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State of the Decomposition of the Nationwide State Metro Area

Tech Hiring Trends | Wages | Workforce Characteristics

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STATE OF THE TECH WORKFORCE | CYBERSTATES 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? Is the goal to capture all possible knowledge workers, or a more narrowly defined technology subset? Is the goal to capture all possible knowledge workers, 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.

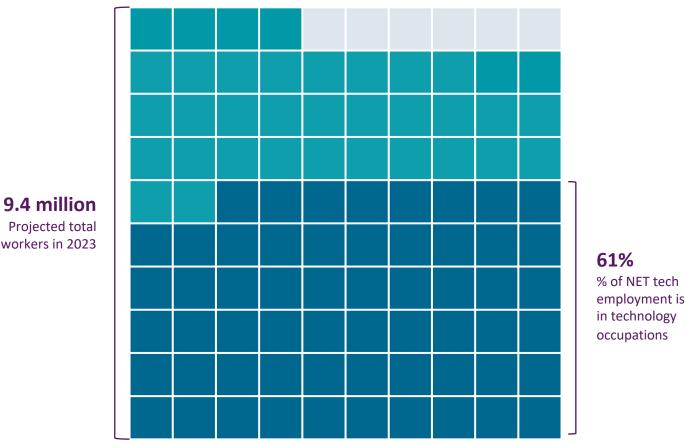


N = Technology professionals employed across the economy, including in the tech sector (e.g. software developers, network architects, database admins, etc.)



N = Tech sector employment, less technology professionals

(e.g. sales, marketing, finance, HR, etc.)

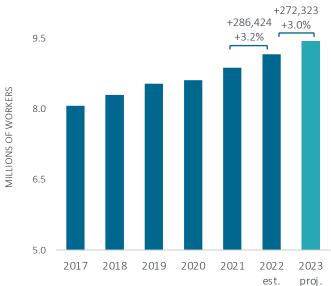


= 100,000 workers Source: Lightcast | U.S. Bureau of Labor Statistics | CompTIA



KEY POINTS

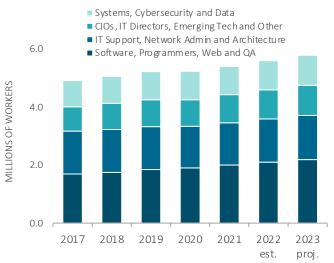
- →I The 2022 estimates and 2023 projections are presented with the most up-to-date data at the time of reporting. As with any labor market data source there is a lag effect and recent developments during late 2022 and early 2023 will likely not be fully reflected in the data.
- →I Net tech employment 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.
- → Employment in the tech sector has grown since the pandemic and could reach its projected target of 9,428,713, in 2023 which translates to 272,323 net new workers added or +3.0% growth.
- → The tech sector and the broader base of technology workers employed across the economy experienced several bumps during the pandemic, but generally held up well. In some cases, demand for technology services and infrastructure to support new remote work models, ecommerce, or revamped supply chains exploded, stretching the capacity of solution providers and MSPs.
- → 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.
- → Within the tech occupation category, software, programmers, web and QA related occupations accounted for 59.5% of new jobs created between 2017 and 2022.
- → Top projected growth occupations for 2023:
 - 5.5% Data Scientists and Data Analysts
 - 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



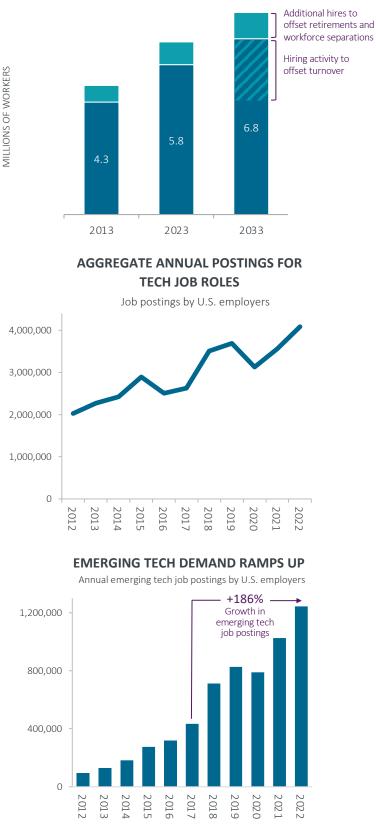
NET TECH EMPLOYMENT TRENDING

KEY POINTS

- → 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.
- →I 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
 - 21% 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

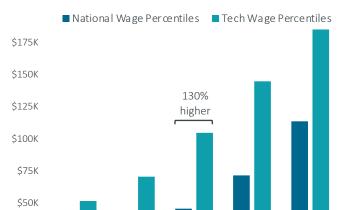
Workforce need = annual replacement rate + growth rate





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.
- → 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 \$104,406 in 2022, 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.
- → 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.
- → 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.



\$25K

ŚOK

10th per-

centile

25th per-

centile

ANNUAL WAGE COMPARISON ACROSS OCCUPATIONS

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

50th

(median)

75th per-

centile

90th per-

centile





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 <u>here</u>:
 - American Indian and Alaska Native
- Hispanic or Latino

- Asian
- Black or African American
- 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.

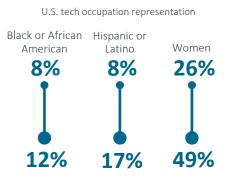
DIVERSITY INDEX

- → 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.
- → 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



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

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



U.S. NET TECH EMPLOYMENT

- \rightarrow I 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.
- \rightarrow 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.
- \rightarrow I 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.
- → 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%.
- \rightarrow I 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.
- \rightarrow 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> 20	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>20</u>	23 proj.	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

	<u>2022 est.</u>	<u>2023 proj.</u>	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



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%
 - → Virginia: 8.7%
 - → Massachusetts: 8.4%
 - →I Colorado: 8.3%
 - → New Hampshire: 7.9%
 - → Maryland: 7.9%
 - → California: 7.7%
 - → Utah: 7.2%
 - → 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%



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.
- →I 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

- → 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



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 far-reaching set of cities across the country.

