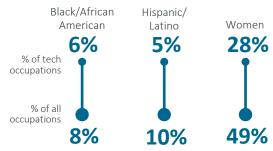
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	10,685	3.8%
IT Support Specialist and Repair Technicians	7,603	1.5%
Network Engineers, Architects and Support	6,505	0.9%
Cybersecurity and Systems Engineers	4,419	2.9%
Database, Data Science, Analytics and CS	3,062	2.9%
Emerging Tech, IT Project Mgt. and Other	2,344	3.3%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$73,830, \$80K 99% higher than median \$40K state wage⁵ ŚOK 10th 75th 90th most recent available



Oregon

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

139,350 NET TECH EMPLOYMENT¹

6.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$28.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.9% ECONOMIC IMPACT AS A % OF OVERALL

8,023 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

52,056 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



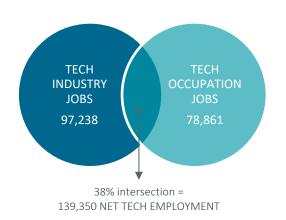
21st NET TECH EMPLOYMENT RANK

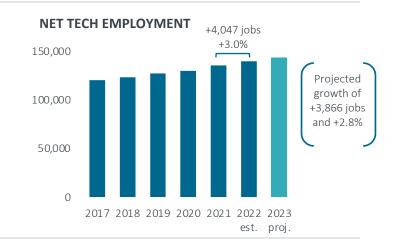
19th NET TECH EMPLOYMENT JOBS ADDED RANK

46th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

18,000 12,000 6,000

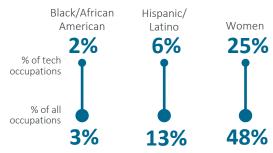
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	27,674	3.8%
IT Support Specialist and Repair Technicia	ans 10,558	2.1%
Network Engineers, Architects and Suppo	ort 9,479	1.7%
Cybersecurity and Systems Engineers	8,811	2.7%
Database, Data Science, Analytics and CS	3,300	4.0%
Emerging Tech, IT Project Mgt. and Other	3,274	3.6%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$97,171, \$80K 115% higher than median \$40K state wage⁵ ŚOK ⁵2021 data | 10th 25th 50th 75th 90th most recent available



Pennsylvania

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

300,447 NET TECH EMPLOYMENT¹

4.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$51.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.3% ECONOMIC IMPACT AS A % OF OVERALL

18,456 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

105,980 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



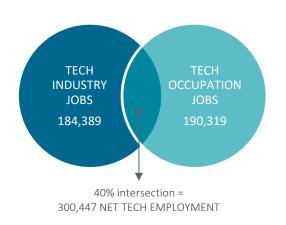
9th NET TECH EMPLOYMENT RANK

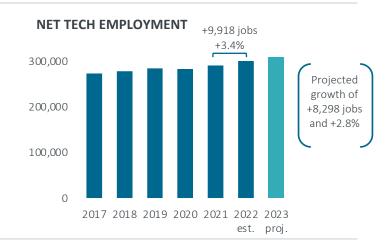
8th NET TECH EMPLOYMENT JOBS ADDED RANK

29th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



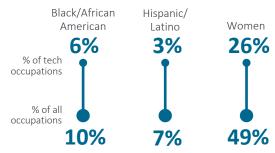
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	64,572	4.2%
IT Support Specialist and Repair Technicians	32,290	1.5%
Cybersecurity and Systems Engineers	22,783	3.0%
Network Engineers, Architects and Support	22,287	1.9%
Emerging Tech, IT Project Mgt. and Other	17,234	2.0%
Database, Data Science, Analytics and CS	11,854	3.2%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$86,082, \$80K 100% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th



Rhode Island

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

27,806 NET TECH EMPLOYMENT¹

5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.2% ECONOMIC IMPACT AS A % OF OVERALL

3,552 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

15,153 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

33.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



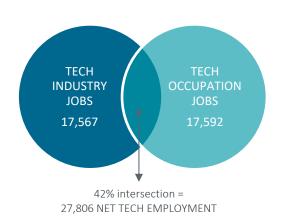
41st NET TECH EMPLOYMENT RANK

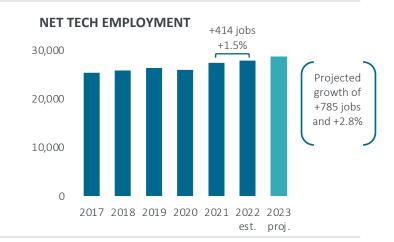
47th NET TECH EMPLOYMENT JOBS ADDED RANK

13th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



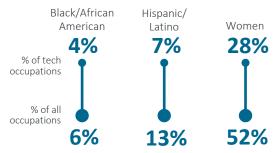
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³	
Software, Programmers, Web and QA	5,251	4.3%	
Network Engineers, Architects and Support	3,042	1.3%	
Cybersecurity and Systems Engineers	2,630	2.7%	
IT Support Specialist and Repair Technicians	2,304	2.2%	
Emerging Tech, IT Project Mgt. and Other	1,430	2.4%	
Database, Data Science, Analytics and CS	1,387	3.1%	

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$94,860, \$80K 99% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th most recent available



South Carolina

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

86,446 NET TECH EMPLOYMENT¹

3.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$12.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.8% ECONOMIC IMPACT AS A % OF OVERALL

9,457 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

31,019 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



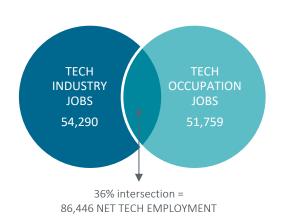
27th NET TECH EMPLOYMENT RANK

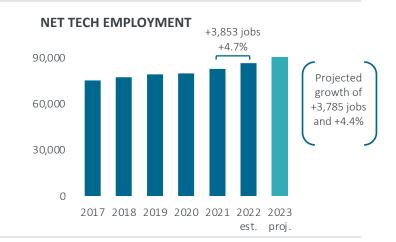
20th NET TECH EMPLOYMENT JOBS ADDED RANK

7th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



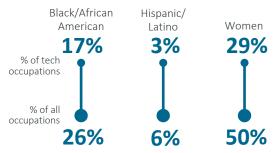
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	14,256	6.9%
Cybersecurity and Systems Engineers	10,562	3.3%
IT Support Specialist and Repair Technicians	10,394	2.8%
Network Engineers, Architects and Support	6,930	3.0%
Emerging Tech, IT Project Mgt. and Other	3,006	4.6%
Database, Data Science, Analytics and CS	2,323	6.0%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$78,480, \$80K 113% higher than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th most recent available



South Dakota

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

15,855 NET TECH EMPLOYMENT¹

3.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

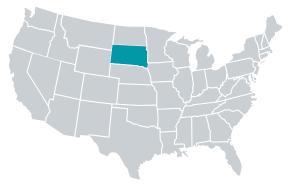
\$2.2b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.7% ECONOMIC IMPACT AS A % OF OVERALL

1,887 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

7,664 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

38.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



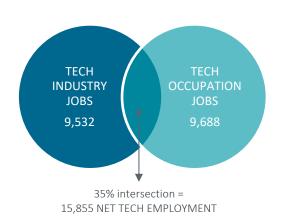
NET TECH EMPLOYMENT RANK

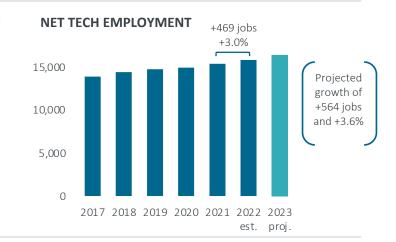
NET TECH EMPLOYMENT JOBS ADDED RANK 44th

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

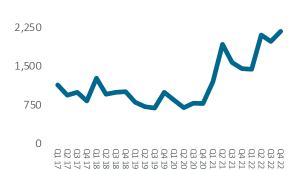
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



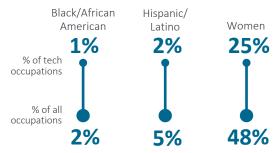
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Network Engineers, Architects and Support	3,206	1.6%
Software, Programmers, Web and QA	2,677	5.1%
IT Support Specialist and Repair Technicians	1,397	2.8%
Cybersecurity and Systems Engineers	1,325	3.9%
Emerging Tech, IT Project Mgt. and Other	357	4.4%
Database, Data Science, Analytics and CS	283	4.5%

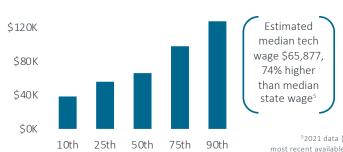
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



most recent available



Tennessee

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

123,909 NET TECH EMPLOYMENT¹

3.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$18.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.4% ECONOMIC IMPACT AS A % OF OVERALL

13,063 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

59,628 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

34.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



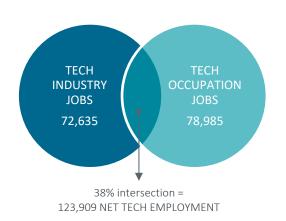
22nd NET TECH EMPLOYMENT RANK

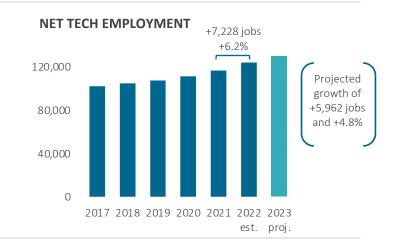
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

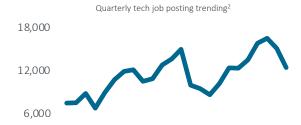
DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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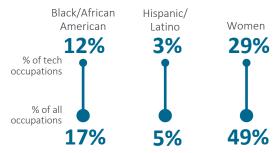
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	21,867	7.5%
Emerging Tech, IT Project Mgt. and Other	12,731	2.9%
Network Engineers, Architects and Support	11,445	3.1%
IT Support Specialist and Repair Technicians	10,285	4.5%
Cybersecurity and Systems Engineers	10,171	4.7%
Database, Data Science, Analytics and CS	3,404	5.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$74,837, \$80K 97% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



Texas

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

867,278 NET TECH EMPLOYMENT¹

6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$158.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.7% ECONOMIC IMPACT AS A % OF OVERALL

44,330 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

394,209 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



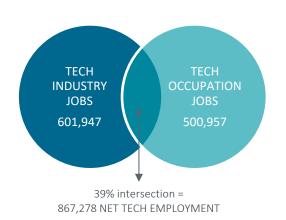
2nd NET TECH EMPLOYMENT RANK

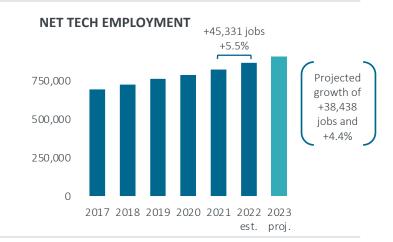
1st NET TECH EMPLOYMENT JOBS ADDED RANK

45th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

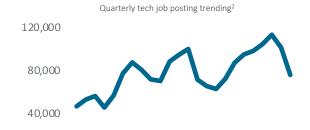
1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



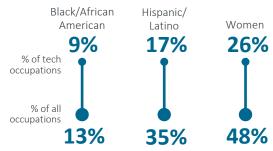
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³	
Software, Programmers, Web and QA	170,954	6.6%	
IT Support Specialist and Repair Technicians	85,156	3.6%	
Cybersecurity and Systems Engineers	72,566	4.9%	
Network Engineers, Architects and Support	63,619	3.8%	
Emerging Tech, IT Project Mgt. and Other	36,843	4.4%	
Database, Data Science, Analytics and CS	21,656	5.8%	

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$89,833, \$80K 123% higher than median \$40K state wage⁵ ŚOK ⁵2021 data | 10th 25th 50th 75th 90th most recent available



0

Utah

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

123,450 NET TECH EMPLOYMENT¹

7.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$21.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.0% ECONOMIC IMPACT AS A % OF OVERALL

9,286 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

41,005 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



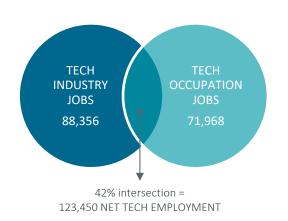
23rd NET TECH EMPLOYMENT RANK

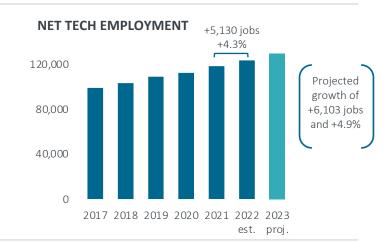
15th NET TECH EMPLOYMENT JOBS ADDED RANK

12th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



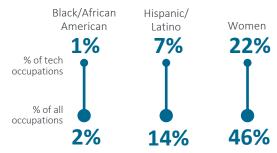
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	29,987	6.4%
IT Support Specialist and Repair Technicia	ans 12,998	3.9%
Emerging Tech, IT Project Mgt. and Othe	r 8,117	4.0%
Network Engineers, Architects and Suppo	ort 5,655	5.3%
Database, Data Science, Analytics and CS	4,616	5.7%
Cybersecurity and Systems Engineers	4,127	8.3%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$83,891, \$80K 108% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Vermont

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

16,687 NET TECH EMPLOYMENT¹

5.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

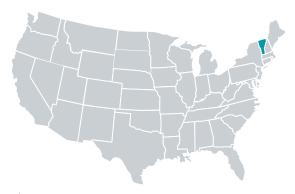
\$2.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.0% ECONOMIC IMPACT AS A % OF OVERALL

2,454 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

14,084 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



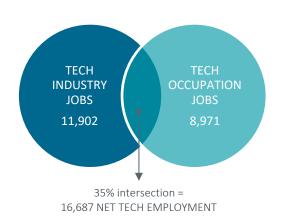
47th NET TECH EMPLOYMENT RANK

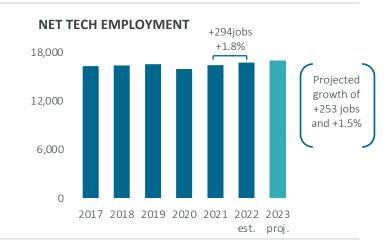
50th NET TECH EMPLOYMENT JOBS ADDED RANK

4th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

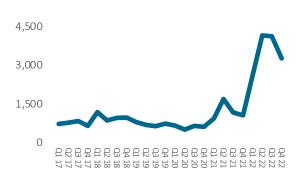
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



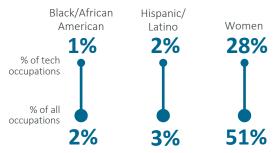
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	2,675	4.4%
IT Support Specialist and Repair Technicians	1,963	1.7%
Cybersecurity and Systems Engineers	1,034	3.2%
Network Engineers, Architects and Support	1,031	2.2%
Emerging Tech, IT Project Mgt. and Other	723	3.3%
Database, Data Science, Analytics and CS	453	3.7%

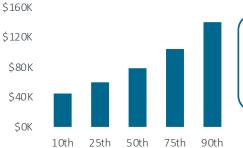
 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] OK



Estimated median tech wage \$78,290, 75% higher than median state wage⁵

> ⁵2021 data | most recent available



Virginia

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

358,713 NET TECH EMPLOYMENT¹

8.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$61.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.8% ECONOMIC IMPACT AS A % OF OVERALL

23,483 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

186,340 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



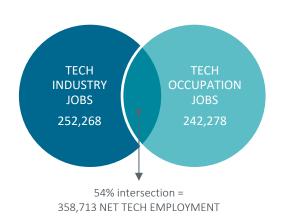
5th NET TECH EMPLOYMENT RANK

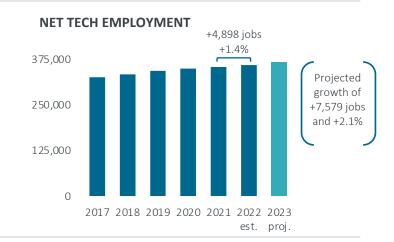
18th NET TECH EMPLOYMENT JOBS ADDED RANK

40th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

40,000

20,000

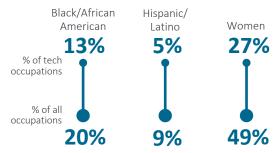
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	94,553	3.1%
Cybersecurity and Systems Engineers	41,609	2.5%
Network Engineers, Architects and Support	32,523	1.0%
IT Support Specialist and Repair Technicians	25,641	1.9%
Database, Data Science, Analytics and CS	15,985	2.4%
Emerging Tech, IT Project Mgt. and Other	14,056	2.6%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$109,646, 138% higher \$80K than median \$40K state wage⁵ ŚOK 10th 25th 75th 90th

Washington

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

347,093 NET TECH EMPLOYMENT¹

9.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$138.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

21.8% ECONOMIC IMPACT AS A % OF OVERALL

18,638 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

116,015 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

42.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



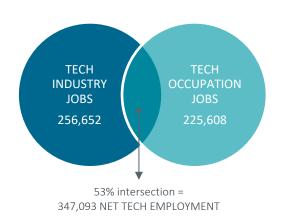
6th NET TECH EMPLOYMENT RANK

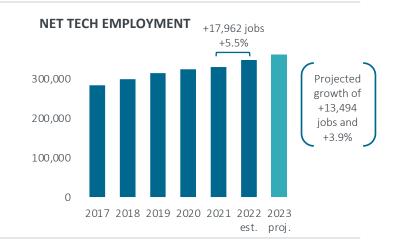
5th NET TECH EMPLOYMENT JOBS ADDED RANK

35th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



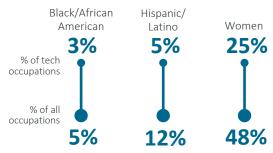
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³	
Software, Programmers, Web and QA	124,417	4.3%	
IT Support Specialist and Repair Technicians	21,723	3.3%	
Cybersecurity and Systems Engineers	20,962	4.1%	
Network Engineers, Architects and Support	16,296	3.6%	
Emerging Tech, IT Project Mgt. and Other	14,626	3.1%	
Database, Data Science, Analytics and CS	9,936	4.8%	

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$129,955, 157% higher \$80K than median state wage⁵ \$40K ŚOK 10th 25th 75th 90th



West Virginia

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

20,506 NET TECH EMPLOYMENT¹

NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$2.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

ECONOMIC IMPACT AS A % OF OVERALL

2,467 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

4,957 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



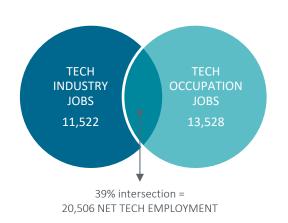
NET TECH EMPLOYMENT RANK

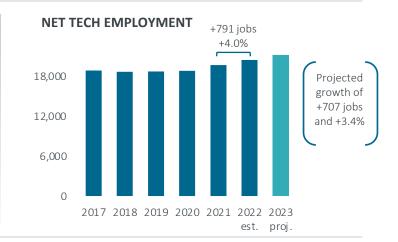
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

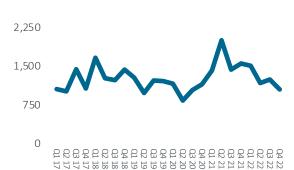
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



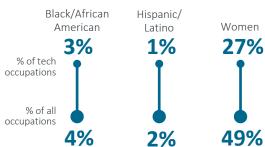
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,733	5.5%
IT Support Specialist and Repair Technicians	2,777	2.0%
Emerging Tech, IT Project Mgt. and Other	2,027	3.1%
Network Engineers, Architects and Support	1,940	2.2%
Cybersecurity and Systems Engineers	1,340	4.2%
Database, Data Science, Analytics and CS	574	3.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$68,862, \$80K 90% higher than median \$40K state wage⁵ ŚOK 10th 75th 90th



Wisconsin

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

140,727 NET TECH EMPLOYMENT¹

4.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$21.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.0% ECONOMIC IMPACT AS A % OF OVERALL

8,877 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

58,539 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



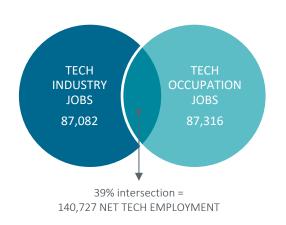
NET TECH EMPLOYMENT RANK

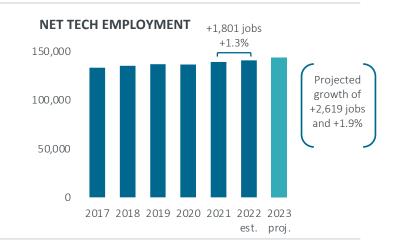
30thNET TECH EMPLOYMENT JOBS ADDED RANK

14th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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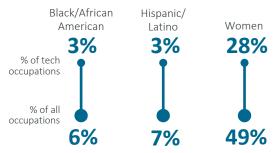
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	32,339	3.1%
Network Engineers, Architects and Support	14,197	1.0%
IT Support Specialist and Repair Technicians	13,623	1.3%
Cybersecurity and Systems Engineers	13,412	2.0%
Database, Data Science, Analytics and CS	3,983	3.0%
Emerging Tech, IT Project Mgt. and Other	3,520	2.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$80,564, \$80K 89% higher than median \$40K state wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th

most recent available



Wyoming

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

6,348 NET TECH EMPLOYMENT¹

2.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

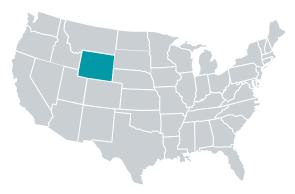
\$1.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

2.6% ECONOMIC IMPACT AS A % OF OVERALL

1,208 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

3,317 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



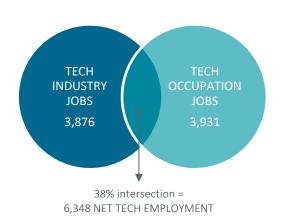
51st NET TECH EMPLOYMENT RANK

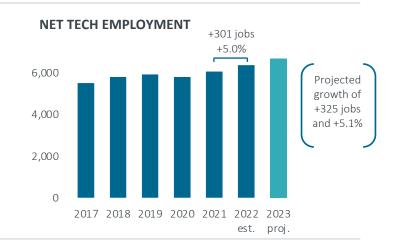
49th NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

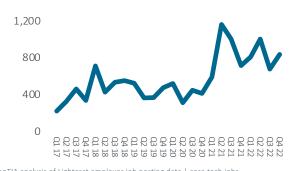
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



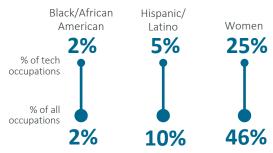
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	1,058	8.0%
Network Engineers, Architects and Support	872	1.6%
IT Support Specialist and Repair Technicians	850	3.0%
Cybersecurity and Systems Engineers	316	7.3%
Database, Data Science, Analytics and CS	278	3.4%
Emerging Tech, IT Project Mgt. and Other	202	6.2%

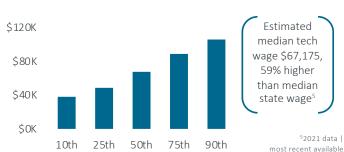
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]







METRO AREA SNAPSHOTS

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

22,298 NET TECH EMPLOYMENT¹

5.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.0% ECONOMIC IMPACT AS A % OF OVERALL