METRO AREA TECH BUSINESS ESTABLISHMENTS

- → A large, dynamic base of business establishments, also referred to as company locations, is another measure of a healthy tech sector. The New York City metro area is home to 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.
- → 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%



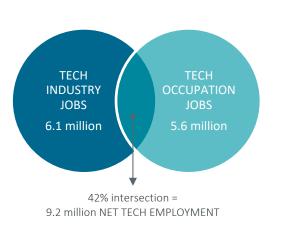
NATIONAL SNAPSHOT

United States

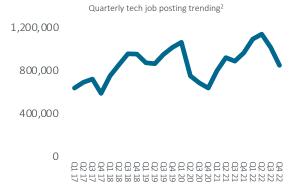
STATE OF TECHNOLOGY SUMMARY

- 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

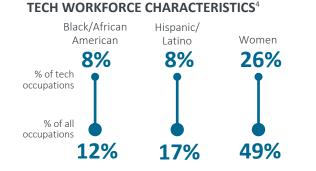
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



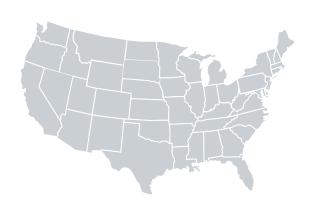
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

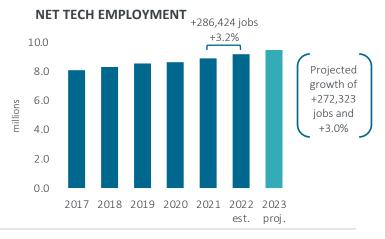


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



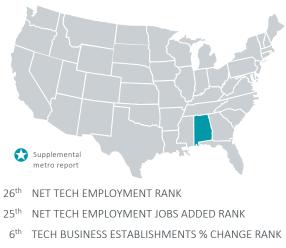
CompTIA.

STATE SNAPSHOTS

Alabama

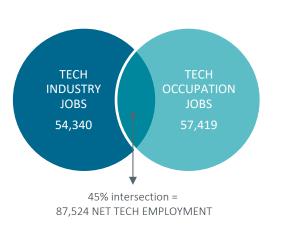
STATE OF TECHNOLOGY SUMMARY

- 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



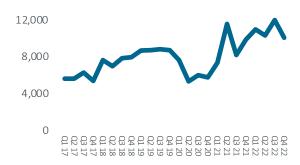
3rd DIVERSITY INDEX QUARTILE [1st = highest | see footnote]

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

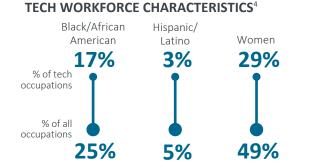


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

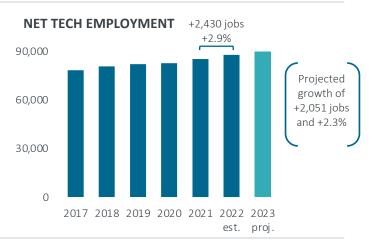
Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

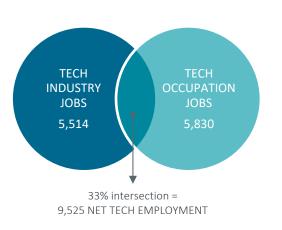
³Projected growth rate for 2023



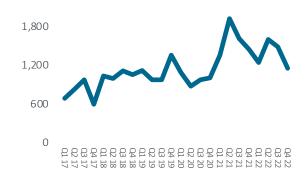
STATE OF TECHNOLOGY SUMMARY

- 9,525 NET TECH EMPLOYMENT¹
- 2.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$1.7b ECONOMIC IMPACT [estimated direct impact of tech sector]
- ECONOMIC IMPACT AS A % OF OVERALL 3.1%
- 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
- 51st NET TECH EMPLOYMENT JOBS ADDED RANK
- 41st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = highest | see footnote]

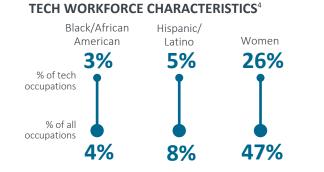
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

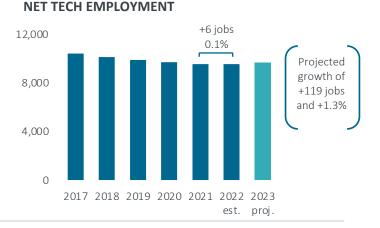


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





2023 %

LEADING TECH OCCUPATIONS

	2022	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

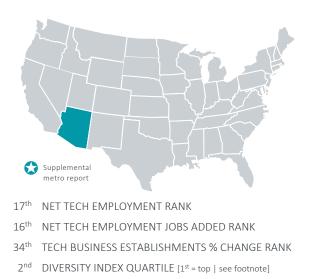


CompTIA

Arizona

STATE OF TECHNOLOGY SUMMARY

- 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



+5,077 jobs

+2.6%

Projected

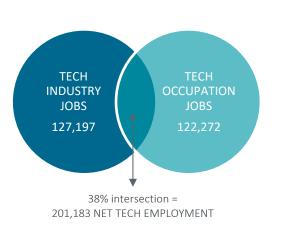
growth of

+6,677 jobs

and +3.3%

2023 %

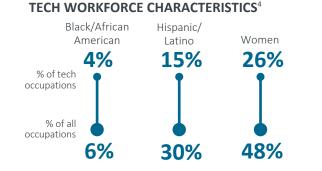
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



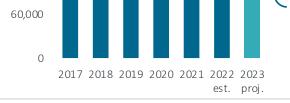
27,000 EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