1,293 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

10,779 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



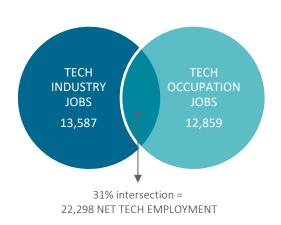
47th NET TECH EMPLOYMENT RANK

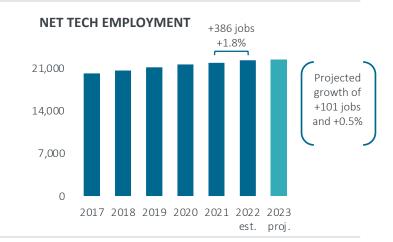
40th NET TECH EMPLOYMENT JOBS ADDED RANK

6th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

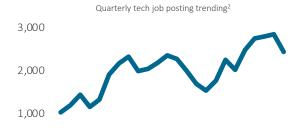
2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

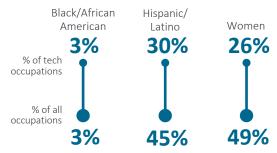
LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,252	3.2%
IT Support Specialist and Repair Technicians	2,221	0.3%
Cybersecurity and Systems Engineers	2,189	1.9%
Network Engineers, Architects and Support	1,776	-0.3%
Database, Data Science, Analytics and CS	1,014	2.2%
Emerging Tech, IT Project Mgt. and Other	704	2.6%

³Projected growth rate for 2023

10th

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$40K

75th

90th

⁵2021 data | most recent available



25th

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

220,242 NET TECH EMPLOYMENT¹

7.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$55.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

12.1% ECONOMIC IMPACT AS A % OF OVERALL

10,183 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

112,535 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



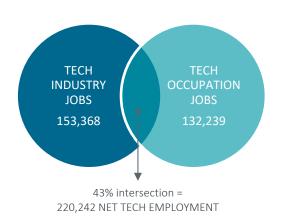
10th NET TECH EMPLOYMENT RANK

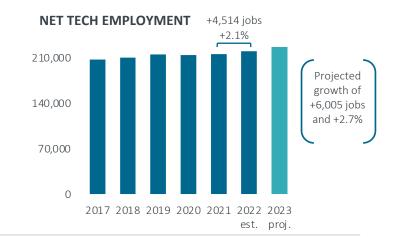
11th NET TECH EMPLOYMENT JOBS ADDED RANK

42nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



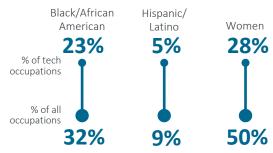
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	50,004	4.5%
IT Support Specialist and Repair Technicians	18,719	2.5%
Network Engineers, Architects and Support	16,742	2.1%
Cybersecurity and Systems Engineers	15,867	3.5%
Emerging Tech, IT Project Mgt. and Other	10,271	3.1%
Database, Data Science, Analytics and CS	8,231	3.9%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$104,354, \$80K 142% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Austin

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

173,629 NET TECH EMPLOYMENT¹

14.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$47.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

23.8% ECONOMIC IMPACT AS A % OF OVERALL

7,346 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

72,233 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

33.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



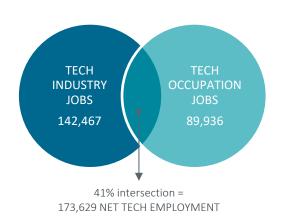
11th NET TECH EMPLOYMENT RANK

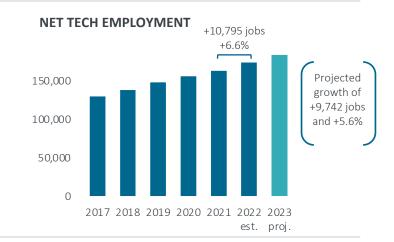
5th NET TECH EMPLOYMENT JOBS ADDED RANK

26th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



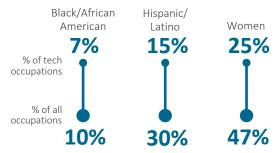
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³	
Software, Programmers, Web and QA	36,161	8.0%	
Cybersecurity and Systems Engineers	12,445	6.7%	
IT Support Specialist and Repair Technicians	11,869	5.3%	
Network Engineers, Architects and Support	9,588	5.8%	
Emerging Tech, IT Project Mgt. and Other	7,129	5.6%	
Database, Data Science, Analytics and CS	3,643	7.7%	

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$93,974, \$80K 106% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Full MSA name: Baltimore-Columbia-Towson, MD

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

103,799 NET TECH EMPLOYMENT¹

7.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$20.2b ECONOMIC IMPACT [estimated direct impact of tech sector]

9.6% ECONOMIC IMPACT AS A % OF OVERALL

4,059 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

51,255 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



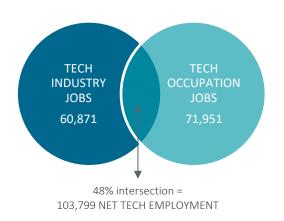
20th NET TECH EMPLOYMENT RANK

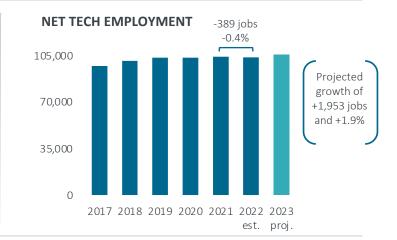
51st NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

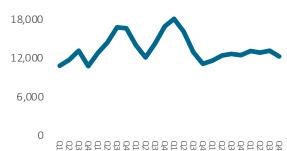
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



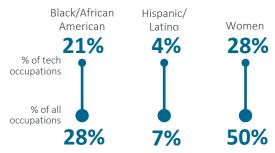
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	22,298	2.7%
Emerging Tech, IT Project Mgt. and Other	11,369	1.5%
Network Engineers, Architects and Support	11,206	0.4%
Cybersecurity and Systems Engineers	10,596	2.1%
IT Support Specialist and Repair Technicians	5,580	0.9%
Database, Data Science, Analytics and CS	3,614	2.6%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$109,772, 125% higher \$80K than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th

most recent available



Boise

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

25,178 NET TECH EMPLOYMENT¹

6.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$4.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.5% ECONOMIC IMPACT AS A % OF OVERALL

1,350 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

22,606 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



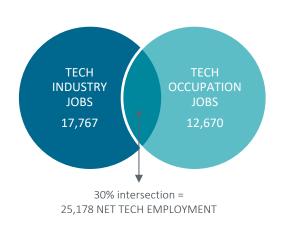
44th NET TECH EMPLOYMENT RANK

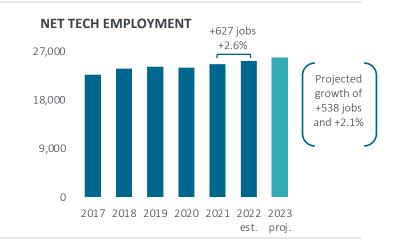
37th NET TECH EMPLOYMENT JOBS ADDED RANK

4th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

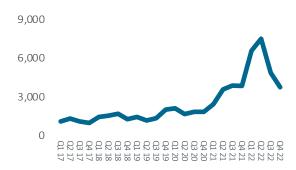
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



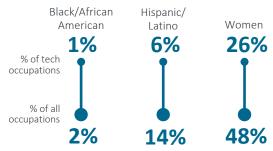
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	4,979	4.7%
IT Support Specialist and Repair Technicians	2,622	2.1%
Cybersecurity and Systems Engineers	1,667	3.9%
Network Engineers, Architects and Support	1,231	3.0%
Emerging Tech, IT Project Mgt. and Other	630	4.3%
Database, Data Science, Analytics and CS	497	4.9%

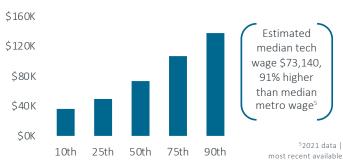
 $^3\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





Boston

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

272,572 NET TECH EMPLOYMENT¹

9.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$75.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

14.6% ECONOMIC IMPACT AS A % OF OVERALL

11,041 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

117,374 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

39.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



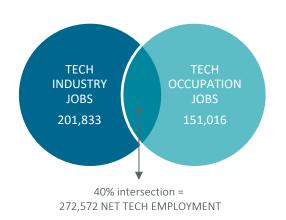
8th NET TECH EMPLOYMENT RANK

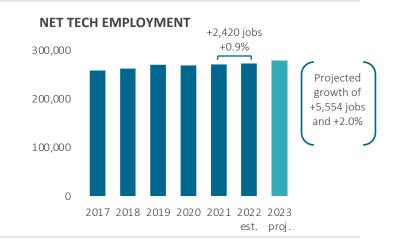
NET TECH EMPLOYMENT JOBS ADDED RANK 18th

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK 30th

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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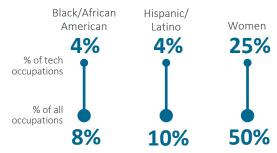
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	68,369	3.5%
IT Support Specialist and Repair Technicians	16,784	1.8%
Cybersecurity and Systems Engineers	16,082	3.2%
Network Engineers, Architects and Support	14,417	1.9%
Database, Data Science, Analytics and CS	6,919	4.3%
Emerging Tech, IT Project Mgt. and Other	6,784	2.9%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated median tech \$120K wage \$115,803, 105% higher \$80K than median \$40K metro wage⁵ ŚOK ⁵2021 data | 10th 25th 50th 75th 90th

most recent available



Buffalo

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

23,038 NET TECH EMPLOYMENT1

4.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.8% ECONOMIC IMPACT AS A % OF OVERALL

740 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

9,669 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



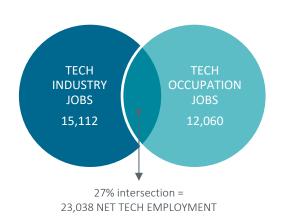
46th NET TECH EMPLOYMENT RANK

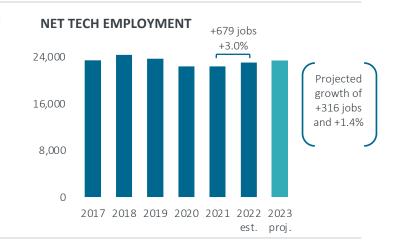
NET TECH EMPLOYMENT JOBS ADDED RANK 35th

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

4,500 3,000 1.500

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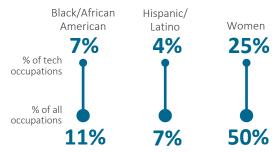
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,908	1.6%
IT Support Specialist and Repair Technicians	2,392	-0.2%
Network Engineers, Architects and Support	2,133	-0.3%
Cybersecurity and Systems Engineers	1,529	0.9%
Database, Data Science, Analytics and CS	678	1.8%
Emerging Tech, IT Project Mgt. and Other	450	1.1%

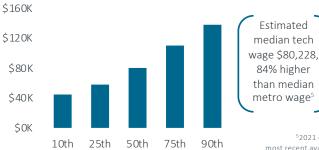
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



⁵2021 data | most recent available



Full MSA name: Charleston-North Charleston, SC

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

18,807 NET TECH EMPLOYMENT¹

4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.5% ECONOMIC IMPACT AS A % OF OVERALL

1,491 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

7,317 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



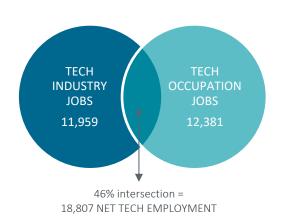
49th NET TECH EMPLOYMENT RANK

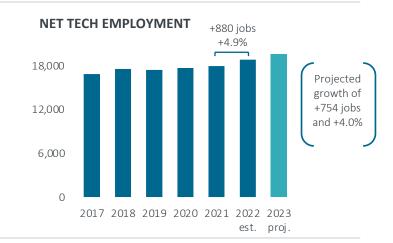
31st NET TECH EMPLOYMENT JOBS ADDED RANK

8th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

3,000 2,000 1,000

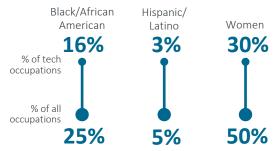
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,295	6.7%
Cybersecurity and Systems Engineers	3,105	2.0%
IT Support Specialist and Repair Technicians	1,892	2.6%
Network Engineers, Architects and Support	1,440	2.1%
Emerging Tech, IT Project Mgt. and Other	1,057	3.4%
Database, Data Science, Analytics and CS	686	4.3%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$85,642, \$80K 114% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Full MSA name: Charlotte-Concord-Gastonia, NC-SC

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

88,137 NET TECH EMPLOYMENT¹

6.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$14.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.8% ECONOMIC IMPACT AS A % OF OVERALL

4,763 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

67,856 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

36.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



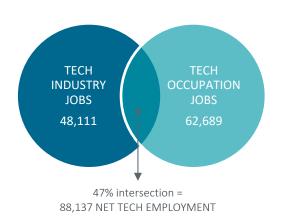
22nd NET TECH EMPLOYMENT RANK

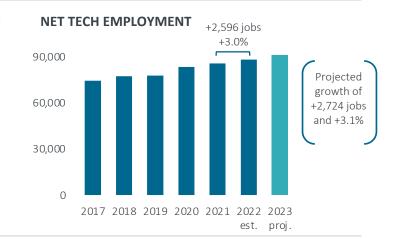
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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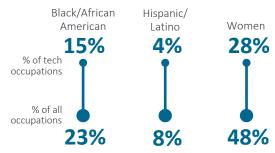
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	24,633	3.8%
Cybersecurity and Systems Engineers	11,182	2.5%
IT Support Specialist and Repair Technicians	8,276	2.3%
Network Engineers, Architects and Support	6,906	1.9%
Database, Data Science, Analytics and CS	4,078	3.2%
Emerging Tech, IT Project Mgt. and Other	1,610	4.7%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$105,148, \$80K 147% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

Chicago

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

245,390 NET TECH EMPLOYMENT¹

5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$51.2b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.9% ECONOMIC IMPACT AS A % OF OVERALL

11,295 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

148,292 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



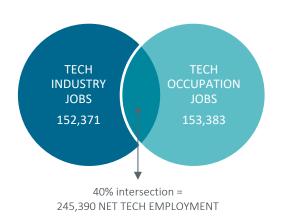
9th NET TECH EMPLOYMENT RANK

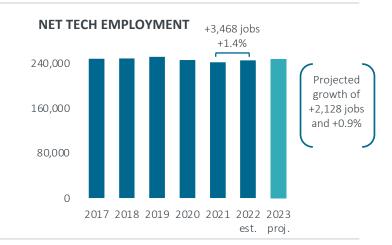
12th NET TECH EMPLOYMENT JOBS ADDED RANK

33rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



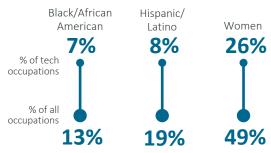
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

		2022	2023 % Change ³
Software, Programmers, Web a	nd QA	56,102	2.5%
Network Engineers, Architects a	and Support	22,826	-0.1%
IT Support Specialist and Repair	Technicians	22,596	0.6%
Cybersecurity and Systems Engi	neers	20,270	1.2%
Database, Data Science, Analyti	cs and CS	9,206	1.9%
Emerging Tech, IT Project Mgt.	and Other	5,916	2.0%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$92,230, \$80K 100% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Full MSA name: Cincinnati, OH-KY-IN

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

53,453 NET TECH EMPLOYMENT¹

4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$7.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.8% ECONOMIC IMPACT AS A % OF OVERALL

3,710 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

26,187 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



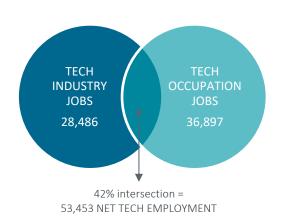
32nd NET TECH EMPLOYMENT RANK

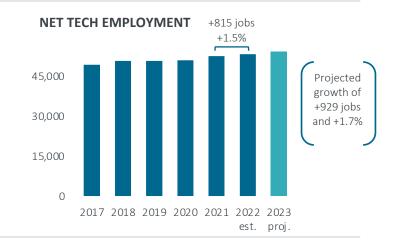
33rd NET TECH EMPLOYMENT JOBS ADDED RANK

19th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

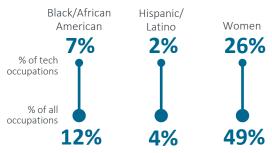
	2022	2023 % Change ³
Software, Programmers, Web and QA	13,665	2.9%
IT Support Specialist and Repair Technicians	6,000	1.1%
Cybersecurity and Systems Engineers	5,563	1.5%
Network Engineers, Architects and Support	5,562	0.6%
Database, Data Science, Analytics and CS	1,894	2.9%
Emerging Tech, IT Project Mgt. and Other	1,194	3.2%

 $^3\mbox{Projected}$ growth rate for 2023

ŚOK

10th

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K

75th

90th

⁵2021 data | most recent available



50th

25th

Full MSA name: Cleveland-Elyria, OI

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

55,193 NET TECH EMPLOYMENT¹

5.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$7.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.2% ECONOMIC IMPACT AS A % OF OVERALL

2,970 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

25,987 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



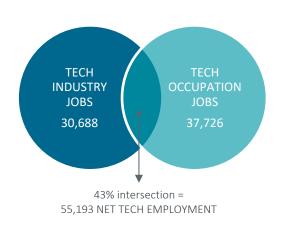
31st NET TECH EMPLOYMENT RANK

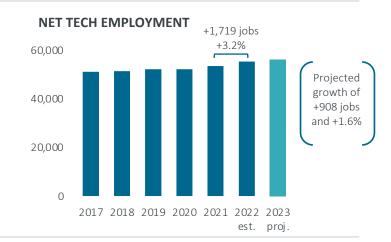
24th NET TECH EMPLOYMENT JOBS ADDED RANK

25th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



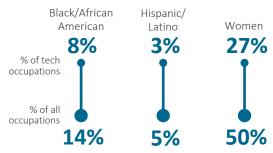
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³	
Software, Programmers, Web and QA	13,162	2.8%	
IT Support Specialist and Repair Technicians	6,267	0.5%	
Cybersecurity and Systems Engineers	6,251	1.3%	
Network Engineers, Architects and Support	5,792	0.1%	
Database, Data Science, Analytics and CS	1,710	2.3%	
Emerging Tech, IT Project Mgt. and Other	1,443	2.2%	

 $^3\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$86,944, \$80K 101% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

Colorado Springs

Full MSA name: Colorado Springs, CO

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

26,312 NET TECH EMPLOYMENT¹

8.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.4% ECONOMIC IMPACT AS A % OF OVERALL

2,073 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

18,628 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

23.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



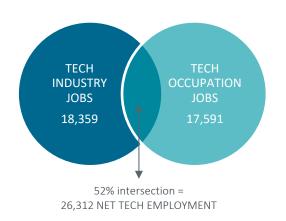
42nd NET TECH EMPLOYMENT RANK

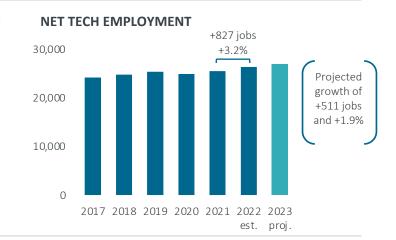
32nd NET TECH EMPLOYMENT JOBS ADDED RANK

17th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

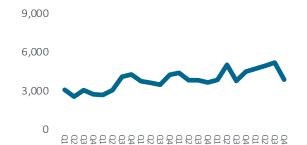
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



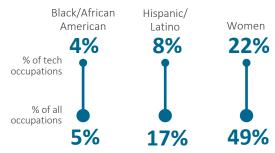
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	6,294	3.6%
Network Engineers, Architects and Support	2,844	1.2%
Cybersecurity and Systems Engineers	2,562	3.4%
IT Support Specialist and Repair Technicians	2,266	1.7%
Emerging Tech, IT Project Mgt. and Other	1,294	2.4%
Database, Data Science, Analytics and CS	605	3.9%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$98,060, \$80K 123% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 75th 90th



Dallas

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

329,347 NET TECH EMPLOYMENT¹

8.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$74.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

11.9% ECONOMIC IMPACT AS A % OF OVERALL

13,405 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

178,449 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



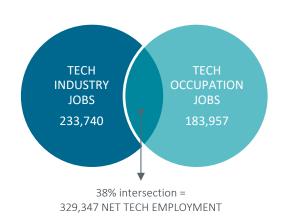
6th NET TECH EMPLOYMENT RANK

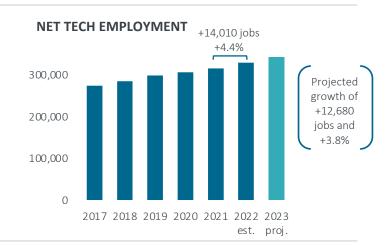
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

60,000 40,000 20.000

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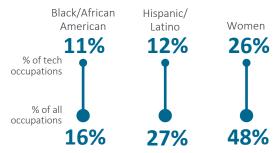
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

		2022	2023 % Change ³
9	Software, Programmers, Web and QA	64,791	5.9%
I	T Support Specialist and Repair Technicians	30,191	3.5%
(Cybersecurity and Systems Engineers	26,481	4.7%
1	Network Engineers, Architects and Support	24,089	3.4%
E	Emerging Tech, IT Project Mgt. and Other	11,011	4.3%
[Database, Data Science, Analytics and CS	8,091	5.4%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$100,505, \$80K 132% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



154,948 NET TECH EMPLOYMENT¹

9.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$34.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

13.1% ECONOMIC IMPACT AS A % OF OVERALL

11,974 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

81,011 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



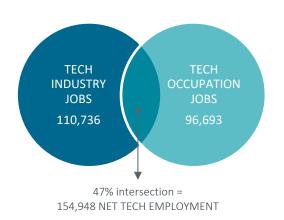
14th NET TECH EMPLOYMENT RANK

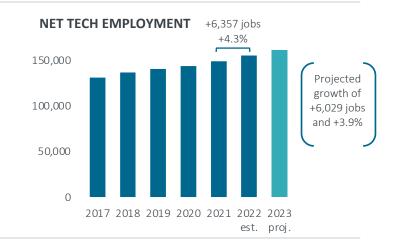
7th NET TECH EMPLOYMENT JOBS ADDED RANK

11th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

20,000

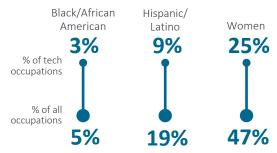
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	36,526	5.6%
Network Engineers, Architects and Support	15,822	2.3%
IT Support Specialist and Repair Technicians	12,894	3.2%
Cybersecurity and Systems Engineers	12,197	4.4%
Database, Data Science, Analytics and CS	5,261	4.6%
Emerging Tech, IT Project Mgt. and Other	4,647	4.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$107,254, \$80K 112% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

10.000

Des Moines

Full MSA name: Des Moines-West Des Moines, IA

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

24,378 NET TECH EMPLOYMENT¹

5.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$2.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.3% ECONOMIC IMPACT AS A % OF OVERALL

1,886 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

14,442 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

20.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



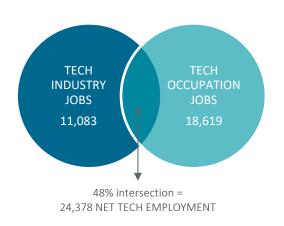
45th NET TECH EMPLOYMENT RANK

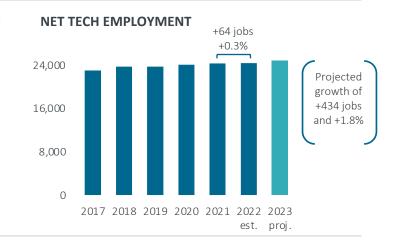
47th NET TECH EMPLOYMENT JOBS ADDED RANK

10th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



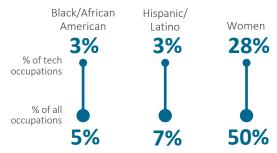
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	6,774	2.6%
Cybersecurity and Systems Engineers	3,693	1.8%
Network Engineers, Architects and Supp	ort 2,225	1.0%
IT Support Specialist and Repair Technici	ians 2,088	1.4%
Database, Data Science, Analytics and C	1,486	2.9%
Emerging Tech, IT Project Mgt. and Othe	er 607	2.8%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$94,379, \$80K 112% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

Full MSA name: Detroit-Warren-Dearborn, MI

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

103,774 NET TECH EMPLOYMENT¹

5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

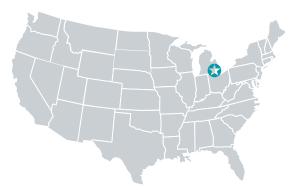
\$13.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.0% ECONOMIC IMPACT AS A % OF OVERALL

3,708 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

62,276 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



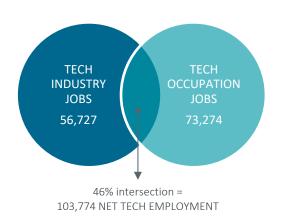
21st NET TECH EMPLOYMENT RANK

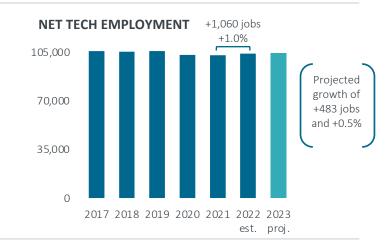
30th NET TECH EMPLOYMENT JOBS ADDED RANK

41st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

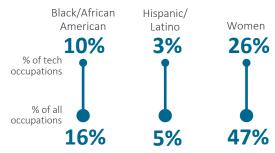
LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	29,031	1.8%
IT Support Specialist and Repair Technicians	11,480	0.0%
Cybersecurity and Systems Engineers	11,438	0.9%
Network Engineers, Architects and Support	6,453	0.4%
Emerging Tech, IT Project Mgt. and Other	4,269	1.2%
Database, Data Science, Analytics and CS	3,019	2.8%

 $^3\mbox{Projected}$ growth rate for 2023

10th

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$40K

75th

90th

most recent available



50th

25th

Full MSA name: Hartford-East Hartford-Middletown, CT

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

34,697 NET TECH EMPLOYMENT¹

5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$5.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.8% ECONOMIC IMPACT AS A % OF OVERALL

2,442 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

20,651 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



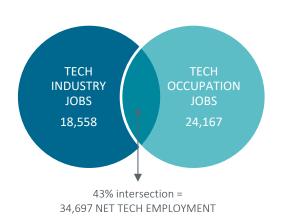
37th NET TECH EMPLOYMENT RANK

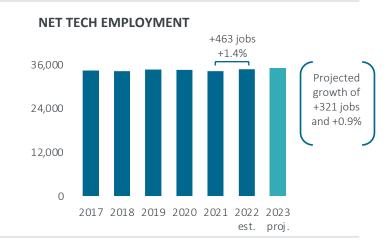
NET TECH EMPLOYMENT JOBS ADDED RANK 39th

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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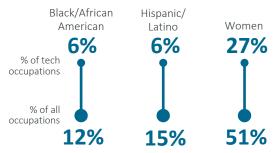
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	8,660	1.7%
IT Support Specialist and Repair Technicians	3,788	0.4%
Cybersecurity and Systems Engineers	3,759	0.8%
Network Engineers, Architects and Support	1,879	0.6%
Database, Data Science, Analytics and CS	1,047	1.8%
Emerging Tech, IT Project Mgt. and Other	541	2.4%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$94,248, \$80K 90% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th

most recent available



Houston

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

150,145 NET TECH EMPLOYMENT¹

4.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

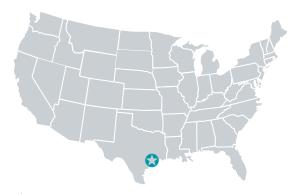
\$20.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.3% ECONOMIC IMPACT AS A % OF OVERALL

7,600 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

70,358 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

24.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



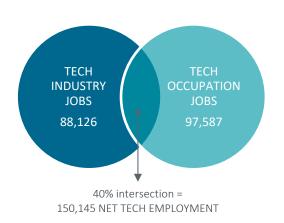
16th NET TECH EMPLOYMENT RANK

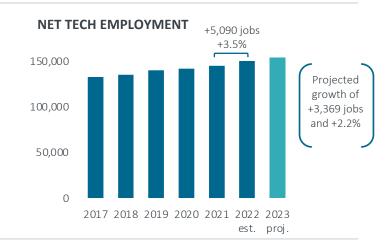
9th NET TECH EMPLOYMENT JOBS ADDED RANK

40th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

30,000 20,000 10,000

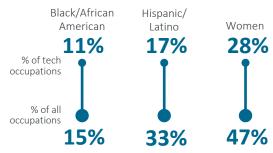
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and	d QA 31,399	4.4%
IT Support Specialist and Repair T	echnicians 17,150	1.9%
Cybersecurity and Systems Engine	eers 16,301	2.5%
Network Engineers, Architects an	d Support 12,134	1.8%
Emerging Tech, IT Project Mgt. ar	nd Other 7,183	3.0%
Database, Data Science, Analytics	s and CS 4,229	3.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$89,197, \$80K 112% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Full MSA name: Huntsville, A

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

27,530 NET TECH EMPLOYMENT¹

10.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$3.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.6% ECONOMIC IMPACT AS A % OF OVERALL

806 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

17,431 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

22.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



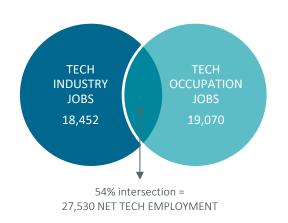
41st NET TECH EMPLOYMENT RANK

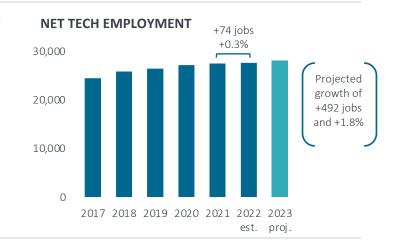
46th NET TECH EMPLOYMENT JOBS ADDED RANK

7th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

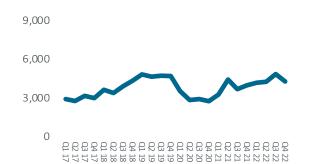
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



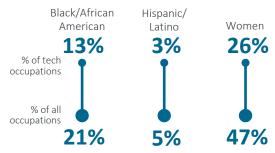
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	8,352	3.0%
Cybersecurity and Systems Engineers	3,235	2.6%
Network Engineers, Architects and Support	2,303	1.1%
IT Support Specialist and Repair Technicians	1,569	1.9%
Emerging Tech, IT Project Mgt. and Other	853	3.2%
Database, Data Science, Analytics and CS	738	3.0%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$98,150, \$80K 121% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available

Indianapolis

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

57,055 NET TECH EMPLOYMENT¹

5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$9.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.2% ECONOMIC IMPACT AS A % OF OVERALL

2,766 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

27,821 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



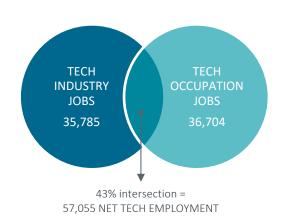
NET TECH EMPLOYMENT RANK

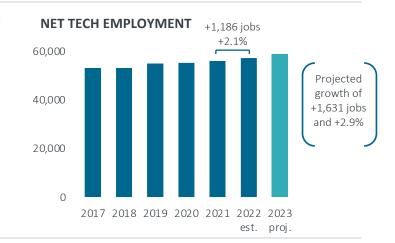
NET TECH EMPLOYMENT JOBS ADDED RANK 28th

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

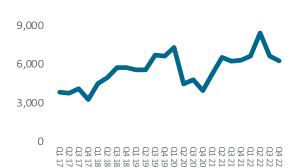
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



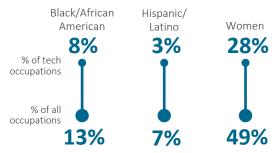
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

		2022	2023 % Change ³
S	oftware, Programmers, Web and QA	11,097	4.3%
ľ	T Support Specialist and Repair Technicians	6,317	1.9%
	Cybersecurity and Systems Engineers	6,140	2.7%
Ν	Network Engineers, Architects and Support	5,891	1.8%
Е	merging Tech, IT Project Mgt. and Other	2,343	3.0%
	Database, Data Science, Analytics and CS	1,870	3.9%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$82,094, \$80K 99% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 75th 90th

most recent available



74,404 NET TECH EMPLOYMENT¹

6.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$13.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

9.0% ECONOMIC IMPACT AS A % OF OVERALL

4,418 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

35,979 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



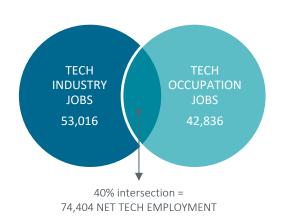
25th NET TECH EMPLOYMENT RANK

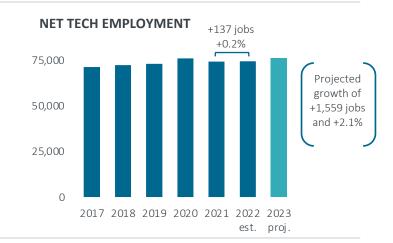
45th NET TECH EMPLOYMENT JOBS ADDED RANK

16th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

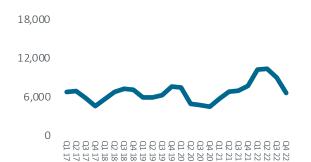
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

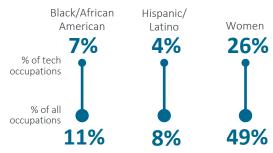
	2022	2023 % Change ³
Software, Programmers, Web and QA	14,629	2.9%
IT Support Specialist and Repair Technicians	7,598	1.1%
Cybersecurity and Systems Engineers	6,178	1.6%
Network Engineers, Architects and Support	6,072	0.5%
Emerging Tech, IT Project Mgt. and Other	2,439	2.2%
Database, Data Science, Analytics and CS	2,236	2.3%

 $^3\mbox{Projected}$ growth rate for 2023

ŚOK

10th

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$40K

75th

90th

⁵2021 data | most recent available



50th

25th

32,389 NET TECH EMPLOYMENT¹

2.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$6.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.3% ECONOMIC IMPACT AS A % OF OVERALL

3,537 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

25,874 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



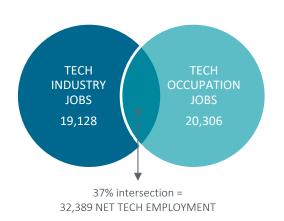
39th NET TECH EMPLOYMENT RANK

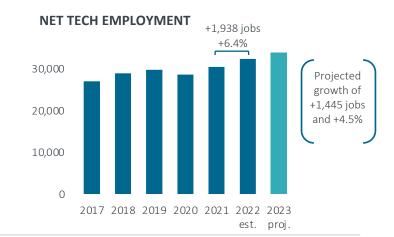
23rd NET TECH EMPLOYMENT JOBS ADDED RANK

18th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

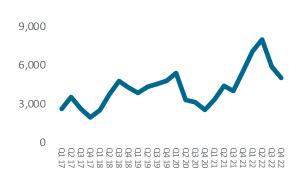
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



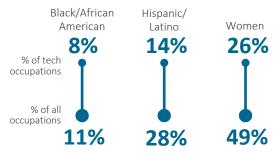
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

		2022	2023 % Change ³
Software, Pro	ogrammers, Web and QA	5,892	5.7%
IT Support Sp	pecialist and Repair Technicians	5,061	3.0%
Network Eng	ineers, Architects and Support	2,915	3.4%
Emerging Te	ch, IT Project Mgt. and Other	2,020	3.6%
Cybersecurit	y and Systems Engineers	1,720	5.9%
Database, Da	ta Science, Analytics and CS	1,048	5.3%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K Estimated median tech wage \$77,532, 106% higher than median

\$40K \$0K 10th 25th 50th 75th 90th

⁵2021 data | most recent available

metro wage⁵



Los Angeles

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

385,563 NET TECH EMPLOYMENT¹

5.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$83.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.7% ECONOMIC IMPACT AS A % OF OVERALL

14,704 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

168,110 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



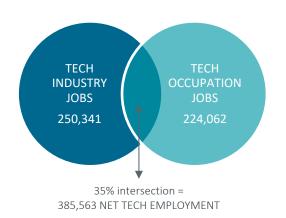
2nd NET TECH EMPLOYMENT RANK

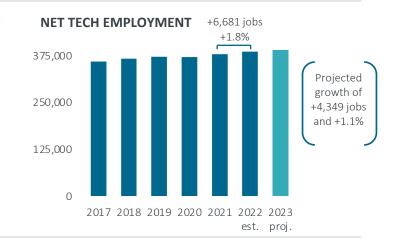
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

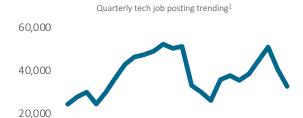
DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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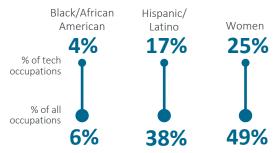
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	85,149	2.9%
IT Support Specialist and Repair Technicians	27,973	1.0%
Emerging Tech, IT Project Mgt. and Other	27,549	1.2%
Cybersecurity and Systems Engineers	23,306	1.9%
Network Engineers, Architects and Support	20,289	1.2%
Database, Data Science, Analytics and CS	11,748	2.6%

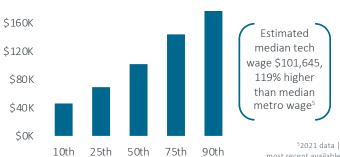
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



most recent available



20,762 NET TECH EMPLOYMENT¹

2.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$2.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.1% ECONOMIC IMPACT AS A % OF OVERALL

1,288 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

14,311 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



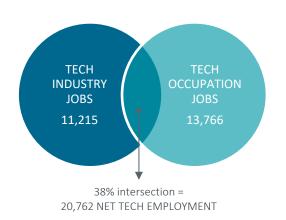
48th NET TECH EMPLOYMENT RANK

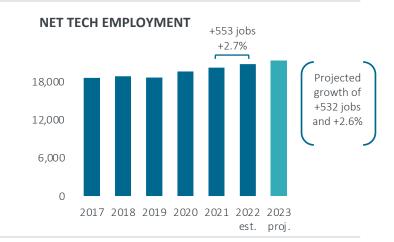
38th NET TECH EMPLOYMENT JOBS ADDED RANK

12th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

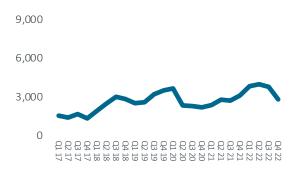
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



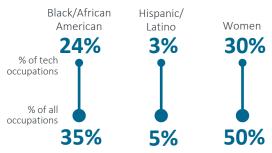
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	3,316	4.8%
Network Engineers, Architects and Support	2,311	0.9%
Emerging Tech, IT Project Mgt. and Other	2,305	2.1%
IT Support Specialist and Repair Technicians	1,959	2.5%
Cybersecurity and Systems Engineers	1,811	2.7%
Database, Data Science, Analytics and CS	580	2.8%

 $^3\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





Miami

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

130,516 NET TECH EMPLOYMENT¹

4.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$26.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.1% ECONOMIC IMPACT AS A % OF OVERALL

10,040 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

55,155 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

22.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



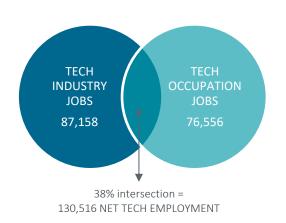
17th NET TECH EMPLOYMENT RANK

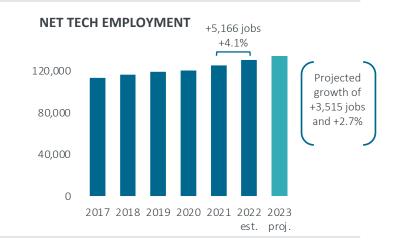
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

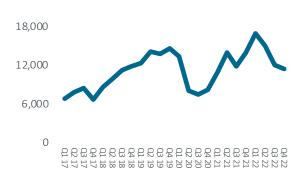
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



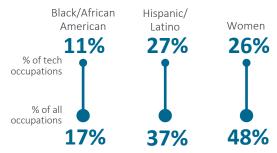
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	202 2022 Chan	
Software, Programmers, Web and QA	27,816 4	.8%
IT Support Specialist and Repair Technicians	15,378 1	.7%
Network Engineers, Architects and Support	10,585 1	.9%
Cybersecurity and Systems Engineers	8,183 3	.9%
Database, Data Science, Analytics and CS	3,552 4	.2%
Emerging Tech, IT Project Mgt. and Other	3,528 4	.8%

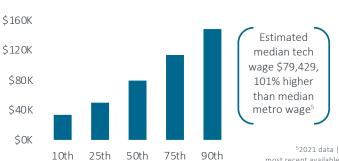
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



most recent available



46,124 NET TECH EMPLOYMENT¹

5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$8.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.4% ECONOMIC IMPACT AS A % OF OVERALL

1,690 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

21,743 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



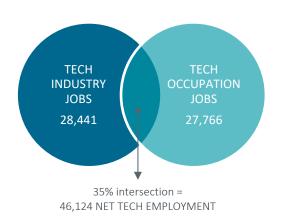
36th NET TECH EMPLOYMENT RANK

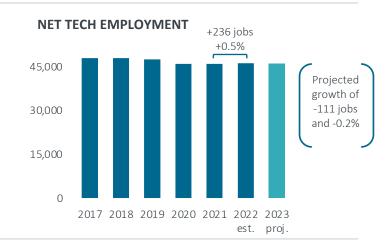
NET TECH EMPLOYMENT JOBS ADDED RANK 43rd

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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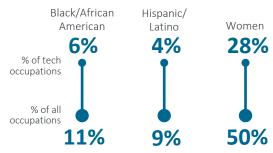
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	10,677	1.3%
Network Engineers, Architects and Support	4,343	-0.3%
Cybersecurity and Systems Engineers	4,340	0.7%
IT Support Specialist and Repair Technicians	4,166	-0.3%
Emerging Tech, IT Project Mgt. and Other	1,207	0.7%
Database, Data Science, Analytics and CS	1,038	1.4%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$84,995, \$80K 92% higher than median \$40K metro wage⁵ ŚOK 10th 25th 75th 90th

most recent available



0

Minneapolis

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

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

150,516 NET TECH EMPLOYMENT¹

7.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

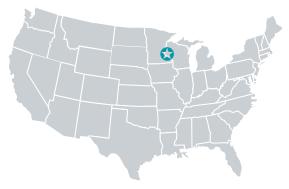
\$27.7b ECONOMIC IMPACT [estimated direct impact of tech sector]

9.3% ECONOMIC IMPACT AS A % OF OVERALL

4,426 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

59,830 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



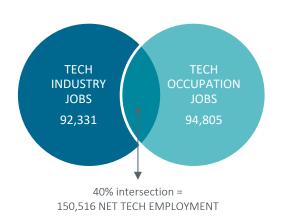
15th NET TECH EMPLOYMENT RANK

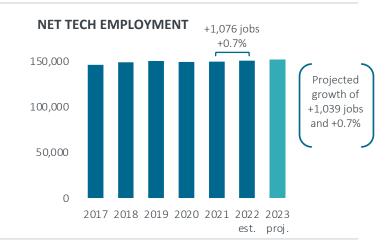
29th NET TECH EMPLOYMENT JOBS ADDED RANK

37th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



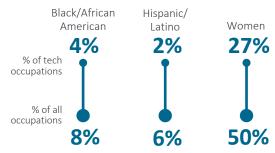
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	39,504	1.9%
Cybersecurity and Systems Engineers	15,090	1.0%
Network Engineers, Architects and Support	12,875	0.0%
IT Support Specialist and Repair Technicians	10,970	0.6%
Emerging Tech, IT Project Mgt. and Other	4,059	1.2%
Database, Data Science, Analytics and CS	3,714	1.8%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$98,251, \$80K 96% higher than median \$40K metro wage⁵ ŚOK 10th 25th 75th 90th most recent available



30,000

0

52,768 NET TECH EMPLOYMENT¹

4.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$9.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.9% ECONOMIC IMPACT AS A % OF OVERALL

5,324 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

27,048 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

38.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



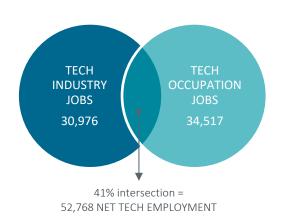
34th NET TECH EMPLOYMENT RANK

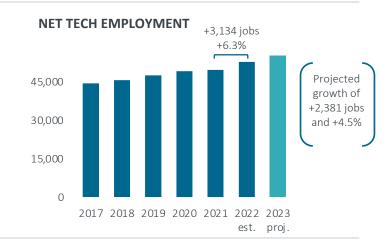
13th NET TECH EMPLOYMENT JOBS ADDED RANK

1st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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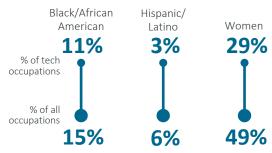
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

		2022	2023 % Change ³
So	oftware, Programmers, Web and QA	10,218	7.1%
Eı	merging Tech, IT Project Mgt. and Other	5,671	2.8%
Ν	etwork Engineers, Architects and Support	4,553	3.2%
IT	Support Specialist and Repair Technicians	4,062	4.8%
C	ybersecurity and Systems Engineers	4,021	4.9%
D	atabase, Data Science, Analytics and CS	1,627	5.8%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$77,031, \$80K 88% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th

most recent available



New Orleans

Full MSA name: New Orleans-Metairie, LA

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

16,805 NET TECH EMPLOYMENT¹

2.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$2.1b ECONOMIC IMPACT [estimated direct impact of tech sector]

2.7% ECONOMIC IMPACT AS A % OF OVERALL

2,179 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

8,930 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

19.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



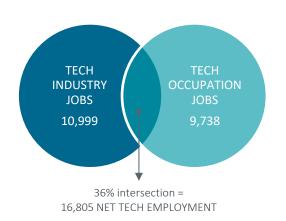
51st NET TECH EMPLOYMENT RANK

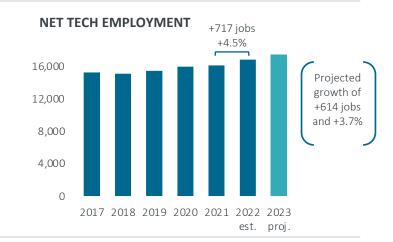
34th NET TECH EMPLOYMENT JOBS ADDED RANK