180,000

120,000

	2022	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%

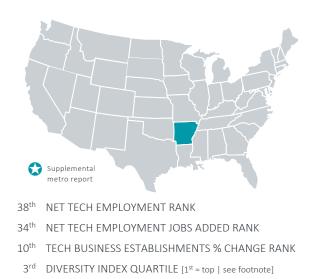
³Projected growth rate for 2023



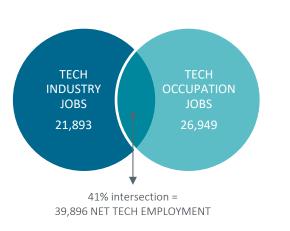
Arkansas

STATE OF TECHNOLOGY SUMMARY

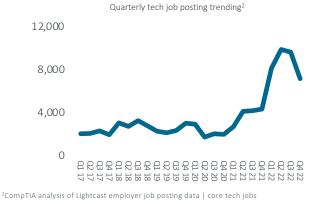
- 39,896 NET TECH EMPLOYMENT¹
- 3.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$4.3b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 3.0% ECONOMIC IMPACT AS A % OF OVERALL
- 4,771 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 34,636 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 31.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

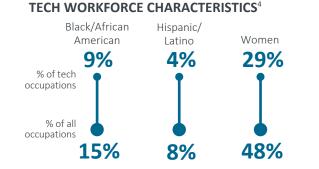


Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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

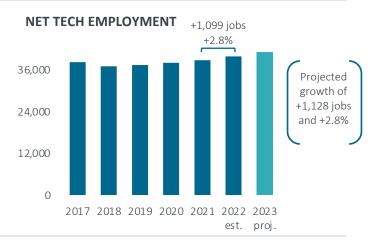








⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

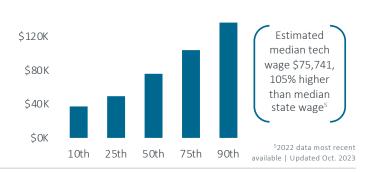


2023 %

LEADING TECH OCCUPATIONS

	2022	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

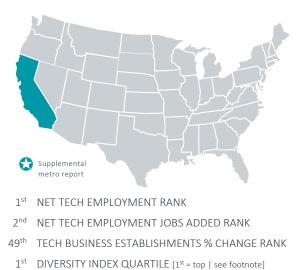


TECH OCCUPATION WAGES [by percentile]

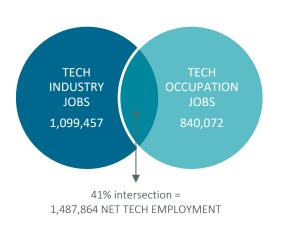
California

STATE OF TECHNOLOGY SUMMARY

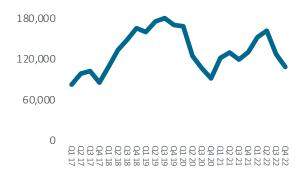
1,487,864	NET TECH EMPLOYMENT ¹
7.7%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$535.9b	ECONOMIC IMPACT [estimated direct impact of tech sector]
16.7%	ECONOMIC IMPACT AS A % OF OVERALL
55,868	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
547,874	EMPLOYER JOB POSTINGS [2022 total for tech occupations]
34.0%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



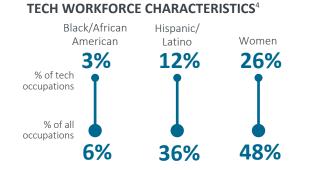
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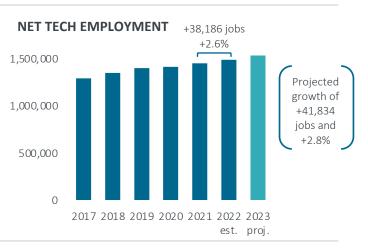
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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

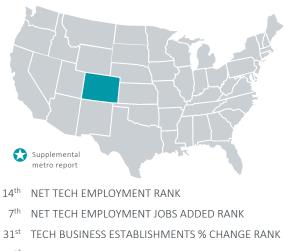


CompTIA.

Colorado

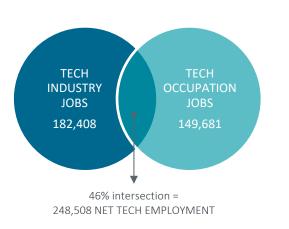
STATE OF TECHNOLOGY SUMMARY

248,508	NET TECH EMPLOYMENT ¹
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

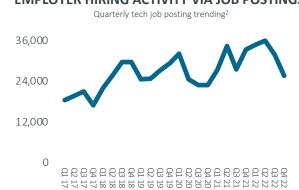


3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

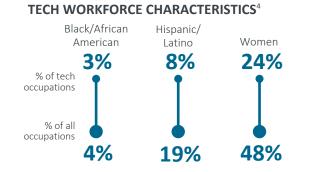
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



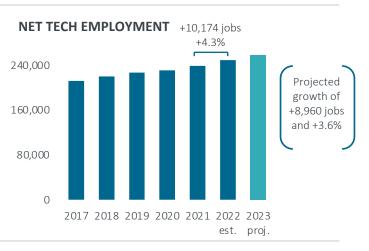
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023

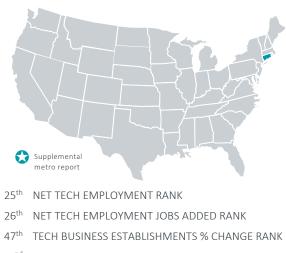


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Connecticut

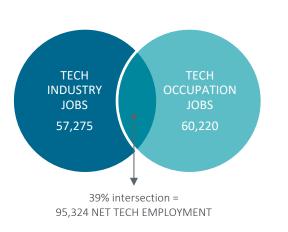
STATE OF TECHNOLOGY SUMMARY

- 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

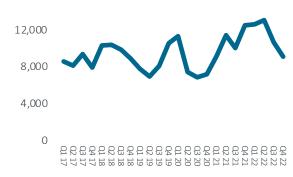


2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

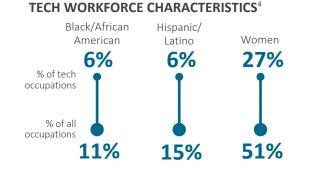
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



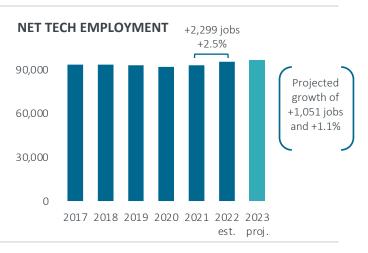
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