5th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

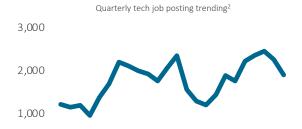
3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



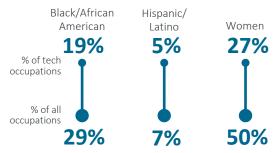
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	2,379	7.9%
Emerging Tech, IT Project Mgt. and Other	1,927	1.8%
IT Support Specialist and Repair Technicians	1,516	3.0%
Cybersecurity and Systems Engineers	1,332	2.9%
Network Engineers, Architects and Support	1,148	2.0%
Database, Data Science, Analytics and CS	524	3.8%

 $^{3}\mbox{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$74,988, \$80K 94% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



New York City

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

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

558,651 NET TECH EMPLOYMENT¹

5.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$165.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.7% ECONOMIC IMPACT AS A % OF OVERALL

23,149 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

249,850 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



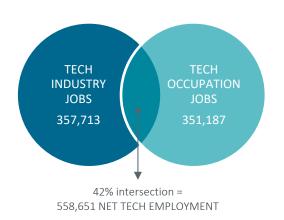
1st NET TECH EMPLOYMENT RANK

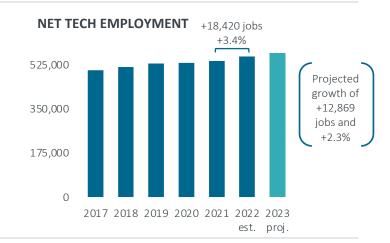
1st NET TECH EMPLOYMENT JOBS ADDED RANK

44th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



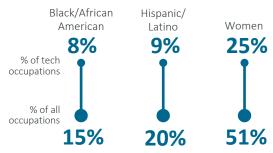
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	144,839	3.3%
Network Engineers, Architects and Support	47,533	0.8%
IT Support Specialist and Repair Technicians	45,004	1.3%
Cybersecurity and Systems Engineers	37,040	2.5%
Database, Data Science, Analytics and CS	21,808	2.9%
Emerging Tech, IT Project Mgt. and Other	14,164	2.6%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$200K Estimated \$160K median tech wage \$116,773, \$120K 119% higher \$80K than median metro wage⁵ \$40K ŚOK 10th 25th 75th 90th



Oklahoma City

ull MSA name: Oklahoma City, O

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

25,920 NET TECH EMPLOYMENT¹

3.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$2.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

2.9% ECONOMIC IMPACT AS A % OF OVERALL

1,788 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

15,912 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

22.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



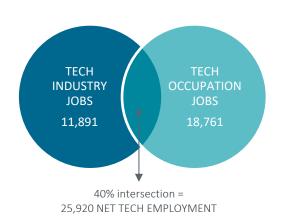
43rd NET TECH EMPLOYMENT RANK

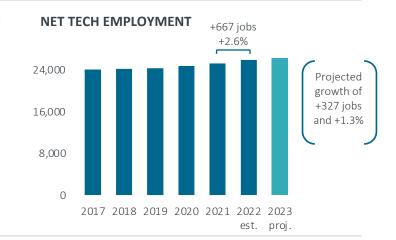
36th NET TECH EMPLOYMENT JOBS ADDED RANK

9th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

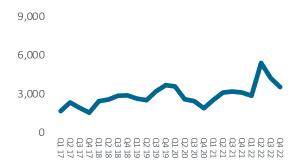
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



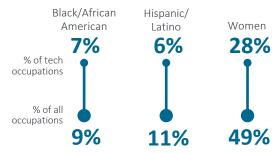
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	5,195	2.8%
IT Support Specialist and Repair Technicians	3,496	0.9%
Network Engineers, Architects and Support	2,938	-0.1%
Cybersecurity and Systems Engineers	2,015	2.1%
Database, Data Science, Analytics and CS	1,773	2.0%
Emerging Tech, IT Project Mgt. and Other	1,510	2.4%

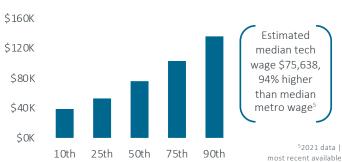
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





30,584 NET TECH EMPLOYMENT1

6.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$4.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

6.3% ECONOMIC IMPACT AS A % OF OVERALL

1,315 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

14,327 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

23.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



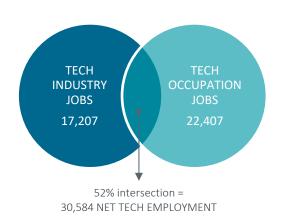
40th NET TECH EMPLOYMENT RANK

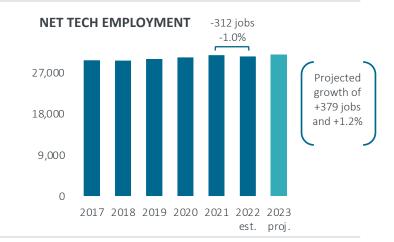
NET TECH EMPLOYMENT JOBS ADDED RANK 50th

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

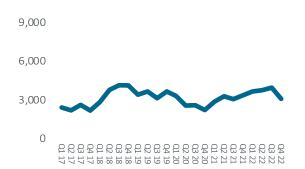
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



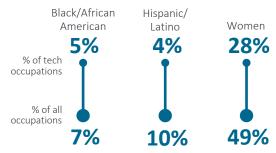
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	6,999	2.8%
Cybersecurity and Systems Engineers	3,028	0.6%
Emerging Tech, IT Project Mgt. and Other	2,868	0.0%
IT Support Specialist and Repair Technicians	2,831	0.6%
Network Engineers, Architects and Support	2,809	-0.7%
Database, Data Science, Analytics and CS	1,427	0.9%

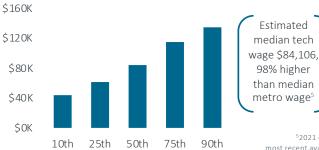
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



52021 data I most recent available Full MSA name: Orlando-Kissimmee-Sanford, FL

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

67,061 NET TECH EMPLOYMENT1

5.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$12.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.6% ECONOMIC IMPACT AS A % OF OVERALL

3,960 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

30,827 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

24.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



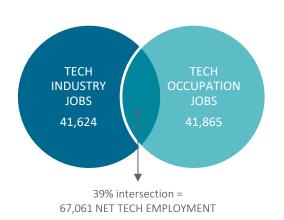
28th NET TECH EMPLOYMENT RANK

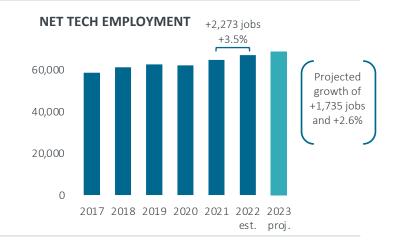
19th NET TECH EMPLOYMENT JOBS ADDED RANK

22nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

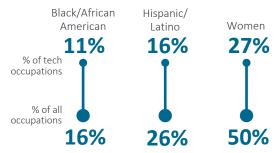
LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	15,136	4.5%
IT Support Specialist and Repair Technicians	6,947	2.4%
Network Engineers, Architects and Support	5,941	2.3%
Cybersecurity and Systems Engineers	5,514	3.9%
Database, Data Science, Analytics and CS	2,217	4.2%
Emerging Tech, IT Project Mgt. and Other	1,564	4.7%

 $^{3}\text{Projected}$ growth rate for 2023

10th

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$OK

75th

90th

most recent available



25th

Philadelphia

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

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

155,592 NET TECH EMPLOYMENT¹

5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

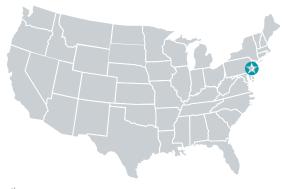
\$35.5b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.6% ECONOMIC IMPACT AS A % OF OVERALL

7,588 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

72,271 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



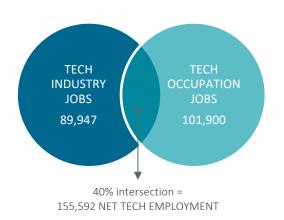
13th NET TECH EMPLOYMENT RANK

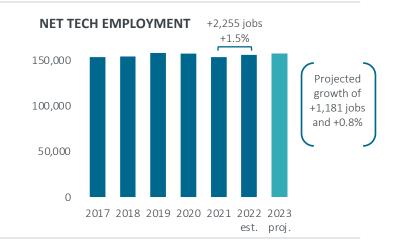
21st NET TECH EMPLOYMENT JOBS ADDED RANK

36th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



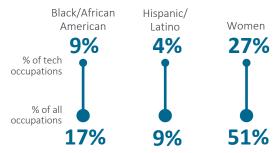
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	36,375	2.3%
IT Support Specialist and Repair Technicians	15,370	0.3%
Cybersecurity and Systems Engineers	12,210	1.3%
Network Engineers, Architects and Support	12,074	0.2%
Emerging Tech, IT Project Mgt. and Other	8,653	1.0%
Database, Data Science, Analytics and CS	6,603	1.8%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$10th 25th 50th 75th 90th \$2021 data | most recent available



Phoenix

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

162,630 NET TECH EMPLOYMENT¹

6.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$29.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

9.3% ECONOMIC IMPACT AS A % OF OVERALL

8,679 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

85,118 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

27.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



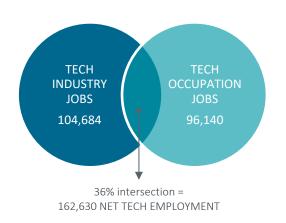
12th NET TECH EMPLOYMENT RANK

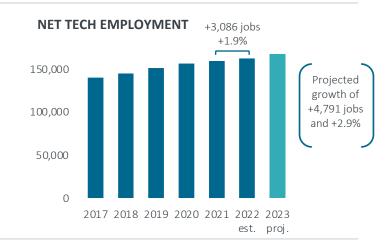
14th NET TECH EMPLOYMENT JOBS ADDED RANK

20th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²
30,000
20,000
10,000

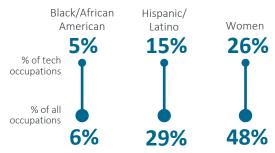
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	37,046	4.8%
IT Support Specialist and Repair Technicians	17,244	2.2%
Cybersecurity and Systems Engineers	13,255	3.7%
Network Engineers, Architects and Support	10,898	2.6%
Database, Data Science, Analytics and CS	4,745	4.8%
Emerging Tech, IT Project Mgt. and Other	3,035	4.8%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$90,197, \$80K 112% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

Full MSA name: Pittsburgh, PA

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

62,469 NET TECH EMPLOYMENT¹

5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$13.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

8.3% ECONOMIC IMPACT AS A % OF OVERALL

1,867 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

29,116 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



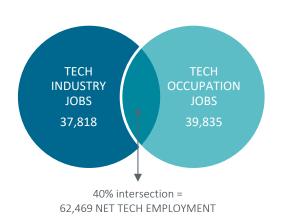
29th NET TECH EMPLOYMENT RANK

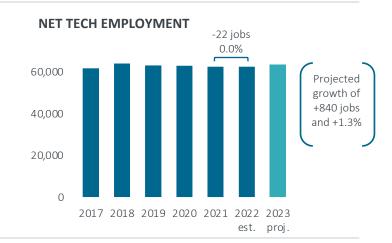
48th NET TECH EMPLOYMENT JOBS ADDED RANK

43rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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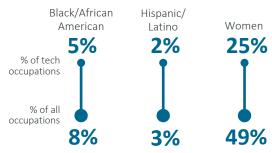
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	14,184	2.8%
IT Support Specialist and Repair Technicians	6,311	0.4%
Cybersecurity and Systems Engineers	5,318	1.3%
Network Engineers, Architects and Support	4,457	0.2%
Emerging Tech, IT Project Mgt. and Other	3,048	1.5%
Database, Data Science, Analytics and CS	2,294	1.8%

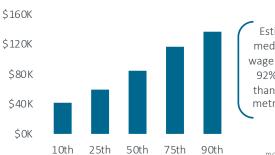
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



Estimated median tech wage \$84,274, 92% higher than median metro wage⁵

> ן 2021 data sst recent available



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118,978 NET TECH EMPLOYMENT¹

9.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

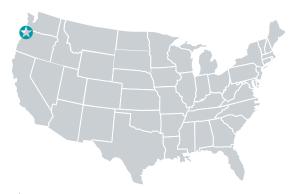
\$26.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

14.4% ECONOMIC IMPACT AS A % OF OVERALL

6,284 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

38,695 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



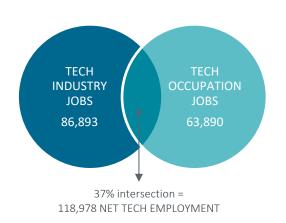
18th NET TECH EMPLOYMENT RANK

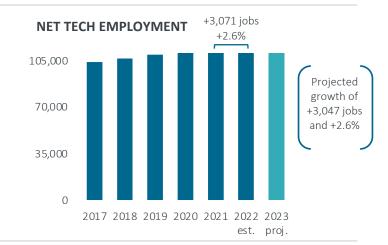
15th NET TECH EMPLOYMENT JOBS ADDED RANK

29th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

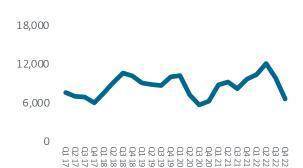
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



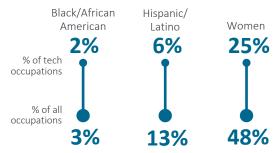
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	23,248	3.6%
IT Support Specialist and Repair Technicians	7,586	2.2%
Cybersecurity and Systems Engineers	7,063	2.4%
Network Engineers, Architects and Support	6,490	1.5%
Emerging Tech, IT Project Mgt. and Other	2,934	3.2%
Database, Data Science, Analytics and CS	2,723	3.7%

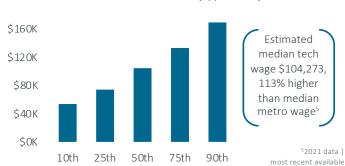
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]





Full MSA name: Providence-Warwick, RI-MA

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

32,783 NET TECH EMPLOYMENT¹

4.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$5.3b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.7% ECONOMIC IMPACT AS A % OF OVERALL

2,725 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

11,981 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

36.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



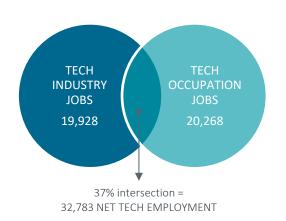
38th NET TECH EMPLOYMENT RANK

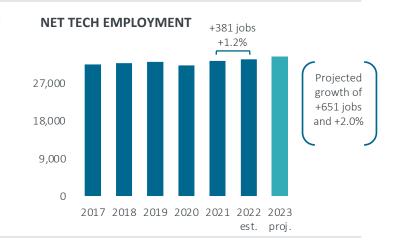
41st NET TECH EMPLOYMENT JOBS ADDED RANK

2nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

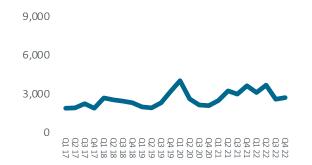
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

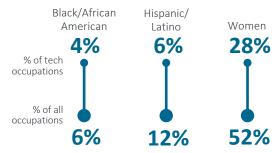
LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	6,208	3.4%
Network Engineers, Architects and Support	3,352	0.9%
Cybersecurity and Systems Engineers	2,868	2.2%
IT Support Specialist and Repair Technicians	2,851	1.4%
Emerging Tech, IT Project Mgt. and Other	1,523	1.9%
Database, Data Science, Analytics and CS	1,470	2.5%

³Projected growth rate for 2023

10th

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$50K

75th

90th

⁵2021 data | most recent available



25th

74,406 NET TECH EMPLOYMENT¹

9.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

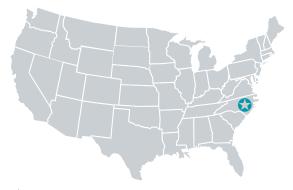
\$17.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

16.5% ECONOMIC IMPACT AS A % OF OVERALL

4,648 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

37,078 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



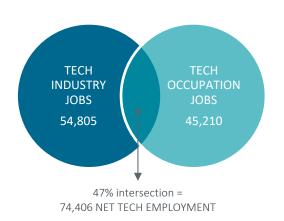
24th NET TECH EMPLOYMENT RANK

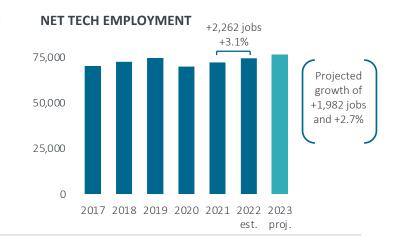
20th NET TECH EMPLOYMENT JOBS ADDED RANK

14th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

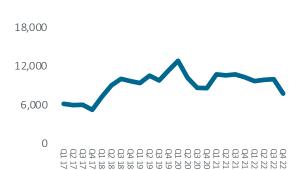
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



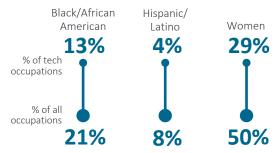
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	20,292	3.9%
Cybersecurity and Systems Engineers	6,319	2.8%
IT Support Specialist and Repair Technicians	5,932	2.3%
Network Engineers, Architects and Support	4,816	2.1%
Database, Data Science, Analytics and CS	1,945	4.5%
Emerging Tech, IT Project Mgt. and Other	1,556	4.2%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$103,019, \$80K 134% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available

Full MSA name: Sacramento-Roseville-Folsom, CA

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

53,227 NET TECH EMPLOYMENT¹

5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

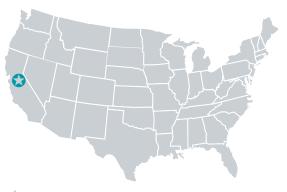
\$5.9b ECONOMIC IMPACT [estimated direct impact of tech sector]

3.7% ECONOMIC IMPACT AS A % OF OVERALL

1,899 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

24,660 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

23.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



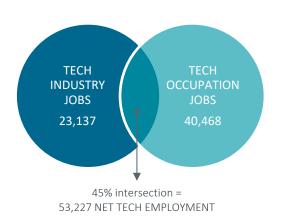
33rd NET TECH EMPLOYMENT RANK

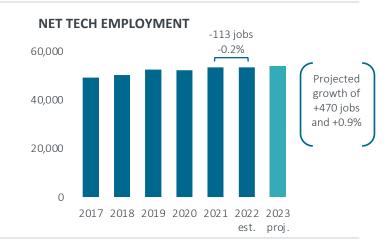
49th NET TECH EMPLOYMENT JOBS ADDED RANK

46th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

Lst DIVERSITY INDEX QUARTILE [1st = top | see footnote]

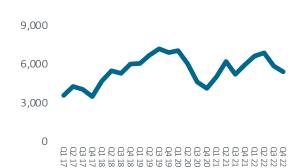
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



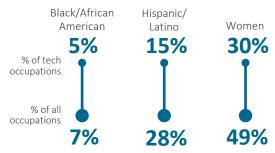
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
IT Support Specialist and Repair Technicians	12,693	0.4%
Software, Programmers, Web and QA	10,177	2.0%
Emerging Tech, IT Project Mgt. and Other	3,765	1.2%
Cybersecurity and Systems Engineers	3,453	1.7%
Network Engineers, Architects and Support	3,145	1.0%
Database, Data Science, Analytics and CS	2,342	3.2%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$99,959, \$80K 104% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available



Salt Lake City

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

67,498 NET TECH EMPLOYMENT¹

8.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$12.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.5% ECONOMIC IMPACT AS A % OF OVERALL

6,210 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

20,284 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



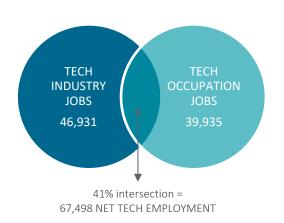
27th NET TECH EMPLOYMENT RANK

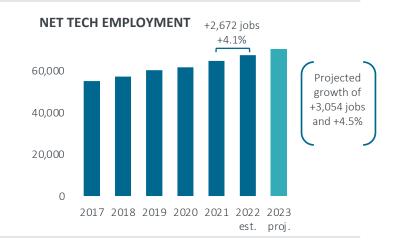
16th NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

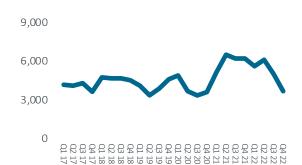
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



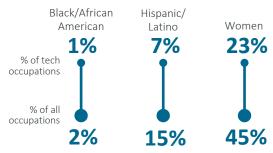
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	16,189	6.2%
IT Support Specialist and Repair Technicians	7,216	3.4%
Emerging Tech, IT Project Mgt. and Other	4,261	3.6%
Network Engineers, Architects and Support	3,268	4.5%
Cybersecurity and Systems Engineers	2,633	7.0%
Database, Data Science, Analytics and CS	2,612	5.5%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$85,476, \$80K 95% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 75th 90th



San Antonio

Full MSA name: San Antonio-New Braunfels, TX

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

51,200 NET TECH EMPLOYMENT1

4.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$6.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

4.7% ECONOMIC IMPACT AS A % OF OVERALL

2,132 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

27,634 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

25.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



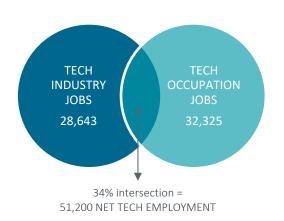
35th NET TECH EMPLOYMENT RANK

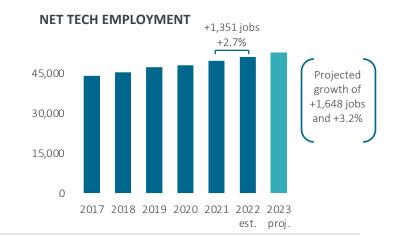
 26^{th} NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

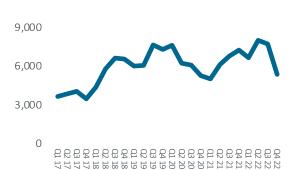
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



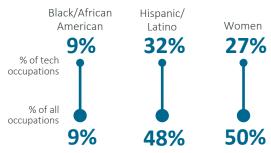
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	8,260	5.0%
IT Support Specialist and Repair Technicians	5,732	2.5%
Cybersecurity and Systems Engineers	4,660	3.8%
Network Engineers, Architects and Support	4,435	2.5%
Emerging Tech, IT Project Mgt. and Other	4,276	2.7%
Database, Data Science, Analytics and CS	1,588	3.9%

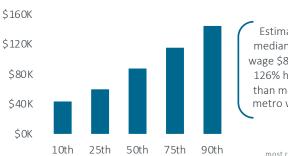
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



Estimated median tech wage \$87,251, 126% higher than median metro wage⁵

> 52021 data I most recent available



STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

118,428 NET TECH EMPLOYMENT¹

7.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$28.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

10.7% ECONOMIC IMPACT AS A % OF OVERALL

4,239 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

58,439 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



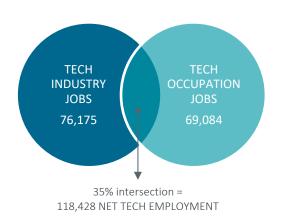
19th NET TECH EMPLOYMENT RANK

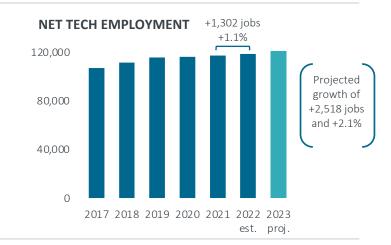
27th NET TECH EMPLOYMENT JOBS ADDED RANK

48th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

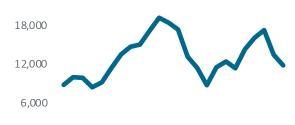
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



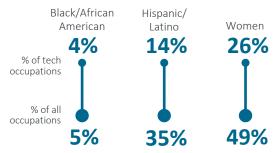
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	26,674	3.3%
Emerging Tech, IT Project Mgt. and Other	9,415	1.8%
Cybersecurity and Systems Engineers	6,636	3.3%
Network Engineers, Architects and Support	5,665	2.1%
IT Support Specialist and Repair Technicians	5,628	1.9%
Database, Data Science, Analytics and CS	3,680	4.0%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$114,824, \$80K 138% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

San Francisco

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

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

350,662 NET TECH EMPLOYMENT¹

14.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$176.2b ECONOMIC IMPACT [estimated direct impact of tech sector]

26.8% ECONOMIC IMPACT AS A % OF OVERALL

10,638 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

136,796 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

42.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



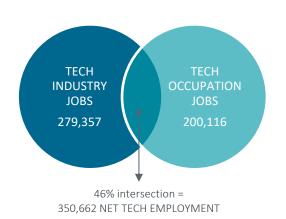
5th NET TECH EMPLOYMENT RANK

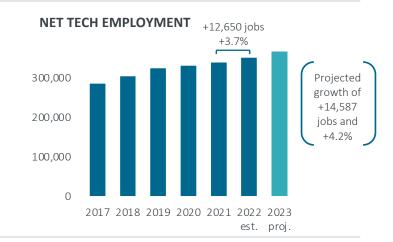
NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1 Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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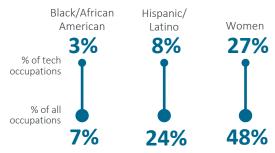
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	89,904	4.8%
Emerging Tech, IT Project Mgt. and Oth	ner 21,716	2.2%
Cybersecurity and Systems Engineers	20,562	4.2%
Network Engineers, Architects and Sup	port 13,353	3.6%
IT Support Specialist and Repair Techni	cians 12,501	4.0%
Database, Data Science, Analytics and	CS 11,252	4.9%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$200K Estimated median tech \$150K wage \$149,419, 138% higher \$100K than median metro wage⁵ \$50K ŚOK 52021 data I 10th 25th 75th 90th most recent available

0

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

STATE OF TECHNOLOGY SUMMARY [note: definition changes¹]

360,904 NET TECH EMPLOYMENT¹

31.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

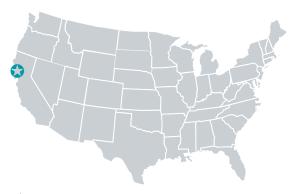
\$221.8b ECONOMIC IMPACT [estimated direct impact of tech sector]

57.1% ECONOMIC IMPACT AS A % OF OVERALL

6,441 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

103,078 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

42.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



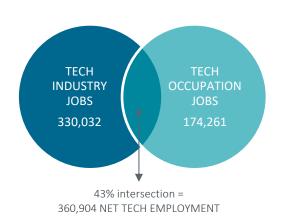
4th NET TECH EMPLOYMENT RANK

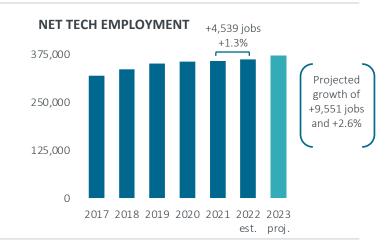
NET TECH EMPLOYMENT JOBS ADDED RANK 10th

49th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

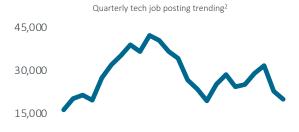
DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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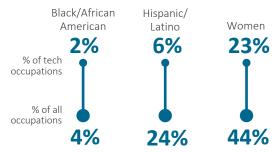
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	87,696	3.9%
Emerging Tech, IT Project Mgt. and Other	18,111	2.0%
Cybersecurity and Systems Engineers	15,081	3.7%
Network Engineers, Architects and Support	9,648	2.6%
Database, Data Science, Analytics and CS	8,268	4.1%
IT Support Specialist and Repair Technicians	7,639	3.6%

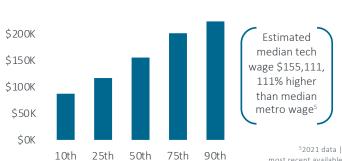
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



most recent available

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

289,325 NET TECH EMPLOYMENT¹

12.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

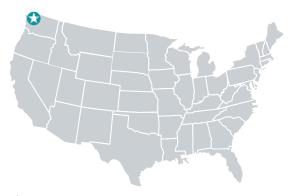
\$131.0b ECONOMIC IMPACT [estimated direct impact of tech sector]

28.9% ECONOMIC IMPACT AS A % OF OVERALL

12,369 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

95,251 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

44.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



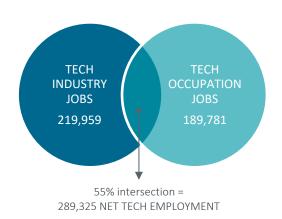
7th NET TECH EMPLOYMENT RANK

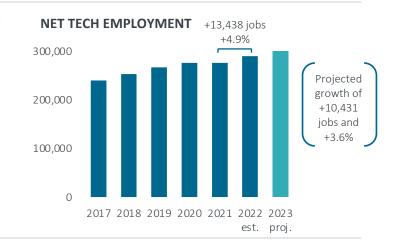
3rd NET TECH EMPLOYMENT JOBS ADDED RANK

23rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

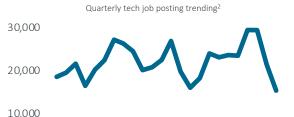
2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



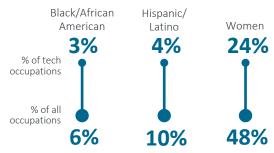
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	111,418	4.0%
Cybersecurity and Systems Engineers	16,542	4.0%
IT Support Specialist and Repair Technicians	15,629	3.3%
Network Engineers, Architects and Support	12,083	3.5%
Emerging Tech, IT Project Mgt. and Other	11,386	3.0%
Database, Data Science, Analytics and CS	8,158	4.6%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$200K Estimated \$150K median tech wage \$135,746, \$100K 138% higher than median \$50K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

STATE OF TECHNOLOGY SUMMARY

73,485 NET TECH EMPLOYMENT¹

5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

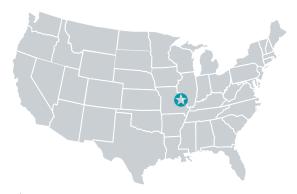
\$13.4b ECONOMIC IMPACT [estimated direct impact of tech sector]

7.1% ECONOMIC IMPACT AS A % OF OVERALL

2,699 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

42,066 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

28.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



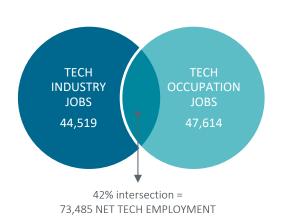
26th NET TECH EMPLOYMENT RANK

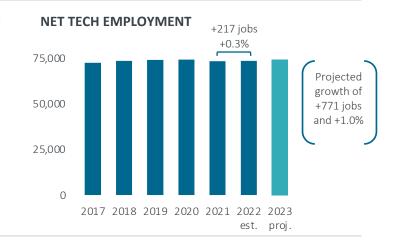
44th NET TECH EMPLOYMENT JOBS ADDED RANK

45th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

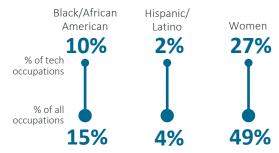
	2022	2023 % Change ³
Software, Programmers, Web and QA	16,319	2.5%
IT Support Specialist and Repair Technicians	8,251	0.5%
Network Engineers, Architects and Support	7,397	-0.1%
Cybersecurity and Systems Engineers	5,667	1.4%
Emerging Tech, IT Project Mgt. and Other	3,227	1.2%
Database, Data Science, Analytics and CS	2,756	2.1%

³Projected growth rate for 2023

ŚOK

10th

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

\$160K \$120K \$80K \$40K \$40K

75th

90th

⁵2021 data | most recent available



50th

25th

Tampa

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

86,887 NET TECH EMPLOYMENT¹

6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$17.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

9.0% ECONOMIC IMPACT AS A % OF OVERALL

5,190 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

48,136 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

26.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



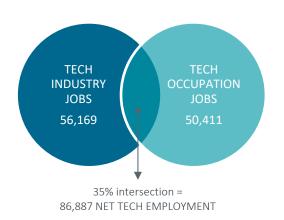
23rd NET TECH EMPLOYMENT RANK

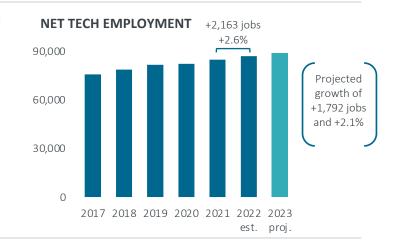
22nd NET TECH EMPLOYMENT JOBS ADDED RANK

TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

DIVERSITY INDEX QUARTILE [1st = top | see footnote]

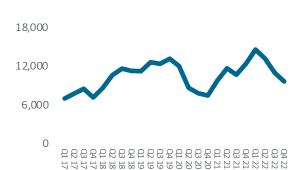
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



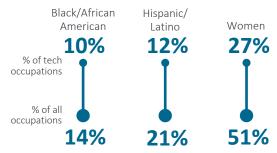
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	16,610	4.1%
IT Support Specialist and Repair Technicians	9,076	1.2%
Cybersecurity and Systems Engineers	7,700	3.0%
Network Engineers, Architects and Support	6,899	1.6%
Database, Data Science, Analytics and CS	2,587	3.3%
Emerging Tech, IT Project Mgt. and Other	2,333	2.8%

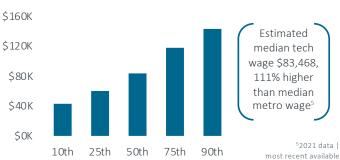
³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile]



⁵2021 data |



STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

17,351 NET TECH EMPLOYMENT¹

6.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

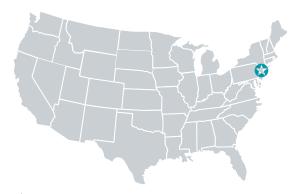
\$2.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

5.7% ECONOMIC IMPACT AS A % OF OVERALL

789 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

13,797 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

29.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



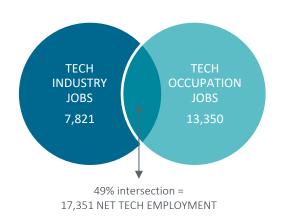
50th NET TECH EMPLOYMENT RANK

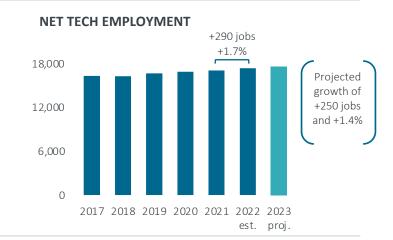
42nd NET TECH EMPLOYMENT JOBS ADDED RANK

39th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

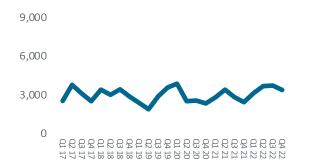
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



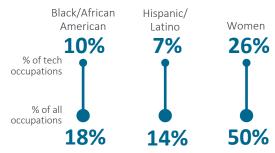
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web a	nd QA 4,881	2.4%
Network Engineers, Architects a	and Support 1,796	1.1%
IT Support Specialist and Repair	Technicians 1,764	1.2%
Cybersecurity and Systems Engi	neers 1,709	2.5%
Emerging Tech, IT Project Mgt.	and Other 764	1.5%
Database, Data Science, Analyti	cs and CS 733	2.8%

³Projected growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$111,136, \$80K 101% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 50th 75th 90th most recent available

Washington D.C.

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

STATE OF TECHNOLOGY SUMMARY [note: definition changes1]

368,253 NET TECH EMPLOYMENT¹

10.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE

\$75.6b ECONOMIC IMPACT [estimated direct impact of tech sector]

12.9% ECONOMIC IMPACT AS A % OF OVERALL

20,189 TECH BUSINESS ESTABLISHMENTS [firms with payroll]

208,808 EMPLOYER JOB POSTINGS [2022 total for tech occupations]

30.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



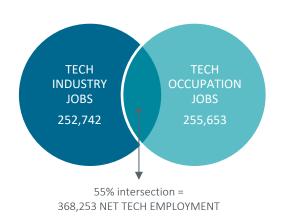
3rd NET TECH EMPLOYMENT RANK

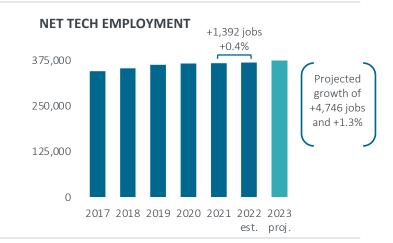
25th NET TECH EMPLOYMENT JOBS ADDED RANK

27th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

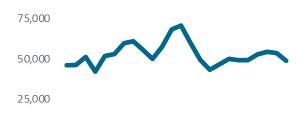
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly comparable | See Methodology page





EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



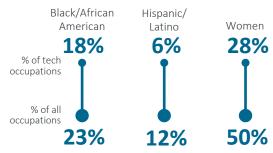
²CompTIA analysis of Lightcast employer job posting data | core tech jobs

LEADING TECH OCCUPATIONS

	2022	2023 % Change ³
Software, Programmers, Web and QA	91,765	2.3%
Emerging Tech, IT Project Mgt. and Other	37,979	1.9%
Cybersecurity and Systems Engineers	36,353	2.0%
Network Engineers, Architects and Support	29,840	0.2%
IT Support Specialist and Repair Technicians	21,874	1.1%
Database, Data Science, Analytics and CS	15,107	2.0%

 $^{3}\text{Projected}$ growth rate for 2023

TECH WORKFORCE CHARACTERISTICS⁴



⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

TECH OCCUPATION WAGES [by percentile] \$160K Estimated \$120K median tech wage \$119,158, \$80K 95% higher than median \$40K metro wage⁵ ŚOK 52021 data I 10th 25th 75th 90th most recent available



APPENDIX TABLES – A NET TECH EMPLOYMENT

For an explanation of the net tech employment calculation, see page $5\,$

	2017	2018	2019	2020	2021	2022 est.	2023 proj.
United States	8,058,855	8,295,341	8,529,329	8,606,573	8,869,967	9,156,390	9,428,713
Alabama	78,167	80,482	81,793	82,440	85,094	87,524	89,575
Alaska	10,398	10,098	9,876	9,693	9,519	9,525	9,644
Arizona	170,477	177,223	185,388	190,989	196,106	201,183	207,860
Arkansas	38,172	37,048	37,413	38,023	38,797	39,896	41,024
California	1,290,888	1,347,660	1,398,582	1,412,447	1,449,678	1,487,864	1,529,698
Colorado	211,489	219,602	226,357	230,102	238,335	248,508	257,468
Connecticut	93,417	93,346	92,953	91,757	93,025	95,324	96,375
Delaware	23,466	23,749	23,935	23,849	24,346	24,792	25,047
District of Columbia	63,358	64,840	67,683	69,444	70,133	70,554	72,079
Florida	395,762	411,903	428,067	436,599	462,564	484,593	501,552
Georgia	263,886	269,153	273,858	274,365	283,405	294,133	304,811
Hawaii	19,370	19,597	19,613	18,869	19,939	20,410	20,761
Idaho	33,281	35,086	35,957	36,020	38,395	39,897	41,313
Illinois	312,494	315,214	320,853	315,146	317,336	325,685	332,153
Indiana	107,918	108,655	110,980	111,383	115,347	118,872	122,365
Iowa	63,734	64,934	65,848	64,806	64,834	65,906	67,348
Kansas	61,084	61,451	61,337	63,996	63,459	65,245	66,707
Kentucky	63,603	62,980	62,311	62,170	63,402	64,719	66,195
Louisiana	44,982	45,355	45,600	44,995	46,335	48,186	49,937
Maine	21,389	22,491	22,686	22,613	23,709	24,769	25,646
Maryland	200,636	207,697	212,888	212,014	218,420	222,031	227,139
Massachusetts	293,875	299,734	308,426	306,625	313,655	318,631	326,891
Michigan	191,223	193,093	194,902	189,516	196,902	202,190	206,694
Minnesota	180,610	183,070	184,414	182,646	185,129	187,836	190,378
Mississippi	26,008	25,958	26,334	26,664	27,570	28,609	29,820
Missouri	143,377	146,227	147,554	148,642	151,451	153,419	157,672
Montana	14,639	15,086	15,186	15,450	16,462	16,971	17,532
Nebraska	47,883	48,430	49,437	50,222	51,893	52,556	53,832
Nevada	38,506	41,609	43,026	42,217	45,654	48,595	50,909
New Hampshire	51,169	52,274	53,279	53,244	54,795	56,748	58,312
New Jersey	244,149	248,332	250,408	249,645	262,748	271,312	278,010
New Mexico	31,034	31,837	32,898	33,377	34,334	35,043	35,530
New York	487,282	498,889	508,800	508,953	516,969	535,457	549,166
North Carolina	244,841	254,736	262,617	271,523	285,433	293,284	303,006
North Dakota	12,725	12,639	12,865	12,802	12,948	13,272	13,546
Ohio	246,178	250,538	254,529	254,283	262,955	270,462	276,238
Oklahoma	53,188	54,279	55,362	55,875	56,747	57,807	59,075
Oregon	119,911	123,084	127,113	129,425	135,303	139,350	143,216
Pennsylvania	273,036	277,827	284,347	282,794	290,529	300,447	308,745
Rhode Island	25,338	25,783	26,310	25,949	27,392	27,806	28,591
South Carolina	75,133	77,212	79,157	79,842	82,593	86,446	90,231
South Dakota	13,902	14,411	14,770	14,939	15,386	15,855	16,419
Tennessee	102,175	104,839	107,416	111,307	116,681	123,909	129,871
Texas	693,205	725,112	762,686	787,969	821,947	867,278	905,715
Utah	98,968	103,258	108,825	112,191	118,319	123,450	129,552
Vermont	16,268	16,346	16,496	15,911	16,394	16,687	16,940
Virginia	325,027	333,710	343,080	348,624	353,815	358,713	366,292
Washington	283,477	298,720	313,782	323,316	329,131	347,093	360,587
West Virginia	18,921	18,731	18,742	18,883	19,715	20,506	21,213
Wisconsin	133,226	135,143	136,712	136,439	138,926	140,727	143,346
Wyoming	5,500	5,793	5,913	5,783	6,047	6,348	6,673



For an explanation of the net tech employment calculation, see page $5\,$

	2017	2018	2019	2020	2021	2022 est.	2023 proj.
United States	8,058,855	8,295,341	8,529,329	8,606,573	8,869,967	9,156,390	9,428,713
Albuquerque	20,134	20,638	21,176	21,607	21,912	22,298	22,399
Atlanta	207,250	210,241	215,217	214,296	215,728	220,242	226,248
Austin	129,637	137,796	147,833	155,948	162,834	173,629	183,371
Baltimore	97,280	101,151	103,579	103,575	104,187	103,799	105,752
Boise	22,633	23,755	24,083	23,893	24,551	25,178	25,716
Boston	257,787	261,811	269,885	268,654	270,152	272,572	278,126
Buffalo	23,393	24,310	23,703	22,378	22,359	23,038	23,354
Charleston	16,855	17,540	17,430	17,669	17,927	18,807	19,561
Charlotte	74,355	77,275	77,690	83,224	85,541	88,137	90,861
Chicago	247,959	248,723	251,494	245,904	241,922	245,390	247,518
Cincinnati	49,449	50,944	50,880	51,148	52,638	53,453	54,382
Cleveland	51,019	51,318	52,105	52,073	53,475	55,193	56,101
Colorado Springs	24,144	24,731	25,343	24,893	25,484	26,312	26,823
Dallas	274,179	284,390	298,341	305,987	315,337	329,347	342,027
Denver	130,815	136,378	140,445	143,524	148,590	154,948	160,977
Des Moines	23,031	23,759	23,733	24,117	24,314	24,378	24,812
Detroit	105,641	105,268	105,612	102,832	102,714	103,774	104,257
Hartford	34,397	34,185	34,684	34,570	34,234	34,697	35,018
Houston	132,493	135,230	140,123	141,742	145,054	150,145	153,514
Huntsville	24,418	25,753	26,387	27,104	27,456	27,530	28,022
Indianapolis	53,002	53,022	54,804	55,101	55,869	57,055	58,686
Kansas City	71,144	72,268	72,928	75,877	74,268	74,404	75,963
Las Vegas	27,027	28,944	29,767	28,613	30,451	32,389	33,834
Los Angeles	359,155	366,497	372,355	371,457	378,882	385,563	389,912
Memphis	18,591	18,869	18,683	19,626	20,209	20,762	21,294
Miami	113,185	116,394	119,126	120,237	125,350	130,516	134,030
Milwaukee	47,876	47,863	47,468	45,907	45,888	46,124	46,014
Minneapolis	145,865	148,901	150,220	149,225	149,440	150,516	151,554
Nashville	44,360	45,593	47,512	49,101	49,633	52,768	55,149
New Orleans	15,244	15,074	15,420	15,955	16,088	16,805	17,419
New York City	504,167	516,163	529,844	532,690	540,230	558,651	571,520
Oklahoma City	24,053	24,216	24,335	24,744	25,252	25,920	26,246
Omaha	29,741	29,682	30,021	30,359	30,896	30,584	30,964
Orlando	58,646	61,220	62,611	62,087	64,788	67,061	68,796
Philadelphia	153,452	153,968	157,825	157,255	153,337	155,592	156,773
Phoenix	140,323	145,146	151,431	156,664	159,544	162,630	167,421
Pittsburgh	61,745	63,985	63,124	62,886	62,491	62,469	63,309
Portland	103,853	106,623	109,502	111,659	115,906	118,978	122,024
Providence	31,532	31,815	32,144	31,341	32,402	32,783	33,434
Raleigh	70,203	72,511	74,478	69,828	72,144	74,406	76,388
Sacramento	49,132	50,182	52,332	52,098	53,340	53,227	53,698
Salt Lake City	55,164	57,281	60,254	61,634	64,826	67,498	70,552
San Antonio	44,163	45,462	47,354	48,108	49,849	51,200	52,848
San Diego	106,895	111,375	115,601	116,002	117,126	118,428	120,946
San Francisco	284,576	303,371	323,789	329,971	338,012	350,662	365,249
San Jose	318,460	335,236	350,059	355,058	356,365	360,904	370,455
Seattle		252,618	266,424	275,603	275,887		299,756
St. Louis	239,195 72,440	73,435		74,214	73,268	289,325 73,485	74,257
Tampa	72,440 75,637	73,435 78,553	73,961 81,559	82,177	73,268 84,724	73,485 86,887	74,257 88,679
Trenton	16,330	78,553 16,267	16,678	16,890	17,061	17,351	17,601
Washington DC	344,989	352,981	361,818	365,356	366,861	368,253	372,999
Washington DC	5-4,505	552,501	501,010	303,330	300,001	300,233	3,2,333