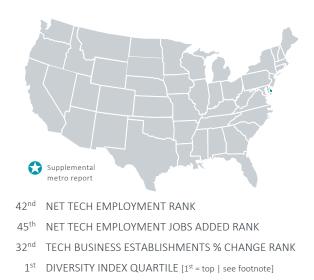
³Projected growth rate for 2023



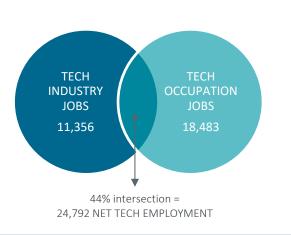
Delaware

STATE OF TECHNOLOGY SUMMARY

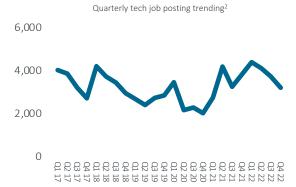
- 24,792 NET TECH EMPLOYMENT¹
- 5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$3.7b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 4.9% ECONOMIC IMPACT AS A % OF OVERALL
- 3,207 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 15,364 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 34.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



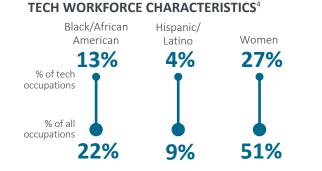
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



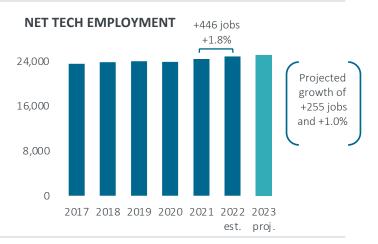
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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

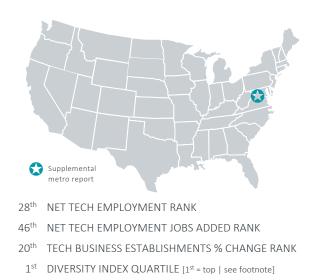


CompTIA

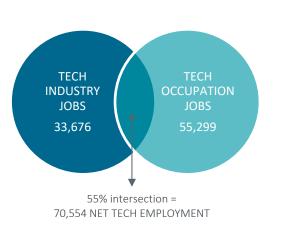
District of Columbia

STATE OF TECHNOLOGY SUMMARY

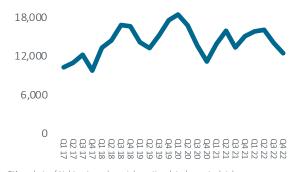
- 70,554 NET TECH EMPLOYMENT¹
- 9.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$9.0b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 5.9% ECONOMIC IMPACT AS A % OF OVERALL
- 4,732 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 58,288 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 23.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



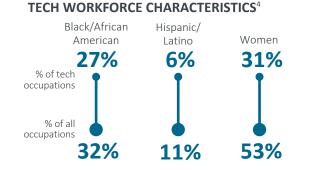
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



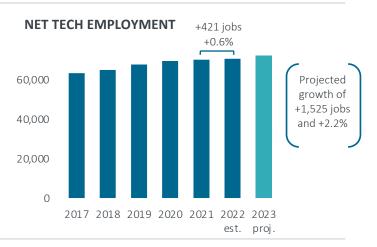
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

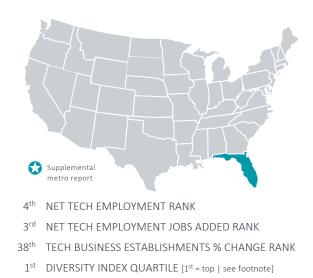
³Projected growth rate for 2023



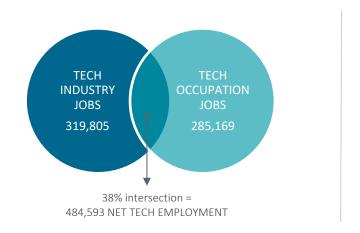
CompTIA

STATE OF TECHNOLOGY SUMMARY

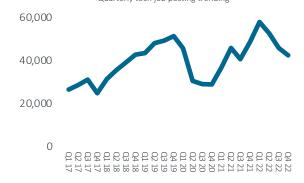
484,593	NET TECH EMPLOYMENT ¹
4.9%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$79.9b	ECONOMIC IMPACT [estimated direct impact of tech sector]
6.4%	ECONOMIC IMPACT AS A % OF OVERALL
38,796	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
198,199	EMPLOYER JOB POSTINGS [2022 total for tech occupations]
24.0%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



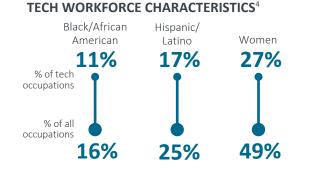
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



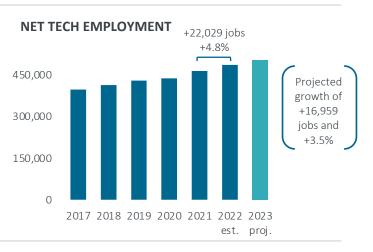
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
99,887	5.4%
52,180	2.4%
39,232	2.7%
37,266	4.3%
14,002	4.8%
13,823	4.6%
	99,887 52,180 39,232 37,266 14,002

³Projected growth rate for 2023

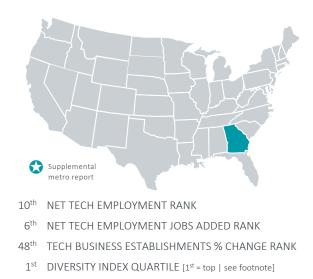


CompTIA.

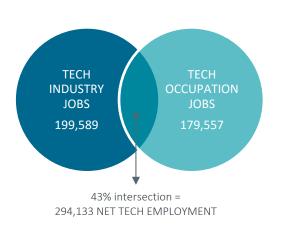
Georgia

STATE OF TECHNOLOGY SUMMARY

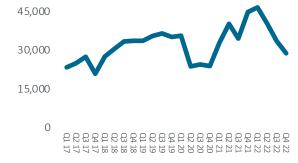
294,133	NET TECH EMPLOYMENT ¹
6.0%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$59.5b	ECONOMIC IMPACT [estimated direct impact of tech sector]
8.9%	ECONOMIC IMPACT AS A % OF OVERALL
17,529	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
148,829	EMPLOYER JOB POSTINGS [2022 total for tech occupations]
30.9%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



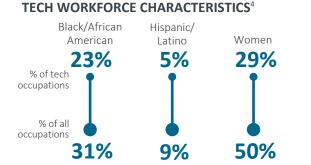
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



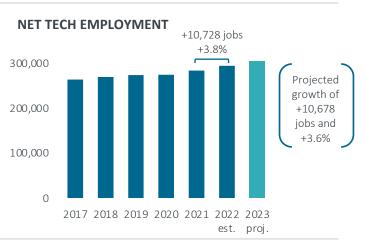
²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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







2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
66,028	5.2%
26,289	3.1%
22,468	2.9%
21,872	4.2%
15,406	3.5%
11,160	4.4%
	66,028 26,289 22,468 21,872 15,406

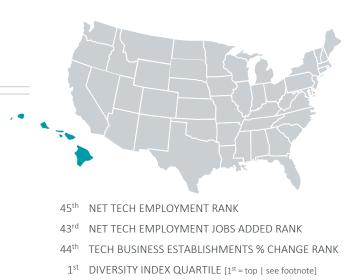
³Projected growth rate for 2023



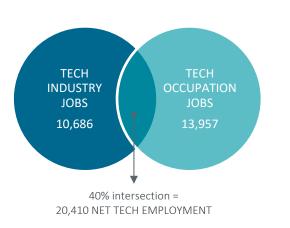
CompTIA.

STATE OF TECHNOLOGY SUMMARY

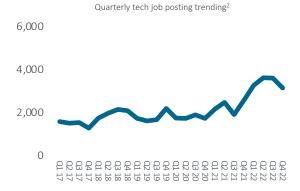
- 20,410 NET TECH EMPLOYMENT¹
- 3.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$3.1b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 3.5% ECONOMIC IMPACT AS A % OF OVERALL
- 2,159 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 13,578 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 23.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



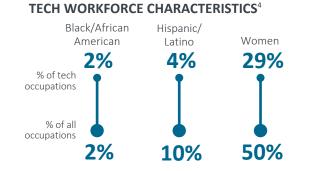
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



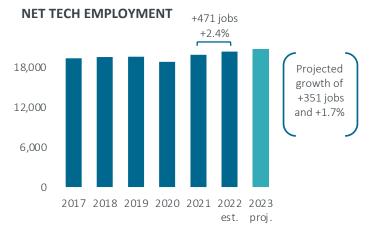
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

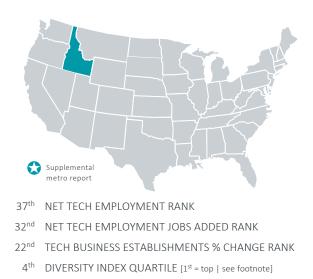
	2022	Change ³
Software, Programmers, Web and QA	3,253	3.3%
Cybersecurity and Systems Engineers	2,495	1.5%
IT Support Specialist and Repair Technicians	2,440	0.8%
Network Engineers, Architects and Support	2,241	0.8%
Emerging Tech, IT Project Mgt. and Other	1,856	2.2%
Database, Data Science, Analytics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

³Projected growth rate for 2023

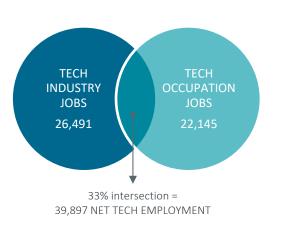


STATE OF TECHNOLOGY SUMMARY

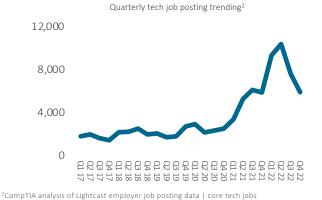
- 39,897 NET TECH EMPLOYMENT¹4.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
 - \$6.3b ECONOMIC IMPACT [estimated direct impact of tech sector]
 - 6.7% ECONOMIC IMPACT AS A % OF OVERALL
- 4,524 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 33,070 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 26.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



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

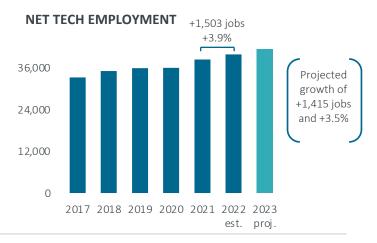


comprise analysis of Eighteast employer job posting data | core tech jobs

TECH WORKFORCE CHARACTERISTICS⁴

Black/African Hispanic/ American Hispanic/ Latino Women **1% 6% 26%** % of tech occupations % of all occupations **2% 14% 48%**

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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

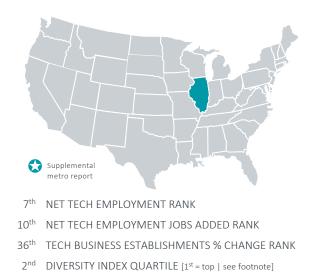
³Projected growth rate for 2023



Illinois

STATE OF TECHNOLOGY SUMMARY

325,685	NET TECH EMPLOYMENT ¹
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



+8,350 jobs +2.6%

est. proj.