NET TECH EMPLOYMENT 2022 est.		1						OBS ADDED 202	
ank	<u>State</u>	Employment	Rank	State	Jobs Added	Rank	<u>State</u>	Jobs Added	
	United States	9,156,390		United States	+286,424		United States	+272,323	
	California	1,487,864	1.	Texas	+45,331	1.	California	+41,834	
	Texas	867,278	2.	California	+38,186	2.	Texas	+38,438	
	New York	535,457	3.	Florida	+22,029	3.	Florida	+16,959	
	Florida	484,593	4.	New York	+18,487	4.	New York	+13,709	
	Virginia	358,713	5.	Washington	+17,962	5.	Washington	+13,494	
	Washington	347,093	6.	Georgia	+10,728	6.	Georgia	+10,678	
	Illinois	325,685	7.	Colorado	+10,174	7.	North Carolina	+9,722	
	Massachusetts	318,631	8.	Pennsylvania	+9,918	8.	Colorado	+8,960	
	Pennsylvania	300,447	9.	New Jersey	+8,563	9.	Pennsylvania	+8,298	
	Georgia	294,133	10.	Illinois	+8,350	10.	Massachusetts	+8,260	
	North Carolina	293,284	11.	North Carolina	+7,851	11.	Virginia	+7,579	
	New Jersey	271,312	12.	Ohio	+7,507	12.	New Jersey	+6,698	
	Ohio	270,462	13.	Tennessee	+7,228	13.	Arizona	+6,677	
	Colorado	248,508	14.	Michigan	+7,228	14.	Illinois	+6,468	
	Maryland	222,031	15.	Utah	+5,130	15.	Utah	+6,103	
	Michigan	202,031	16.	Arizona	+5,077	16.	Tennessee	+5,10:	
	Arizona	201,183	17.	Massachusetts	+4,976	17.	Ohio	+5,776	
	Minnesota	187,836	18.	Virginia	+4,898	18.	Maryland	+5,109	
	Missouri	153,419	19.	Oregon	+4,047	19.	Michigan	+4,505	
	Wisconsin	140,727	20.	South Carolina	+3,853	20.	Missouri	+4,252	
	Oregon	139,350	21.	Maryland	+3,610	21.	Oregon	+3,866	
	Tennessee	123,909	22.	Indiana	+3,525	22.	South Carolina	+3,78	
	Utah	123,450	23.	Nevada	+2,942	23.	Indiana	+3,493	
	Indiana	118,872	24.	Minnesota	+2,707	24.	Wisconsin	+2,619	
5.	Connecticut	95,324	25.	Alabama	+2,430	25.	Minnesota	+2,542	
6.	Alabama	87,524	26.	Connecticut	+2,299	26.	Nevada	+2,31	
7.	South Carolina	86,446	27.	Missouri	+1,968	27.	Alabama	+2,05	
8.	District of Columbia	70,554	28.	New Hampshire	+1,953	28.	Louisiana	+1,75	
9.	lowa	65,906	29.	Louisiana	+1,851	29.	New Hampshire	+1,56	
0.	Kansas	65,245	30.	Wisconsin	+1,801	30.	District of Columbia	+1,52	
1.	Kentucky	64,719	31.	Kansas	+1,786	31.	Kentucky	+1,47	
2.	Oklahoma	57,807	32.	Idaho	+1,503	32.	Kansas	+1,463	
3.	New Hampshire	56,748	33.	Kentucky	+1,317	33.	lowa	+1,44	
4.	Nebraska	52,556	34.	Arkansas	+1,099	34.	Idaho	+1,415	
5.	Nevada	48,595	35.	lowa	+1,073	35.	Nebraska	+1,276	
	Louisiana	48,186	36.	Oklahoma	+1,060	36.	Oklahoma	+1,268	
7.	Idaho	39,897	37.	Maine	+1,060	37.	Mississippi	+1,21	
8.	Arkansas	39,896	38.	Mississippi	+1,039	38.	Arkansas	+1,128	
	New Mexico	35,043	39.	West Virginia	+791	39.	Connecticut	+1,05	
	Mississippi	28,609	40.	New Mexico	+710	40.	Maine	+87	
	Rhode Island	27,806	41.	Nebraska	+663	41.	Rhode Island	+785	
	Delaware	24,792	42.	Montana	+509	42.	West Virginia	+70	
	Maine	24,769	43.	Hawaii	+471	43.	South Dakota	+564	
	West Virginia	20,506	44.	South Dakota	+469	44.	Montana	+562	
	Hawaii	20,410	45.	Delaware	+446	45.	New Mexico	+48	
	Montana	16,971	46.	District of Columbia	+421	46.	Hawaii	+35	
	Vermont	16,687	47.	Rhode Island	+421	47.	Wyoming	+325	
	South Dakota	15,855	48.	North Dakota	+324	48.	North Dakota	+275	
	North Dakota	13,272	48.	Wyoming	+324	49.	Delaware	+275	
				-					
0.	Alaska Wyoming	9,525 6,348	50. 51.	Vermont Alaska	+294 +6	50. 51.	Vermont Alaska	+253 +119	



NI	ET TECH EMPLOYME	TECH EMPLOYMENT 2022 est. NET TECH EMPLOYMENT		CH EMPLOYMENT JOBS	NT JOBS ADDED 2022 est.		ECH EMPLOYMENT JOI	BS ADDED 2023 proj.
Rank	State	Employment	Rank	State	% Change	Rank	State	% Change
	United States	9,156,390		United States	+3.2%		United States	+3.0%
1.	California	1,487,864	1.	Nevada	+6.4%	1.	Wyoming	+5.1%
2.	Texas	867,278	2.	Tennessee	+6.2%	2.	Utah	+4.9%
3.	New York	535,457	3.	Texas	+5.5%	3.	Tennessee	+4.8%
4.	Florida	484,593	4.	Washington	+5.5%	4.	Nevada	+4.8%
5.	Virginia	358,713	5.	Wyoming	+5.0%	5.	Texas	+4.4%
6.	Washington	347,093	6.	Florida	+4.8%	6.	South Carolina	+4.4%
7.	Illinois	325,685	7.	South Carolina	+4.7%	7.	Mississippi	+4.2%
8.	Massachusetts	318,631	8.	Maine	+4.5%	8.	Washington	+3.9%
9.	Pennsylvania	300,447	9.	Utah	+4.3%	9.	Louisiana	+3.6%
10.	Georgia	294,133	10.	Colorado	+4.3%	10.	Georgia	+3.6%
11.	North Carolina	293,284	11.	West Virginia	+4.0%	11.	Colorado	+3.6%
12.	New Jersey	271,312	12.	Louisiana	+4.0%	12.	South Dakota	+3.6%
13.	Ohio	270,462	13.	Idaho	+3.9%	13.	Idaho	+3.5%
14.	Colorado	248,508	14.	Georgia	+3.8%	14.	Maine	+3.5%
15.	Maryland	222,031	15.	Mississippi	+3.8%	15.	Florida	+3.5%
16.	Michigan	202,190	16.	New York	+3.6%	16.	West Virginia	+3.4%
17.	Arizona	201,183	17.	New Hampshire	+3.6%	17.	Arizona	+3.3%
18.	Minnesota	187,836	18.	Pennsylvania	+3.4%	18.	North Carolina	+3.3%
19.	Missouri	153,419	19.	New Jersey	+3.3%	19.	Montana	+3.3%
20.	Wisconsin	140,727	20.	Montana	+3.1%	20.	Indiana	+2.9%
21.	Oregon	139,350	21.	Indiana	+3.1%	21.	Arkansas	+2.8%
22.	Tennessee	123,909	22.	South Dakota	+3.0%	22.	Rhode Island	+2.8%
23.	Utah	123,450	23.	Oregon	+3.0%	23.	California	+2.8%
24.	Indiana	118,872	24.	Alabama	+2.9%	24.	Oregon	+2.8%
25.	Connecticut	95,324	25.	Ohio	+2.9%	25.	Missouri	+2.8%
26.	Alabama	87,524	26.	Arkansas	+2.8%	26.	Pennsylvania	+2.8%
27.	South Carolina	86,446	27.	Kansas	+2.8%	27.	New Hampshire	+2.8%
28.	District of Columbia	70,554	28.	North Carolina	+2.8%	28.	Massachusetts	+2.6%
29.	lowa	65,906	29.	Michigan	+2.7%	29.	New York	+2.6%
30.	Kansas	65,245	30.	California	+2.6%	30.	New Jersey	+2.5%
31.	Kentucky	64,719	31.	Illinois	+2.6%	31.	Nebraska	+2.4%
32.	Oklahoma	57,807	32.	Arizona	+2.6%	32.	Alabama	+2.3%
33.	New Hampshire	56,748	33.	North Dakota	+2.5%	33.	Maryland	+2.3%
34.	Nebraska	52,556	34.	Connecticut	+2.5%	34.	Kentucky	+2.3%
35.	Nevada	48,595	35.	Hawaii	+2.4%	35.	Kansas	+2.2%
36.	Louisiana	48,186	36.	Kentucky	+2.1%	36.	Michigan	+2.2%
37.	Idaho	39,897	37.	New Mexico	+2.1%	37.	Oklahoma	+2.2%
38.	Arkansas	39,896	38.	Oklahoma	+1.9%	38.	lowa	+2.2%
39.	New Mexico	35,043	39.	Delaware	+1.8%	39.	District of Columbia	+2.2%
40.	Mississippi	28,609	40.	Vermont	+1.8%	40.	Ohio	+2.1%
41.	Rhode Island	27,806	41.	lowa	+1.7%	41.	Virginia	+2.1%
42.	Delaware	24,792	42.	Maryland	+1.7%	42.	North Dakota	+2.1%
43.	Maine	24,769	43.	Massachusetts	+1.6%	43.	Illinois	+2.0%
44.	West Virginia	20,506	44.	Rhode Island	+1.5%	44.	Wisconsin	+1.9%
45.	Hawaii	20,410	45.	Minnesota	+1.5%	45.	Hawaii	+1.7%
46.	Montana	16,971	46.	Virginia	+1.4%	46.	Vermont	+1.5%
47.	Vermont	16,687	47.	Missouri	+1.3%	47.	New Mexico	+1.4%
48.	South Dakota	15,855	48.	Wisconsin	+1.3%	48.	Minnesota	+1.4%
49.	North Dakota	13,272	49.	Nebraska	+1.3%	49.	Alaska	+1.3%
50.	Alaska	9,525	50.	District of Columbia	+0.6%	50.	Connecticut	+1.1%
51.	Wyoming	6,348	51.	Alaska	+0.1%	51.	Delaware	+1.0%



NET TECH EMPLOYMENT 2022 est.		NET TECH EMPLOYMENT JOBS ADDED 2022 est.			NET T	ECH EMPLOYMENT J	OBS ADDED 2023	
Rank	State	Employment	Rank	<u>State</u>	Jobs Added	Rank	<u>State</u>	Jobs Added
	United States	9,156,390		United States	+286,424		United States	+272,323
1.	New York City	558,651	1.	New York City	+18,420	1.	San Francisco	+14,587
2.	Los Angeles	385,563	2.	Dallas	+14,010	2.	New York City	+12,869
3.	Washington DC	368,253	3.	Seattle	+13,438	3.	Dallas	+12,680
1.	San Jose	360,904	4.	San Francisco	+12,650	4.	Seattle	+10,431
5.	San Francisco	350,662	5.	Austin	+10,795	5.	Austin	+9,742
5.	Dallas	329,347	6.	Los Angeles	+6,681	6.	San Jose	+9,551
7.	Seattle	289,325	7.	Denver	+6,357	7.	Denver	+6,029
3.	Boston	272,572	8.	Miami	+5,166	8.	Atlanta	+6,005
).	Chicago	245,390	9.	Houston	+5,090	9.	Boston	+5,554
0.	Atlanta	220,242	10.	San Jose	+4,539	10.	Phoenix	+4,791
1.	Austin	173,629	11.	Atlanta	+4,514	11.	Washington DC	+4,746
2.	Phoenix	162,630	12.	Chicago	+3,468	12.	Los Angeles	+4,349
.3.	Philadelphia	155,592	13.	Nashville	+3,134	13.	Miami	+3,515
4.	Denver	154,948	14.	Phoenix	+3,086	14.	Houston	+3,369
.5.	Minneapolis	150,516	15.	Portland	+3,071	15.	Salt Lake City	+3,054
.6.	Houston	150,145	16.	Salt Lake City	+2,672	16.	Portland	+3,047
7.	Miami	130,516	17.	Charlotte	+2,596	17.	Charlotte	+2,724
8.	Portland	118,978	18.	Boston	+2,420	18.	San Diego	+2,518
9.	San Diego	118,428	19.	Orlando	+2,273	19.	Nashville	+2,381
0.	Baltimore	103,799	20.	Raleigh	+2,262	20.	Chicago	+2,128
1.	Detroit	103,774	21.	Philadelphia	+2,255	21.	Raleigh	+1,982
2.	Charlotte	88,137	22.	Tampa	+2,163	22.	Baltimore	+1,953
3.	Tampa	86,887	23.	Las Vegas	+1,938	23.	Tampa	+1,792
4.	Raleigh	74,406	24.	Cleveland	+1,719	24.	Orlando	+1,735
5.	Kansas City	74,404	25.	Washington DC	+1,392	25.	San Antonio	+1,648
6.	St. Louis	73,485	26.	San Antonio	+1,351	26.	Indianapolis	+1,631
7.	Salt Lake City	67,498	27.	San Diego	+1,302	27.	Kansas City	+1,559
8.	Orlando	67,061	28.	Indianapolis	+1,186	28.	Las Vegas	+1,445
9.	Pittsburgh	62,469	29.	Minneapolis	+1,076	29.	Philadelphia	+1,181
0.	Indianapolis	57,055	30.	Detroit	+1,060	30.	Minneapolis	+1,039
1.	Cleveland	55,193	31.	Charleston	+880	31.	Cincinnati	+929
2.	Cincinnati	53,453	32.	Colorado Springs	+827	32.	Cleveland	+908
3.	Sacramento	53,227	33.	Cincinnati	+815	33.	Pittsburgh	+840
4.	Nashville	52,768	34.	New Orleans	+717	34.	St. Louis	+771
5.	San Antonio	51,200	35.	Buffalo	+679	35.	Charleston	+754
6.	Milwaukee	46,124	36.	Oklahoma City	+667	36.	Providence	+651
7.	Hartford	34,697	37.	Boise	+627	37.	New Orleans	+614
8.	Providence	32,783	38.	Memphis	+553	38.	Boise	+538
9.	Las Vegas	32,389	39.	Hartford	+463	39.	Memphis	+532
0.	Omaha	30,584	40.	Albuquerque	+386	40.	Colorado Springs	+511
1.	Huntsville	27,530	41.	Providence	+381	41.	Huntsville	+492
2.	Colorado Springs	26,312	42.	Trenton	+290	42.	Detroit	+483
3.	Oklahoma City	25,920	43.	Milwaukee	+236	43.	Sacramento	+470
4.	Boise	25,178	44.	St. Louis	+217	44.	Des Moines	+434
5.	Des Moines	24,378	45.	Kansas City	+137	45.	Omaha	+379
6.	Buffalo	23,038	46.	Huntsville	+74	46.	Oklahoma City	+327
7.	Albuquerque	22,298	47.	Des Moines	+64	47.	Hartford	+321
8.	Memphis	20,762	48.	Pittsburgh	-22	48.	Buffalo	+316
9.	Charleston	18,807	49.	Sacramento	-113	49.	Trenton	+250
0.	Trenton	17,351	50.	Omaha	-312	50.	Albuquerque	+101
51.	New Orleans	16,805	51.	Baltimore	-389	51.	Milwaukee	-111



N	ET TECH EMPLOYMI	ENT 2022 est.	NET TE	CH EMPLOYMENT JOE	T JOBS ADDED 2022 est. NET TECH EMPLOYM		ECH EMPLOYMENT JO	DBS ADDED 2023 proj.
Rank	State	Employment	Rank	<u>State</u>	% Change	Rank	State	% Change
	United States	9,156,390		United States	+3.2%		United States	+3.0%
1.	New York City	558,651	1.	Austin	+6.6%	1.	Austin	+5.6%
2.	Los Angeles	385,563	2.	Las Vegas	+6.4%	2.	Salt Lake City	+4.5%
3.	Washington DC	368,253	3.	Nashville	+6.3%	3.	Nashville	+4.5%
4.	San Jose	360,904	4.	Charleston	+4.9%	4.	Las Vegas	+4.5%
5.	San Francisco	350,662	5.	Seattle	+4.9%	5.	San Francisco	+4.2%
6.	Dallas	329,347	6.	New Orleans	+4.5%	6.	Charleston	+4.0%
7.	Seattle	289,325	7.	Dallas	+4.4%	7.	Denver	+3.9%
8.	Boston	272,572	8.	Denver	+4.3%	8.	Dallas	+3.8%
9.	Chicago	245,390	9.	Salt Lake City	+4.1%	9.	New Orleans	+3.7%
10.	Atlanta	220,242	10.	Miami	+4.1%	10.	Seattle	+3.6%
11.	Austin	173,629	11.	San Francisco	+3.7%	11.	San Antonio	+3.2%
12.	Phoenix	162,630	12.	Houston	+3.5%	12.	Charlotte	+3.1%
13.	Philadelphia	155,592	13.	Orlando	+3.5%	13.	Phoenix	+2.9%
14.	Denver	154,948	14.	New York City	+3.4%	14.	Indianapolis	+2.9%
15.	Minneapolis	150,516	15.	Colorado Springs	+3.2%	15.	Atlanta	+2.7%
16.	Houston	150,145	16.	Cleveland	+3.2%	16.	Miami	+2.7%
17.	Miami	130,516	17.	Raleigh	+3.1%	17.	Raleigh	+2.7%
18.	Portland	118,978	18.	Buffalo	+3.0%	18.	San Jose	+2.6%
19.	San Diego	118,428	19.	Charlotte	+3.0%	19.	Orlando	+2.6%
20.	Baltimore	103,799	20.	Memphis	+2.7%	20.	Memphis	+2.6%
21.	Detroit	103,774	21.	San Antonio	+2.7%	21.	Portland	+2.6%
22.	Charlotte	88,137	22.	Portland	+2.6%	22.	New York City	+2.3%
23.	Tampa	86,887	23.	Oklahoma City	+2.6%	23.	Houston	+2.2%
24.	Raleigh	74,406	24.	Boise	+2.6%	24.	Boise	+2.1%
25.	Kansas City	74,404	25.	Tampa	+2.6%	25.	San Diego	+2.1%
26.	St. Louis	73,485	26.	Indianapolis	+2.1%	26.	Kansas City	+2.1%
27.	Salt Lake City	67,498	27.	Atlanta	+2.1%	27.	Tampa	+2.1%
28.	Orlando	67,061	28.	Phoenix	+1.9%	28.	Boston	+2.0%
29.	Pittsburgh	62,469	29.	Los Angeles	+1.8%	29.	Providence	+2.0%
30.	Indianapolis	57,055	30.	Albuquerque	+1.8%	30.	Colorado Springs	+1.9%
31.	Cleveland	55,193	31.	Trenton	+1.7%	31.	Baltimore	+1.9%
32.	Cincinnati	53,453	32.	Cincinnati	+1.5%	32.	Huntsville	+1.8%
33.	Sacramento	53,227	33.	Philadelphia	+1.5%	33.	Des Moines	+1.8%
34.	Nashville	52,768	34.	Chicago	+1.4%	34.	Cincinnati	+1.7%
35.	San Antonio	51,200	35.	Hartford	+1.4%	35.	Cleveland	+1.6%
36.	Milwaukee	46,124	36.	San Jose	+1.3%	36.	Trenton	+1.4%
37.	Hartford	34,697	37.	Providence	+1.2%	37.	Buffalo	+1.4%
38.	Providence	32,783	38.	San Diego	+1.1%	38.	Pittsburgh	+1.3%
39.	Las Vegas	32,389	39.	Detroit	+1.0%	39.	Washington DC	+1.3%
40.	Omaha	30,584	40.	Boston	+0.9%	40.	Oklahoma City	+1.3%
41.	Huntsville	27,530	41.	Minneapolis	+0.7%	41.	Omaha	+1.2%
42.	Colorado Springs	26,312	42.	Milwaukee	+0.5%	42.	Los Angeles	+1.1%
43.	Oklahoma City	25,920	43.	Washington DC	+0.4%	43.	St. Louis	+1.0%
44.	Boise	25,178	44.	St. Louis	+0.3%	44.	Hartford	+0.9%
45.	Des Moines	24,378	45.	Huntsville	+0.3%	45.	Sacramento	+0.9%
46.	Buffalo	23,038	46.	Des Moines	+0.3%	46.	Chicago	+0.9%
47.	Albuquerque	22,298	47.	Kansas City	+0.2%	47.	Philadelphia	+0.8%
48.	Memphis	20,762	48.	Pittsburgh	-0.0%	48.	Minneapolis	+0.7%
49.	Charleston	18,807	49.	Sacramento	-0.2%	49.	Detroit	+0.5%
50.	Trenton	17,351	50.	Baltimore	-0.4%	50.	Albuquerque	+0.5%
51.	New Orleans	16,805	51.	Omaha	-1.0%	51.	Milwaukee	-0.2%



APPENDIX TABLES – B TECH WORKFORCE CHARACTERISTICS

Data covers core information technology occupations across 7 primary Bureau of Labor Statistics race and ethnicity groups | 1st quartile = highest level of diversity

	American Indian or Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	Two or More <u>Races</u>	<u>White</u>	Diversity Index Quartile
United States	12,313	1,231,022	447,987	446,012	6,819	131,778	3,317,440	NA
Alabama	167	2,946	9,528	1,449	32	1,181	42,115	3 rd quartile
Alaska	352	716	191	282	25	362	3,902	2 nd quartile
Arizona	1,165	18,254	5,411	18,847	208	3,195	75,191	2 nd quartile
Arkansas	115	2,614	2,439	1,110	30	842	19,798	3 rd quartile
California	1,216	378,528	28,512	101,843	2,128	23,859	303,986	1 st quartile
Colorado	350	15,508	4,359	12,652	161	3,705	112,946	3 rd quartile
Connecticut	49	11,344	3,553	3,867	29	946	40,432	2 nd quartile
Delaware	37	4,510	2,417	742	<10	384	10,385	1st quartile
District of Columbia	48	8,931	14,792	3,546	45	2,152	25,785	1st quartile
Florida	398	32,766	30,459	47,123	193	6,240	167,990	1 st quartile
Georgia	199	32,734	41,277	8,249	102	3,753	93,243	1st quartile
Hawaii	<10	8,227	259	616	404	1,780	2,663	1st quartile
Idaho	63	1,233	267	1,412	20	607	18,543	4 th quartile
Illinois	178	46,245	14,774	15,215	117	3,359	124,500	2 nd quartile
Indiana	85	7,180	5,062	2,624	29	1,500	58,313	3 rd quartile
lowa	41	3,700	987	1,172	23	659	35,185	4 th quartile
Kansas	123	4,480	2,018	1,997	32	1,010	31,446	3 rd quartile
Kentucky	37	2,956	2,671	952	17	775	31,880	4 th quartile
Louisiana	73	1,662	5,387	1,001	11	537	18,523	2 nd quartile
Maine	24	692	269	294	<10	338	14,114	4 th quartile
Maryland	191	27,669	33,362	6,660	109	3,928	81,891	1 st quartile
Massachusetts	135	40,914	6,690	7,918	103	3,076	118,546	2 nd quartile
Michigan	251	19,937	11,029	3,995	46	2,911	95,704	3 rd quartile
Minnesota	220	19,903	4,042	2,790	51	2,137	86,738	3 rd quartile
Mississippi	24	749	4,019	379	<10	332	11,231	2 nd quartile
Missouri	170	9,433	7,419	2,449	52	2,077	70,069	3 rd quartile
Montana	126	307	106	285	<10	335	9,858	4 th quartile
Nebraska	120	3,122	1,470	1,562	17	720	28,572	3 rd quartile
Nevada	107	5,797	2,072	3,869	117	1,141	16,282	1st quartile
New Hampshire	17	3,115	351	713	<10	469	23,152	4 th quartile
New Jersey	125	61,220	12,178	13,431	97	2,482	86,973	1st quartile
New Mexico	642	1,373	642	6,985	12	587	12,087	1 st quartile
New York	366	81,026	24,602	25,843	261	6,442	178,180	1 st quartile
North Carolina	505	28,468	27,044	7,831	105	3,613	125,120	2 nd quartile
North Dakota	81	367	164	158	21	143	7,070	4 th quartile
Ohio	162	19,912	13,347	4,127	90	3,456	141,563	3 rd quartile
Oklahoma	1,366	2,955	2,273	2,050	28	2,324	27,292	2 nd quartile
Oregon	238	13,826	1,430	4,778	167	2,710	55,712	2 nd quartile
Pennsylvania	117	27,787	11,405	6,156	61	3,642	141,151	3 rd quartile
Rhode Island	17	2,345	679	1,159	<10	401	12,982	3 rd quartile
South Carolina	76	3,353	8,990	1 (20	16	1 117	26 570	2 nd quartile
				1,628		1,117	36,578	
South Dakota	119	436	124	198	<10	189	8,620	4 th quartile
Tennessee	96	6,498	9,669	2,312	80	1,637	58,693	3 rd quartile 1 st quartile
Texas Utah	1,006 217	118,047 5,792	47,573 886	82,688 4,865	539 370	10,422 1,721	240,682 58,117	4 th quartile
Varmont	-10	410	110	1.67	-10	1 - 1	0.100	4th
Vermont	<10	410 E4 407	112	167	<10	154	8,122	4 th quartile
Virginia	318	54,407	32,431	12,010	200	6,817	136,096	1st quartile
Washington	586	76,942	5,881	10,720	647	7,756	123,076	2 nd quartile
West Virginia	<10	483	403	194	<10	279	12,156	4 th quartile
Wisconsin	175	9,065	2,888	2,885	25	1,493	70,786	4 th quartile
Wyoming	21	136	72	214	<10	86	3,401	4 th quartile
Sources: Lightcast U.S. Bureau	of Labor Statistics CompTIA							



Data covers core information technology occupations across primary Bureau of Labor Statistics race and ethnicity groups.

	Black or Africa	an American	Hispa	nic or Latino		Women
	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce
United States	8%	12%	8%	17%	26%	49%
Alabama	17%	25%	3%	5%	29%	49%
Alaska	3%	4%	5%	8%	26%	47%
Arizona	4%	6%	15%	30%	26%	48%
Arkansas	9%	15%	4%	8%	29%	48%
California	3%	6%	12%	36%	26%	48%
Colorado	3%	4%	8%	19%	24%	48%
Connecticut	6%	11%	6%	15%	27%	51%
Delaware	13%	22%	4%	9%	27%	51%
District of Columbia	27%	32%	6%	11%	31%	53%
Florida	11%	16%	17%	25%	27%	49%
Georgia	23%	31%	5%	9%	29%	50%
Hawaii	2%	2%	4%	10%	29%	50%
Idaho	1%	2%	6%	14%	26%	48%
Illinois	7%	12%	7%	16%	27%	49%
Indiana	7%	9%	4%	7%	29%	48%
lowa	2%	4%	3%	7%	28%	48%
Kansas	5%	7%	5%	12%	25%	49%
Kentucky	7%	9%	2%	4%	28%	48%
Louisiana	20%	29%	4%	5%	28%	50%
Maine	2%	3%	2%	3%	30%	49%
Maryland	22%	27%	4%	9%	29%	50%
Massachusetts	4%	8%	4%	11%	25%	50%
Michigan	8%	12%	3%	5%	27%	48%
Minnesota	3%	7%	2%	5%	27%	49%
Mississippi	24%	36%	2%	4%	30%	50%
Missouri	8%	11%	3%	4%	26%	49%
Montana	1%	1%	3%	5%	29%	49%
Nebraska	4%	5%	4%	11%	28%	48%
Nevada	7%	9%	13%	27%	26%	48%
New Hampshire	1%	2%	3%	5%	25%	49%
New Jersey	7%	13%	8%	18%	25%	50%
New Mexico	3%	3%	31%	45%	26%	49%
New York	8%	14%	8%	17%	25%	51%
North Carolina	14%	22%	4%	8%	29%	50%
North Dakota	2%	3%	2%	5%	25%	45%
Ohio	7%	11%	2%	4%	27%	49%
Oklahoma	6%	8%	5%	10%	28%	49%
Oregon	2%	3%	6%	13%	25%	48%
Pennsylvania	6%	10%	3%	7%	26%	49%
Rhode Island	4%	6%	7%	13%	28%	52%
South Carolina	17%	26%	3%	6%	29%	50%
South Dakota	1%	2%	2%	5%	25%	48%
Tennessee	12%	17%	3%	5%	29%	49%
Texas Utah	9% 1%	13% 2%	17% 7%	35% 14%	26% 22%	48% 46%
Vermont Virginia	1% 13%	2% 20%	2% 5%	3% 9%	28% 27%	51% 49%
Washington	3%	5%	5%	12%	25%	48%
West Virginia	3%	4%	1%	2%	27%	49%
Wisconsin	3%	6%	3%	7%	28%	49%
Wyoming	2%	2%	5%	10%	25%	46%
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Data covers core information technology occupations across primary Bureau of Labor Statistics race and ethnicity groups.

	American Indian or Alaska Native	Asian	Black or African American	Hispanic or Latino	Native Hawaiian or Other Pacific Islander	Two or More Races	White	Diversity Index Quartile
United States	12,313	1,231,022	447,987	446,012	6,819	131,778	3,317,440	NA
Albuquerque	364	857	372	3,834	<10	311	7,113	2 nd quartile
Atlanta	155	26,578	29,889	6,032	81	2,447	67,056	1st quartile
Austin	178	19,910	5,947	13,307	105	2,194	48,295	1st quartile
Baltimore	85	11,590	15,018	2,648	43	1,736	40,830	2 nd quartile
Boise	37	778	159	802	14	317	10,562	4 th quartile
Boston	115	35,839	5,558	6,369	93	2,460	100,580	3 rd quartile
Buffalo	21	1,349	816	479	<10	207	9,185	4 th quartile
Charleston	23	638	1,941	389	<10	267	9,116	3 rd quartile
Charlotte	133	10,988	9,686	2,696	37	987	38,160	2 nd quartile
Chicago	138	37,110	11,485	12,548	98	2,317	89,688	2 nd quartile
Cincinnati	35	4,334	2,541	792	17	590	28,588	4 th quartile
Cleveland	34	3,893	3,170	993	11	618	29,008	4 th quartile
Colorado Springs	50	1,390	683	1,469	28	505	13,467	4 th quartile
Dallas Denver	441 230	52,598 10,601	19,910 2,973	22,073 8,401	199 99	3,067 2,312	85,669 72,077	1 st quartile 3 rd quartile
Deliver	230		2,373	0,101		2,312	72,077	3 quartife
Des Moines	19	2,141	485	567	<10	278	15,121	4 th quartile
Detroit	126	13,155	7,298	2,157	29	1,594	48,915	3 rd quartile
Hartford	19	4,853	1,549	1,463	12	342	15,930	3 rd quartile
Houston	164	23,910	10,263	16,480	102	2,213	44,454	1st quartile
Huntsville	84	883	2,480	515	15	411	14,682	4 th quartile
Indianapolis	45	4,102	3,016	1,229	20	734	27,558	4 th quartile
Kansas City	95	4,788	3,023	1,798	37	913	32,181	4 th quartile
Las Vegas	63	4,274	1,684	2,816	89	816	10,564	1st quartile
Los Angeles	312	82,728	9,400	37,419	461	7,275	86,466	1st quartile
Memphis	15	1,312	3,284	479	18	316	8,342	2 nd quartile
Miami	92	8,275	8,776	20,444	51	1,455	37,462	1st quartile
Milwaukee	51	3,256	1,593	1,199	<10	462	21,195	4 th quartile
Minneapolis	179	17,493	3,432	2,278	45	1,695	69,682	3 rd quartile
Nashville	47	3,157	3,785	1,112	33	666	25,716	3 rd quartile
New Orleans	23	617	1,855	494	<10	222	6,522	3 rd quartile
New York City	355	112,860	27,021	30,786	306	6,071	173,787	1st quartile
Oklahoma City	581	1,583	1,253	1,078	17	1,043	13,207	3 rd quartile
Omaha	75	2,068	1,080	988	13	436	17,747	4 th quartile
Orlando	61	5,362	4,434	6,515	37	804	24,651	2 nd quartile
Philadelphia	93	20,145	9,035	3,940	40	1,831	66,817	2 nd quartile
Phoenix	837	15,377	4,464	14,088	166	2,344	58,864	2 nd quartile
Pittsburgh	25	4,744	1,836	782	14	860	31,575	4 th quartile
Portland	171	12,961	1,278	3,615	150	2,203	43,512	3 rd quartile
Providence	20	2,565	801	1,270	11	431	15,169	3 rd quartile
Raleigh	115	6,544	5,699	1,885	21	775	30,171	2 nd quartile
Sacramento	94	12,848	2,062	5,981	177	1,450	17,856	1st quartile
Salt Lake City	120	3,959	521	2,896	227	874	31,337	4 th quartile
San Antonio	61	3,622	3,008	10,361	44	677	14,550	1st quartile
San Diego	125	24,093	2,637	10,006	189	2,117	29,917	1st quartile
San Francisco	260	101,622	6,127	15,509	583	5,307	70,708	2 nd quartile
San Jose	191	110,182	3,377	10,353	420	3,482	46,256	2 nd quartile
Seattle	436	70,908	5,013	8,511	520	6,228	98,165	2 nd quartile
St. Louis	66	5,330	4,557	1,188	23	858	35,593	3 rd quartile
Tampa	76	6,933	5,023	6,065	39	977	31,298	2 nd quartile
Trenton	<10	4,286	1,293	913	<10	215	6,629	1st quartile
Washington DC	316	58,935	46,089	14,236	237	7,478	128,362	1 st quartile
Sources: Lightcast U.S. Burea	u of Labor Statistics CompTIA							



Data covers core information technology occupations across primary Bureau of Labor Statistics race and ethnicity groups.

	Black or Africa	ın American	Hispar	nic or Latino		Women
	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce
United States	8%	12%	8%	17%	26%	49%
Albuquerque	3%	3%	30%	45%	26%	49%
Atlanta	23%	32%	5%	9%	28%	50%
Austin	7%	10%	15%	30%	25%	47%
Baltimore	21%	28%	4%	7%	28%	50%
Boise	1%	2%	6%	14%	26%	48%
Boston	4%	8%	4%	10%	25%	50%
Buffalo	7%	11%	4%	7%	25%	50%
Charleston	16%	25%	3%	5%	30%	50%
Charlotte	15%	23%	4%	8%	28%	48%
Chicago	7%	13%	8%	19%	26%	49%
Cincinnati	7%	12%	2%	4%	26%	49%
Cleveland	8%	14%	3%	5%	27%	50%
Colorado Springs	4%	5%	8%	17%	22%	49%
Dallas	11%	16%	12%	27%	26%	48%
Denver	3%	5%	9%	19%	25%	47%
Des Moines	3%	5%	3%	7%	28%	50%
Detroit	10%	16%	3%	5%	26%	47%
Hartford	6%	12%	6%	15%	27%	51%
Houston	11%	15%	17%	33%	28%	47%
Huntsville	13%	21%	3%	5%	26%	47%
Indianapolis	8%	13%	3%	7%	28%	49%
Kansas City	7%	11%	4%	8%	26%	49%
Las Vegas	8%	11%	14%	28%	26%	49%
Los Angeles	4%	6%	17%	38%	25%	49%
Memphis	24%	35%	3%	5%	30%	50%
Miami	11%	17%	27%	37%	26%	48%
Milwaukee	6%	11%	4%	9%	28%	50%
Minneapolis	4%	8%	2%	6%	27%	50%
Nashville	11%	15%	3%	6%	29%	49%
New Orleans	19%	29%	5%	7%	27%	50%
New York City	8%	15%	9%	20%	25%	51%
Oklahoma City	7%	9%	6%	11%	28%	49%
Omaha	5%	7%	4%	10%	28%	49%
Orlando	11%	16%	16%	26%	27%	50%
Philadelphia	9%	17%	4%	9%	27%	51%
Phoenix	5%	6%	15%	29%	26%	48%
Pittsburgh	5%	8%	2%	3%	25%	49%
Portland	2%	3%	6%	13%	25%	48%
Providence	4%	6%	6%	12%	28%	52%
Raleigh	13%	21%	4%	8%	29%	50%
Sacramento	5%	7%	15%	28%	30%	49%
Salt Lake City	1%	2%	7%	15%	23%	45%
San Antonio	9%	9%	32%	48%	27%	50%
San Diego	4%	5%	14%	35%	26%	49%
San Francisco	3%	7%	8%	24%	27%	48%
San Jose	2%	4%	6%	24%	23%	44%
Seattle	3%	6%	4%	10%	24%	48%
St. Louis	10%	15%	2%	4%	27%	49%
Tampa	10%	14%	12%	21%	27%	51%
Trenton	10%	18%	7%	14%	26%	50%
Washington DC	18%	23%	6%	12%	28%	50%
Sources: Lightcast U.S. Bureau of Labor Statistics Compl	ΓIA					



	Black or Afric	an Amorican	Hisnar	nic or Latino		Women
	Count	% of Occ.	Count	% of Occ.	Count	% of Occ.
CIOs and IT Directors	31,696	6%	39,520	8%	155,396	30%
Systems Analysts and Engineers	53,414	10%	42,271	8%	204,353	38%
Cybersecurity Analysts and Engineers	24,016	14%	15,074	9%	34,036	20%
Computer and Information Research Scientists	3,017	9%	2,331	7%	9,733	28%
Network Support Specialists	22,989	13%	19,162	10%	52,292	29%
IT Support Specialists	80,659	12%	77,823	11%	196,434	28%
Network Architects	17,188	10%	14,880	8%	24,080	14%
Database Administrators	7,334	8%	6,213	7%	33,643	38%
Database Architects	3,934	7%	3,604	7%	18,856	36%
Network and Systems Administrators	28,367	9%	31,110	10%	66,289	20%
Computer Programmers	8,520	5%	10,895	6%	39,203	23%
Software Developers and Engineers	62,069	4%	77,995	5%	310,509	21%
Software QC and Testers	12,271	6%	10,318	5%	60,446	30%
Web Developers	6,816	6%	9,370	9%	36,396	34%
Web and Digital Interface Designers	6,646	6%	10,923	10%	39,632	38%
IT Project Mgt., Emerging Tech, Other	56,434	14%	44,890	11%	123,749	30%
Data Scientists and Analysts	7,281	6%	7,702	7%	53,535	46%
Computer Hardware Engineers	4,937	6%	5,854	7%	12,449	15%
Computer, ATM, Office Machine Technicians	10,401	10%	16,078	16%	10,620	10%
Total	447,987	8%	446,012	8%	1,481,649	26%



	19-3	4 Age Range	35-54	4 Age Range	<u>55+</u>	Age Range
	Count	% of Occ.	Count	% of Occ.	Count	% of Occ.
CIOs and IT Directors	89,596	17%	323,765	62%	105,371	20%
Systems Analysts and Engineers	158,602	29%	270,267	50%	109,997	20%
Cybersecurity Analysts and Engineers	51,967	31%	88,114	52%	29,574	17%
Computer and Information Research Scientists	12,783	37%	14,817	43%	6,962	20%
Network Support Specialists	62,515	34%	88,071	48%	32,011	17%
IT Support Specialists	244,666	35%	329,140	47%	118,378	17%
Network Architects	44,618	25%	103,960	59%	26,832	15%
Database Administrators	21,909	25%	47,878	54%	18,501	21%
Database Architects	13,878	26%	28,502	54%	10,452	20%
Network and Systems Administrators	96,201	30%	176,027	54%	51,693	16%
Computer Programmers	49,074	29%	85,885	50%	35,949	21%
Software Developers and Engineers	548,443	36%	756,054	50%	204,328	14%
Software QC and Testers	70,053	34%	104,014	51%	30,209	15%
Web Developers	47,026	44%	48,970	46%	9,795	9%
Web and Digital Interface Designers	47,834	45%	47,721	45%	9,092	9%
IT Project Mgt., Emerging Tech, Other	122,758	30%	211,838	51%	76,076	18%
Data Scientists and Analysts	49,362	43%	50,064	43%	16,364	14%
Computer Hardware Engineers	23,385	29%	43,268	54%	14,085	17%
Computer, ATM, Office Machine Technicians	37,644	36%	46,011	44%	19,049	18%
Total	1,792,317	32%	2,864,365	51%	924,720	17%



	Black or African American		Hispai	nic or Latino		Women
	Count	% of Occ.	Count	% of Occ.	Count	% of Occ.
United States	478,883	8%	595,442	10%	2,065,777	34%
Alabama	8,459	16%	1,765	3%	19,035	35%
Alaska	242	4%	301	5%	1,833	33%
Arizona	6,598	5%	22,077	17%	41,628	33%
Arkansas	1,933	9%	857	4%	7,792	36%
California	39,733	4%	152,830	14%	370,614	34%
Colorado	5,619	3%	16,549	9%	59,407	33%
Connecticut	3,312	6%	4,795	8%	19,743	34%
Delaware	1,548	14%	611	5%	3,763	33%
District of Columbia	9,541	28%	2,306	7%	12,733	38%
Florida	33,358	10%	63,343	20%	111,409	35%
Coorgin	47,774	24%	11,397	6%	74,065	37%
Georgia		3%		9%		
Hawaii	359		917		3,695	35%
Idaho	372	1%	1,875	7%	7,841	30%
Illinois	14,970	7%	19,889	10%	69,907	35%
Indiana	4,719	7%	2,952	4%	24,366	34%
Iowa	1,012	3%	1,198	3%	13,760	36%
Kansas	1,920	5%	2,208	6%	13,211	33%
Kentucky	2,795	7%	1,182	3%	14,032	35%
Louisiana	5,820	19%	1,380	4%	10,459	34%
Maine	254	2%	329	2%	5,643	38%
Maryland	28,286	21%	6,764	5%	44,816	32%
Massachusetts	8,238	4%	12,904	6%	76,150	33%
Michigan	8,631	7%	5,113	4%	36,757	32%
Minnesota	4,747	4%	3,660	3%	41,011	35%
Mississippi	3,949	22%	508	3%	6,444	37%
Missouri	8,711	8%	3,716	4%	36,641	35%
Montana	109	1%	350	3%	3,723	35%
Nebraska		4%		5%		36%
	1,389	7%	1,585		11,575 9,717	
New Hampshire	2,088 608	1%	4,512	15% 4%		33% 33%
New Hampshire	008	170	1,683	470	14,372	33%
New Jersey	13,458	8%	17,556	10%	56,714	33%
New Mexico	662	3%	6,713	35%	6,463	33%
New York	30,352	9%	34,159	10%	127,039	36%
North Carolina	27,362	15%	9,406	5%	64,128	35%
North Dakota	224	3%	225	3%	3,114	36%
Ohio	10,788	7%	4,397	3%	51,488	33%
Oklahoma	1,995	7%	2,002	7%	10,092	33%
Oregon	2,329	2%	7,862	8%	28,683	29%
Pennsylvania	9,811	5%	6,896	4%	61,460	33%
Rhode Island	646	4%	1,490	8%	5,873	33%
South Carolina	8,873	16%	2,174	4%	19,907	37%
South Dakota	192	2%	250	3%	3,676	39%
Tennessee	8,571	12%	2,967	4%	25,860	36%
Texas	58,495	10%	107,326	18%	201,525	33%
Utah	1,144	1%	6,825	8%	26,025	29%
Vermont	162	1%	256	2%	3,651	31%
Virginia	35,018	14%	15,628	6%	85,375	34%
Washington	7,909	3%	15,650	6%	82,257	34%
_	7,909 429	3% 4%		2%		
West Virginia		4% 4%	224	2% 4%	3,585	31%
Wisconsin	3,310		3,655		31,612	36%
Wyoming	60	2%	225	6%	1,111	29%



APPENDIX TABLES – C TECH EMPLOYMENT OUTLOOK

Tech Job Category	<u>2023 Est.</u>	<u>2033 Proj</u>	Est. Annual Separations	Est. Annual Turnover <u>Rate</u>	Estimated Replacement Jobs Count	Est. Annual Replacement Jobs Count	Est. Annual Replacement <u>Rate</u>
CIOs and IT Directors	536,735	633,291	178,918	33%	726,257	36,313	7%
Systems Analysts and Engineers	553,439	623,134	193,651	35%	813,938	40,697	7%
Cybersecurity Analysts and Engineers	178,702	233,845	65,047	36%	232,243	11,612	7%
Computer and Information Research Scientists	35,927	43,796	11,216	31%	48,495	2,425	7%
Network Support Specialists	186,996	207,528	71,970	38%	292,458	14,623	8%
IT Support Specialists	711,668	789,187	324,090	46%	1,064,162	53,208	8%
Network Architects	179,877	194,906	68,062	38%	214,383	10,719	6%
Database Administrators	90,429	100,811	32,546	36%	116,811	5,841	7%
Database Architects	54,458	61,788	20,769	38%	70,301	3,515	7%
Network and Systems Administrators	330,784	356,860	120,362	36%	469,676	23,484	7%
Computer Programmers	173,409	170,985	68,403	40%	279,982	13,999	7%
Software Developers and Engineers	1,580,952	1,980,738	499,608	31%	1,968,108	98,405	7%
Software QC and Testers	212,900	257,451	84,938	40%	283,514	14,176	7%
Web Developers	111,450	137,557	38,168	34%	156,383	7,819	7%
Web and Digital Interface Designers	110,610	137,016	41,097	37%	172,098	8,605	8%
IT Project Mgt., Emerging Tech, Other	423,800	485,401	152,592	36%	585,032	29,252	7%
Data Scientists and Analysts	122,225	162,662	41,977	34%	149,621	7,481	7%
Computer Hardware Engineers	82,671	90,933	22,443	27%	101,715	5,086	6%
Computer, ATM, Office Machine Technicians	103,958	103,753	49,446	48%	237,787	11,889	11%
Total	5,780,988	6,771,641	2,085,304	36%	7,982,964	399,148	7%