Projected

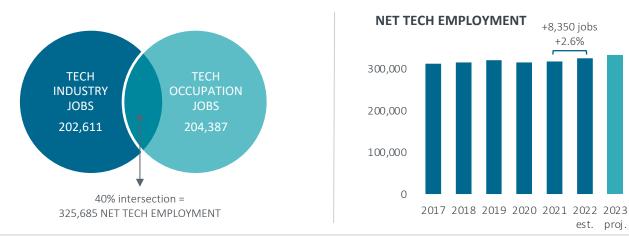
growth of

+6,468 jobs

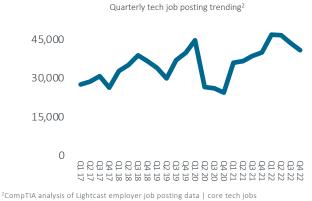
and +2.0%

2023 %

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



TECH WORKFORCE CHARACTERISTICS⁴ Black/African Hispanic/ American Women Latino 27% 7% 7% % of tech occupations % of all occupations 12% 49% 16%

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

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	73,393	3.5%
Cybersecurity and Systems Engineers	30,792	1.9%
Network Engineers, Architects and Support	30,144	0.8%
IT Support Specialist and Repair Technicians	28,717	1.5%
Database, Data Science, Analytics and CS	11,936	2.5%
Emerging Tech, IT Project Mgt. and Other	7,992	2.9%

³Projected growth rate for 2023

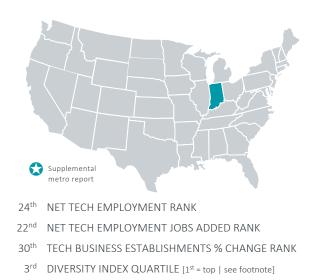


CompTIA

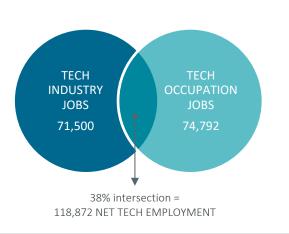
Indiana

STATE OF TECHNOLOGY SUMMARY

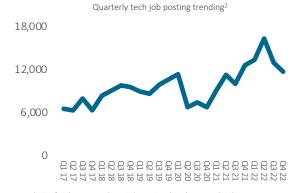
- 118,872 NET TECH EMPLOYMENT¹
- 3.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$15.5b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 4.0% ECONOMIC IMPACT AS A % OF OVERALL
- 9,299 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 54,198 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 28.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



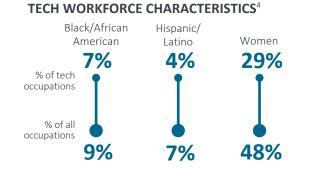
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



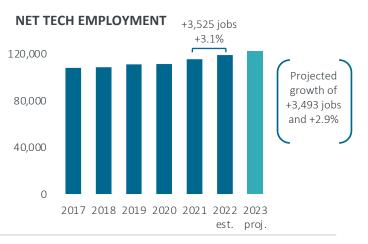
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

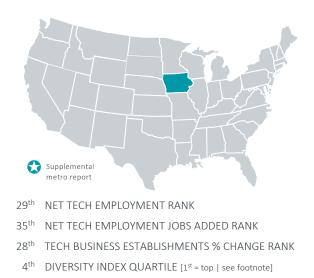
	2022	Change ³
Software, Programmers, Web and QA	21,511	4.6%
IT Support Specialist and Repair Technicians	14,522	1.9%
Network Engineers, Architects and Support	12,515	1.6%
Cybersecurity and Systems Engineers	11,215	2.9%
Database, Data Science, Analytics and CS	4,184	3.9%
Emerging Tech, IT Project Mgt.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

³Projected growth rate for 2023



STATE OF TECHNOLOGY SUMMARY

- 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



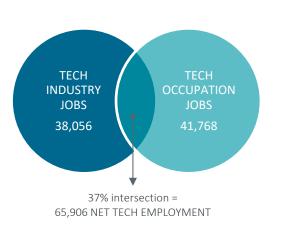
+1,073 jobs +1.7%

Projected

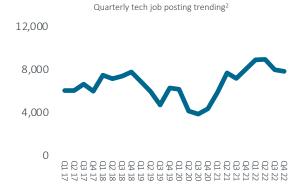
growth of

2023 %

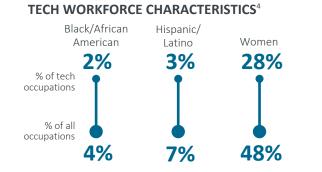
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

40,000 20,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

60,000

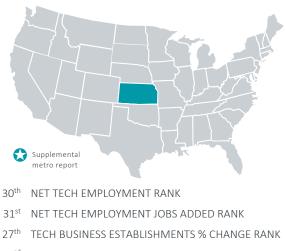
	2022	Change ³
Software, Programmers, Web and QA	15,373	3.4%
Cybersecurity and Systems Engineers	6,528	2.7%
IT Support Specialist and Repair Technicians	6,070	1.7%
Network Engineers, Architects and Support	5,877	1.3%
Database, Data Science, Analytics and CS	2,476	3.8%
Emerging Tech, IT Project Mgt. and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

³Projected growth rate for 2023



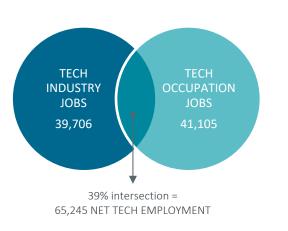
STATE OF TECHNOLOGY SUMMARY

- 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



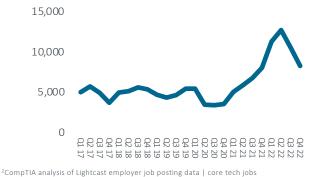
3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

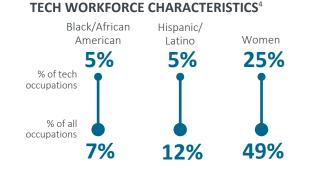




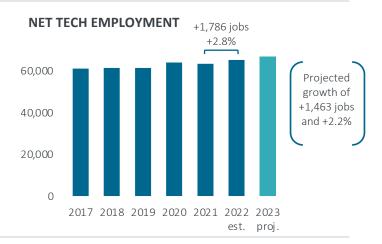
Quarterly tech job posting trending²



omprix analysis of Eighteast employer job posting data | core teen jobs



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

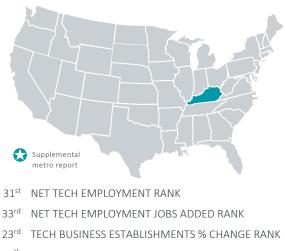
³Projected growth rate for 2023



Kentucky

STATE OF TECHNOLOGY SUMMARY

- 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

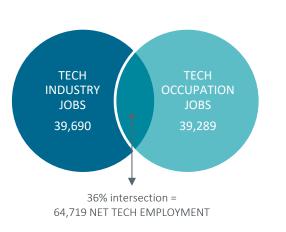


4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+1,317 jobs

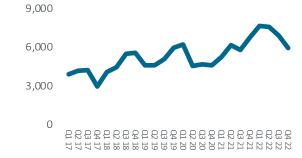
2023 %

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

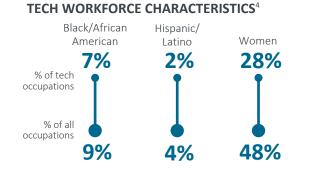


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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