APPENDIX TABLES – D TECH WAGES PERCENTILES

	10 th	25 th	50 th (median)	75 th	90 th	% Greater than Overall
	Percentile	<u>Percentile</u>	Percentile	<u>Percentile</u>	Percentile	Median Wage
United States	\$56,140	\$74,702	\$100,615	\$129,623	\$161,427	103%
Alabama	\$42,611	\$59,996	\$85,764	\$116,342	\$150,175	132%
Alaska	\$46,003	\$61,624	\$84,063	\$111,179	\$133,115	69%
Arizona	\$40,412	\$61,168	\$88,355	\$120,907	\$151,201	115%
Arkansas	\$36,887	\$47,148	\$71,525	\$100,160	\$133,604	103%
California	\$57,051	\$81,992	\$119,568	\$162,053	\$205,210	151%
Colorado	\$55,789	\$74,543	\$103,946	\$131,827	\$167,203	118%
Connecticut	\$53,254	\$74,746	\$99,809	\$128,803	\$159,860	101%
Delaware	\$55,921	\$75,822	\$103,329	\$128,680	\$164,495	130%
District of Columbia	\$71,840	\$87,931	\$122,889	\$149,517	\$170,625	51%
Florida	\$40,340	\$55,787	\$81,533	\$113,876	\$146,673	113%
Georgia	\$45,416	\$63,452	\$96,197	\$125,846	\$158,776	142%
Hawaii	\$47,656	\$63,692	\$86,864	\$110,087	\$137,411	84%
Idaho	\$35,141	\$48,243	\$70,490	\$103,430	\$133,884	89%
Illinois	\$44,126	\$61,311	\$90,986	\$123,913	\$156,594	105%
Indiana	\$39,811	\$54,495	\$77,140	\$101,316	\$130,971	95%
lowa	\$46,760	\$61,982	\$83,728	\$114,698	\$136,044	107%
Kansas	\$42,508	\$56,683	\$78,880	\$108,325	\$133,621	105%
Kentucky	\$39,159	\$51,098	\$71,339	\$98,346	\$126,033	90%
Louisiana	\$34,920	\$49,113	\$68,661	\$95,624	\$124,157	86%
Maine	\$42,845	\$59,247	\$79,878	\$107,104	\$135,657	92%
Maryland	\$56,129	\$77,424	\$109,357	\$144,121	\$176,188	123%
, Massachusetts	\$58,448	\$80,743	\$112,912	\$154,959	\$173,331	108%
Michigan	\$42,446	\$58,577	\$85,010	\$114,947	\$134,282	103%
Minnesota	\$50,256	\$66,867	\$93,196	\$122,768	\$155,058	98%
Mississippi	\$35,140	\$47,909	\$66,901	\$91,694	\$113,203	101%
Missouri	\$41,229	\$53,312	\$78,245	\$109,505	\$135,870	101%
Montana	\$37,612	\$52,569	\$72,873	\$85,531	\$114,849	90%
Nebraska	\$40,900	\$57,460	\$81,479	\$110,754	\$132,151	107%
Nevada	\$34,477	\$49,987	\$75,778	\$103,834	\$133,349	97%
New Hampshire	\$50,211	\$69,311	\$95,179	\$126,562	\$158,187	108%
New Jersey	\$56,359	\$78,358	\$113,345	\$153,035	\$175,875	132%
New Mexico	\$38,002	\$54,917	\$78,426	\$111,604	\$148,901	108%
New York	\$51,726	\$72,546	\$105,767	\$150,564	\$195,311	112%
North Carolina	\$46,102	\$66,816	\$98,640	\$127,346	\$152,401	151%
North Dakota	\$38,992	\$52,152	\$71,205	\$93,064	\$119,222	56%
Ohio	\$42,982	\$59,924	\$84,810	\$113,698	\$133,785	105%
Oklahoma	\$37,259	\$51,312	\$73,830	\$102,349	\$135,189	99%
Oregon	\$51,070	\$67,533	\$97,171	\$127,547	\$163,918	115%
Pennsylvania	\$42,210	\$59,215	\$86,082	\$115,617	\$145,056	100%
Rhode Island	\$50,404	\$71,143	\$94,860	\$124,599	\$160,434	99%
South Carolina	\$38,522	\$52,743	\$78,480	\$109,916	\$139,513	113%
South Dakota	\$38,288	\$55,400	\$65,877	\$97,517	\$127,050	74%
Tennessee	\$37,398	\$51,702	\$74,837	\$106,760	\$133,063	97%
Texas	\$42,437	\$59,835	\$89,833	\$125,010	\$159,033	123%
Utah	\$38,896	\$55,830	\$83,891	\$114,822	\$146,555	108%
Vermont	\$44,479	\$59,440	\$78,290	\$104,021	\$139,998	75%
Virginia	\$56,064	\$78,046	\$109,646	\$147,434	\$179,664	138%
Washington	\$61,897	\$90,432	\$129,955	\$159,093	\$189,239	157%
West Virginia	\$34,926	\$48,175	\$68,862	\$97,265	\$126,868	90%
Wisconsin	\$41,493	\$56,662	\$80,564	\$107,822	\$133,483	89%
Wyoming	\$37,959	\$48,362	\$67,175	\$88,440	\$105,562	59%



	10 th	25 th	50 th (median)	75 th	90 th	% Greater than Overall
	Percentile	Percentile	Percentile	Percentile	<u>Percentile</u>	Median Wage
United States	\$56,140	\$74,702	\$100,615	\$129,623	\$161,427	103%
		4	4	4		
Albuquerque	\$37,207	\$54,853	\$79,800	\$113,857	\$149,718	106%
Atlanta	\$48,808	\$70,306	\$104,354	\$136,078	\$165,592	142%
Austin	\$46,278	\$63,296	\$93,974	\$128,865	\$163,730	106%
Baltimore	\$58,061	\$78,157	\$109,772	\$143,555	\$180,015	125% 91%
Boise	\$35,886	\$49,238	\$73,140	\$106,670	\$137,593	91%
Boston	\$59,242	\$83,063	\$115,803	\$157,797	\$181,941	105%
Buffalo	\$44,791	\$57,777	\$80,228	\$110,244	\$137,669	84%
Charleston	\$43,425	\$61,078	\$85,642	\$116,093	\$142,017	114%
Charlotte	\$47,375	\$72,163	\$105,148	\$132,699	\$160,855	147%
Chicago	\$44,908	\$62,719	\$92,230	\$125,677	\$162,735	100%
Cincinnati	\$43,439	\$59,613	\$85,486	\$115,804	\$135,089	102%
Cleveland	\$43,256	\$61,204	\$86,944	\$113,834	\$134,998	101%
Colorado Springs	\$55,918	\$75,157	\$98,060	\$123,596	\$155,582	123%
Dallas	\$45,993	\$67,540	\$100,505	\$129,538	\$161,825	132%
Denver	\$56,248	\$76,253	\$100,303	\$134,859	\$168,374	112%
Deliver	Ş30,246	\$70,233	\$107,234	\$154,655	\$100,374	112/0
Des Moines	\$49,678	\$67,724	\$94,379	\$120,059	\$139,527	112%
Detroit	\$43,789	\$62,430	\$90,215	\$124,368	\$138,573	100%
Hartford	\$51,639	\$71,347	\$94,248	\$121,485	\$149,738	90%
Houston	\$39,729	\$59,543	\$89,197	\$127,098	\$166,180	112%
Huntsville	\$52,853	\$70,878	\$98,150	\$130,778	\$162,278	121%
Indianapolis	\$40,966	\$57,629	\$82,094	\$109,513	\$135,644	99%
Kansas City	\$43,787	\$57,104	\$82,445	\$113,320	\$140,063	92%
Las Vegas	\$31,021	\$50,836	\$77,532	\$102,745	\$131,603	106%
Los Angeles	\$45,859	\$68,837	\$101,645	\$143,735	\$176,798	119%
Memphis	\$36,635	\$48,412	\$71,321	\$101,357	\$134,339	85%
Miami	\$33,446	\$49,542	\$79,429	\$113,426	\$147,883	101%
Milwaukee	\$43,103	\$58,305	\$84,995	\$120,596	\$136,464	92%
Minneapolis	\$55,040	\$73,715	\$98,251	\$125,601	\$159,310	96%
Nashville	\$38,508	\$53,740	\$77,031	\$113,149	\$138,757	88%
New Orleans	\$33,376	\$49,882	\$74,988	\$102,028	\$135,157	94%
New York City	\$56,166	\$80,131	\$116,773	\$162,389	\$208,050	119%
Oklahoma City	\$38,647	\$52,666	\$75,638	\$102,664	\$135,557	94%
Omaha	\$43,645	\$61,138	\$84,106	\$114,701	\$134,313	98%
Orlando	\$43,234	\$59,753	\$87,114	\$118,921	\$147,801	132%
Philadelphia	\$48,267	\$67,127	\$96,374	\$127,713	\$162,502	105%
Phoenix	\$40,429	\$61,693	\$90,197	\$125,259	\$157,311	112%
Pittsburgh	\$41,715	\$59,137	\$84,274	\$116,621	\$136,511	92%
Portland	\$53,665	\$73,964	\$104,273	\$132,645	\$169,106	113%
Providence	\$48,008	\$68,974	\$93,123	\$123,968	\$156,705	102%
Raleigh	\$52,683	\$73,816	\$103,019	\$129,534	\$158,874	134%
Sacramento	\$57,159	\$78,392	\$99,959	\$133,355	\$164,773	104%
Salt Lake City	\$39,933	\$57,701	\$85,476	\$133,333	\$154,129	95%
San Antonio	\$43,350	\$59,553	\$87,251	\$117,730	\$144,446	126%
San Diego						
San Francisco	\$57,919 \$78,652	\$80,894 \$109,755	\$114,824 \$149,419	\$151,997 \$193,894	\$178,258 \$238,864	138% 138%
Suit Francisco	٧/٥,٠٥٧	7105,733	7143,413	7173,034	7230,004	130/0
San Jose	\$87,122	\$116,443	\$155,111	\$201,526	\$223,304	111%
Seattle	\$64,941	\$96,873	\$135,746	\$163,348	\$191,469	138%
St. Louis	\$43,664	\$58,103	\$83,545	\$114,637	\$140,854	97%
Tampa	\$42,797	\$59,793	\$83,468	\$117,547	\$142,892	111%
Trenton	\$55,826	\$76,375	\$111,136	\$132,578	\$166,950	101%
Washington DC	\$64,270	\$84,936	\$119,158	\$154,996	\$186,688	95%



APPENDIX TABLES – E INDUSTRY SECTORS

Prior year industry definition

, nor year industry definition	Tech Manufacturing	Telecom, Data and Internet Services	Software Products	IT Services and Custom Software Services	Total	Projected % change 2022
United States	1,104,743	1,461,941	596,343	2,931,016	6,094,043	3.2%
Alabama	7,732	11,596	3,795	31,217	54,340	2.4%
Alaska	124	3,402	96	1,891	5,514	1.4%
Arizona	34,641	30,283	9,489	52,783	127,197	3.2%
Arkansas	1,714	8,076	503	11,601	21,893	3.0%
California	305,915	258,682	112,403	422,456	1,099,457	3.0%
Colorado	23,814	44,937	19,520	94,137	182,408	3.9%
Connecticut	11,554	12,746	4,856	28,119	57,275	1.1%
Delaware	2,470	2,372	351	6,163	11,356	0.4%
District of Columbia	114	6,070	1,707	25,785	33,676	2.5%
Florida	45,738	83,238	26,027	164,802	319,805	3.7%
Georgia	10,095	64,161	23,789	101,544	199,589	3.6%
Hawaii	235	4,221	334	5,895	10,686	2.0%
Idaho	11,017	3,706	1,327	10,441	26,491	3.6%
Illinois	29,300	49,061	13,958	110,292	202,611	2.3%
Indiana	12,816	14,471	2,582	41,632	71,500	3.4%
lowa	12,071	10,055	1,905	14,025	38,056	1.9%
Kansas	7,703	10,749	2,521	18,733	39,706	2.8%
Kentucky	3,612	13,824	1,686	20,568	39,690	2.3%
Louisiana	2,417	10,746	1,288	16,555	31,006	4.4%
Maine	2,138	3,719	645	8,279	14,782	4.2%
Mandand	21 542	17.750	C FFC	03.005	127.042	2 50/
Maryland	21,542	17,750	6,556	92,095	137,943	2.5%
Massachusetts	54,763	36,992	38,494	101,370	231,620	2.3%
Michigan	20,891	27,618	7,747	58,925	115,180	2.0%
Minnesota Mississippi	43,087 2,167	18,415 6,353	9,583 519	46,535 8,611	117,620 17,649	1.2% 5.0%
A 4:	12.001	20.244	F 27F	5 A 7 A 7	102.240	2.20/
Missouri	12,981	30,344	5,275	54,747	103,349	3.3%
Montana	1,274	2,815	492	6,067	10,647	3.8%
Nebraska	3,725	6,956	5,794	15,656	32,131	3.3%
Nevada	3,917	9,118	2,712	13,938	29,685	5.2%
New Hampshire	15,853	5,502	3,988	18,365	43,709	2.8%
New Jersey	25,767	41,206	10,339	95,066	172,378	2.6%
New Mexico	5,103	5,111	612	8,479	19,304	1.1%
New York	54,056	115,366	33,810	147,088	350,320	3.1%
North Carolina	30,802	39,896	25,503	86,568	182,770	3.5%
North Dakota	1,287	2,348	1,328	3,639	8,601	2.0%
Ohio	21,048	39,126	10,037	84,124	154,335	2.6%
Oklahoma	3,451	11,854	990	14,212	30,506	2.3%
Oregon	43,393	14,515	13,845	25,486	97,238	3.0%
Pennsylvania	29,368	46,370	15,712	92,939	184,389	3.2%
Rhode Island	3,988	2,620	804	10,155	17,567	3.4%
South Carolina	6.004	16 602	4.400	26 202	E4 200	E 00/
South Carolina South Dakota	6,904 2,220	16,603 2,980	4,490 147	26,293 4,186	54,290 9,532	5.0% 4.5%
Tennessee	6,599	19,958	10,185	35,893	72,635	5.6%
Texas Utah	98,444 13,884	141,293 16,433	34,898 16,773	327,313 41,266	601,947 88,356	4.7% 5.1%
Varmont	A 1E7	1 500	963	F 202	11.002	1 10/
Vermont	4,157	1,590	863	5,292	11,902	1.1%
Virginia	12,228	40,886	8,248	190,906	252,268	2.0%
Washington	18,015	70,523	82,419	85,696	256,652	4.3%
West Virginia	832	4,232	247	6,212	11,522	4.2%
Wisconsin	17,456	19,335	15,067	35,224	87,082	1.9%
Wyoming	320	1,719	84	1,753	3,876	6.3%



	Tech	Telecom, Data and	Software	IT Services and Custom		Projected % change
	<u>Manufacturing</u>	Internet Services	<u>Products</u>	Software Services	<u>Total</u>	2022
United States	1,104,743	1,461,941	596,343	2,931,016	6,094,043	3.2%
Albuquerque	4,620	3,444	311	5,212	13,587	-0.1%
Atlanta	8,420	49,808	20,548	74,592	153,368	2.5%
Austin	30,378	26,018	10,634	75,436	142,467	5.7%
Baltimore	14,870	6,262	2,993	36,747	60,871	2.1%
Boise	9,501	1,314	748	6,204	17,767	1.8%
Boston	47,606	30,230	36,265	87,733	201,833	1.6%
Buffalo	4,444	2,817	825	7,026	15,112	1.8%
Charleston	428	3,253	1,592	6,687	11,959	4.9%
Charlotte	2,626	14,256	6,012	25,217	48,111	3.6%
Chicago	23,546	37,438	9,080	82,308	152,371	0.8%
Cincinnati	3,656	6,531	2,592	15,707	28,486	2.0%
Cleveland	4,991	6,603	1,797	17,297	30,688	2.4%
Colorado Springs	3,081	2,036	1,706	11,536	18,359	1.9%
Dallas	44,970	54,346	12,710	121,714	233,740	3.9%
Denver	6,347	33,051	12,263	59,075	110,736	4.3%
Des Moines	911	3,312	633	6,227	11,083	1.5%
Detroit	5,546	11,419	3,617	36,145	56,727	-0.8%
Hartford	3,212	2,804	1,121	11,421	18,558	1.4%
Houston	13,473	17,725	4,109	52,820	88,126	2.2%
Huntsville	4,337	1,219	363	12,533	18,452	1.4%
Indianapolis	2 961	C 169	1 252	24.104	35,785	3.3%
Kansas City	3,861 11,147	6,468 10,129	1,352 1,950	24,104 29,790	53,785	2.6%
Las Vegas	929	6,696	1,771	9,731	19,128	5.0%
Los Angeles	73,176	54,712	21,782	100,670	250,341	0.8%
Memphis	1,135	2,330	922	6,827	11,215	3.1%
N 4::	6.604	24.626	7.007	40.021	07.150	2.00/
Miami	6,604	24,626	7,007	48,921	87,158	2.8%
Milwaukee	7,985	7,512	1,430	11,513	28,441	-0.8%
Minneapolis	35,861	11,464	7,592	37,414	92,331	0.3%
Nashville	2,115	7,706	5,228	15,928	30,976	4.8%
New Orleans	1,099	3,080	481	6,340	10,999	4.8%
New York City	32,775	121,120	33,462	170,356	357,713	2.8%
Oklahoma City	1,292	3,669	450	6,481	11,891	0.8%
Omaha	831	3,828	3,649	8,899	17,207	1.9%
Orlando	4,362	12,280	4,321	20,661	41,624	2.1%
Philadelphia	17,813	21,146	8,255	42,733	89,947	0.4%
Phoenix	30,775	25,287	6,560	42,062	104,684	2.7%
Pittsburgh	8,994	7,447	3,038	18,339	37,818	1.7%
Portland	42,670	10,952	10,595	22,676	86,893	2.7%
Providence	5,608	3,580	1,190	9,550	19,928	2.4%
Raleigh	7,195	10,437	11,936	25,237	54,805	2.5%
Sacramento	4,434	4,515	1,487	12,701	23,137	0.0%
Salt Lake City	7,758	7,744	8,168	23,261	46,931	4.7%
San Antonio	2,634	11,735	901	13,373	28,643	3.5%
San Diego	31,400	11,129	5,788	27,858	76,175	1.9%
San Francisco	37,015	93,228	34,904	114,210	279,357	4.7%
San Jose	130,450	66,419	34,728	98,435	330,032	2.7%
Seattle	11,809	60,658	76,528	70,964	219,959	3.9%
St. Louis	3,623	15,598	2,963	22,335	44,519	1.1%
Tampa	10,694	15,210	4,807	25,459	56,169	2.0%
	10,001	10,210	.,	20, 100	00,100	2.070
Trenton	875	1,590	816	4,540	7,821	0.2%





CLASSIFICATION SYSTEMS AND CHANGES OVER TIME

CompTIA's State of the Tech Workforce (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. NAICS codes are revised periodically to reflect the emergence of new industry sectors or sub-sectors. Additionally, CompTIA revises its definition of technology industry periodically to best meet the needs of our audiences.

Additionally, government labor market sources do occasionally enact backward revisions to the data, which may affect year-over-year comparisons, especially with percent changes. The wage data is presented as current dollars, meaning the figures are for the given year and not adjusted for inflation.

NET TECH EMPLOYMENT

The tech workforce consists of two primary components. Net tech employment is a single metric that encompasses both components, making it easier to describe the tech workforce. The foundation is the set of technology occupation professionals working in technical positions, such as IT support, network engineering, software development and related roles. Many of these professionals work for technology companies (42%), but many others are employed by organizations across every industry sector or government entity in the U.S. economy (58%).

The second component of the discussion consists of the business professionals employed by technology companies. These professionals play an important role in supporting the development and delivery of the technology products and services used throughout the economy. Thirty-nine percent of the net tech employment total consists of tech industry business professionals. See page 5 of this report for more details on the concept of Net Tech Employment.

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

TECH OCCUPATION DEFINITION

For occupation-level analysis, this report utilizes the Standard Occupational Classification (SOC) System, which is a standard used by federal agencies to classify workers into occupational categories. See following page.

WORKFORCE CHARACTERISTICS AND DIVERSITY INDEX

The U.S. Bureau of Labor Statistics (BLS) tracks labor market composition across several demographic and firmographic characteristics. By race and ethnicity, the BLS segments data by seven top-level categorizations. Described here: https://www.bls.gov/opub/reports/race-and-ethnicity/2019/home.htm. To measure overall race and ethnicity characteristics within the tech workforce, this report uses a metric called Simpson's Diversity Index. This index weights two key facets of race and ethnicity within the workforce – richness and evenness (or think of it as depth and breadth) and reflects it in a single metric. See page 9 of this report for more details.

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



NAICS and SOCs are standard taxonomies developed by and used across government statistical programs. NAICS and SOCs are updated on regular cycles, but because of the pace of change in technology, government taxonomies do tend to lag the market. Additionally, the blurring of lines in technology means there are more gray areas in classification systems. See government sites for more details on NAICS and SOCs.

INDUSTRY CLASSIFICATION BY NAICS (North American Industry Classification System)

IT/Tech Services

423430, 541511, 541512, 541513, 541519, 611420, 811211, 811212, 811213, 811219

Telecommunications, Internet Services and Data Hosting

517311, 517312, 517410, 517911, 517919, 518210, 519130

Software

511210

Manufacturing: Computer, Peripheral and Communications Equipment, Semiconductors and Electronic Components

333242, 334111, 334112, 334118, 334210, 334220, 334290, 334310, 334412, 334413, 334416, 334417, 334418, 334419, 334510, 334511, 334512, 334513, 334514, 334515, 334516, 334517, 334519, 334514

OCCUPATION CLASSIFICATION BY SOC (Standard Occupational Classification)

Information Technology (IT) Occupations

11-3021, 15-1211, 15-1212, 15-1221, 15-1231, 15-1232, 15-1241, 15-1242, 15-1243, 15-1244, 15-1251, 15-1252, 15-1253, 15-1254, 15-1255, 15-1299, 15-2051, 17-2061, 49-2011





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