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



60,000 40,000 20,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

2022	Change ³
10,849	4.3%
8,242	1.2%
6,573	1.4%
5,048	2.8%
2,821	3.4%
2,750	2.5%
	10,849 8,242 6,573 5,048 2,821

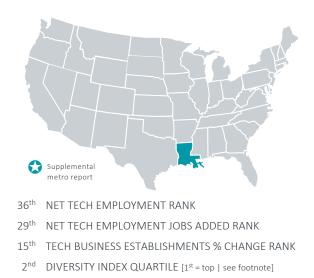
³Projected growth rate for 2023



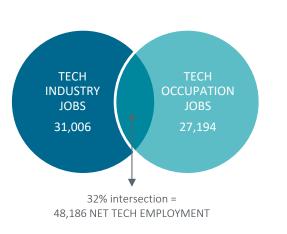
Louisiana

STATE OF TECHNOLOGY SUMMARY

- 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

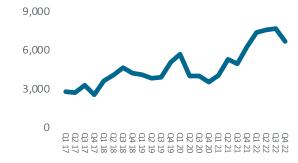


Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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

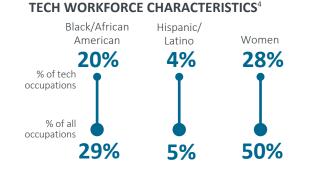




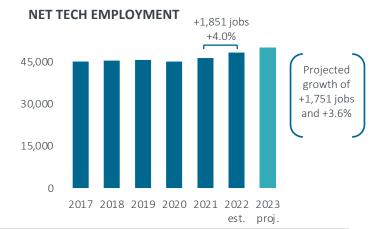
Quarterly tech job posting trending²



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



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

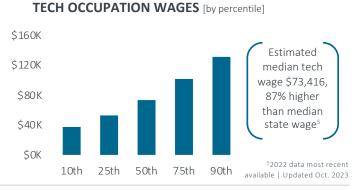


LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



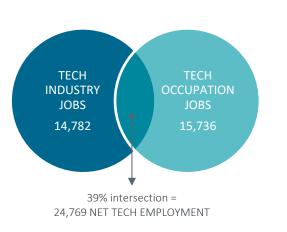
STATE OF TECHNOLOGY SUMMARY

- 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

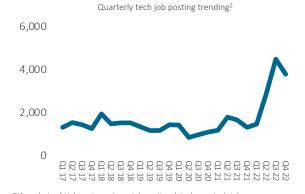


- 50th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

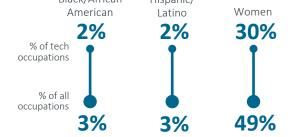


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

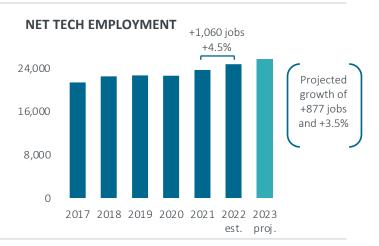


²CompTIA analysis of Lightcast employer job posting data | core tech jobs





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

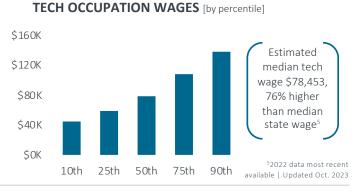


2023 %

LEADING TECH OCCUPATIONS

	2022	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%

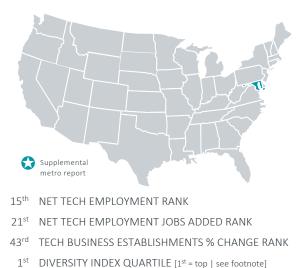
³Projected growth rate for 2023



Maryland

STATE OF TECHNOLOGY SUMMARY

- 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



+3,610 jobs +1.7%

est. proj.

Projected

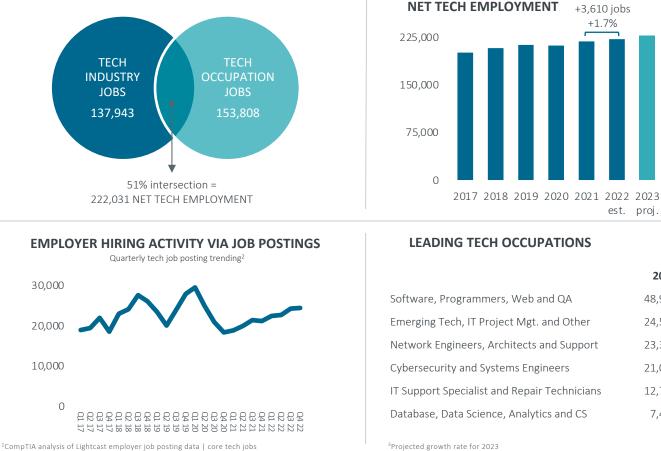
growth of

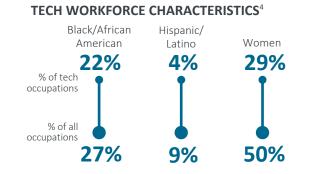
+5,109 jobs

and +2.3%

2023 %

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





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

CompTIA

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LEADING TECH OCCUPATIONS

	2022	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%

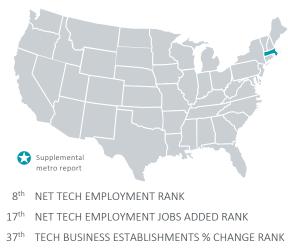
³Projected growth rate for 2023



Massachusetts

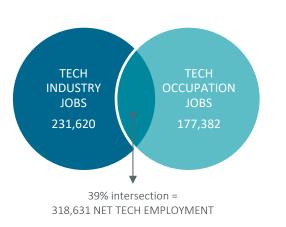
STATE OF TECHNOLOGY SUMMARY

318,631	NET TECH EMPLOYMENT ¹
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

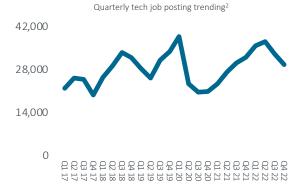


2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

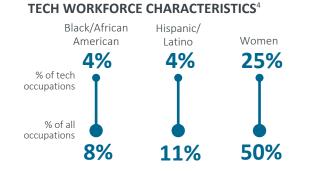
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



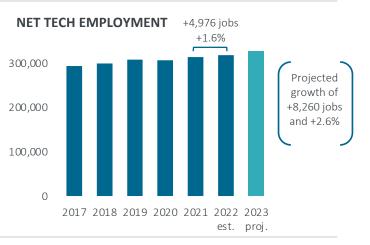
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

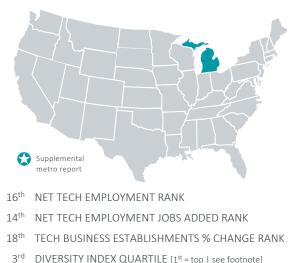
³Projected growth rate for 2023



Michigan

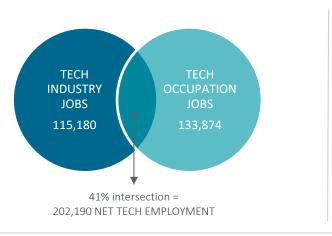
STATE OF TECHNOLOGY SUMMARY

- 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



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

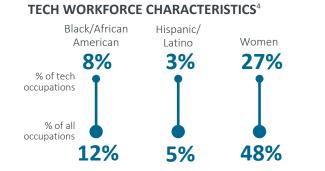
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



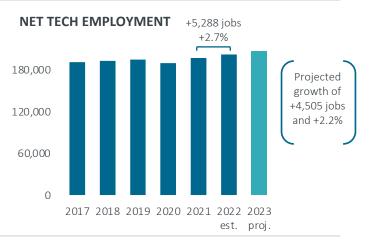


10.000 0

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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

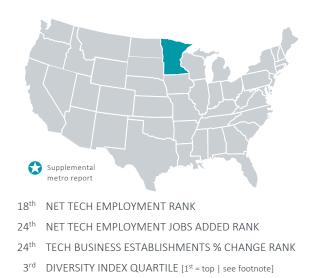




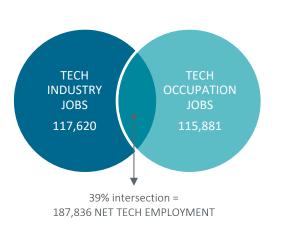
Minnesota

STATE OF TECHNOLOGY SUMMARY

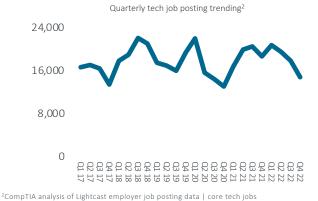
- 187,836 NET TECH EMPLOYMENT¹
- 6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$31.0b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 7.7% ECONOMIC IMPACT AS A % OF OVERALL
- 11,332 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 72,547 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 28.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

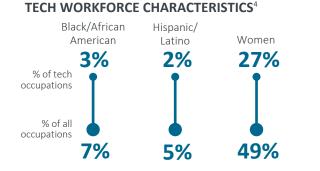


Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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

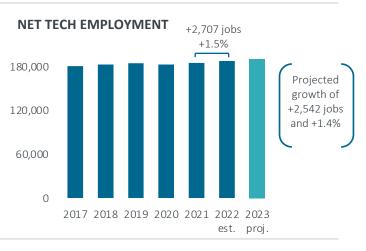


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS





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



2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
47,126	2.5%
17,648	1.5%
16,655	0.6%
14,911	1.0%
4,890	1.8%
4,325	2.4%
	47,126 17,648 16,655 14,911 4,890

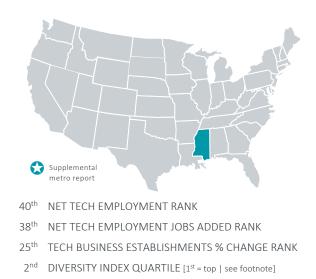
³Projected growth rate for 2023



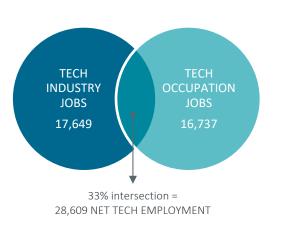
Mississippi

STATE OF TECHNOLOGY SUMMARY

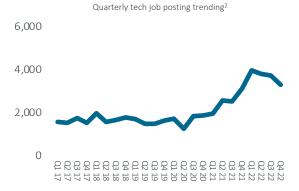
- 28,609 NET TECH EMPLOYMENT¹
- 2.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$3.7b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 3.0% ECONOMIC IMPACT AS A % OF OVERALL
- 3,129 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 14,709 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 26.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



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

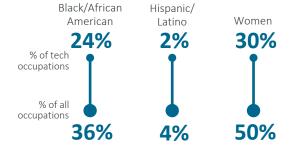


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

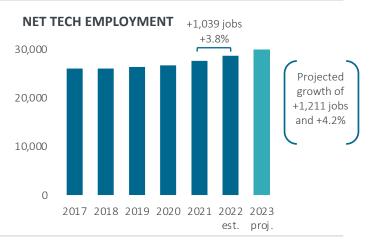


²CompTIA analysis of Lightcast employer job posting data | core tech jobs





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

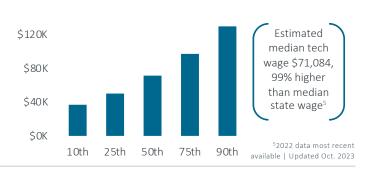


2023 %

LEADING TECH OCCUPATIONS

	2022	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



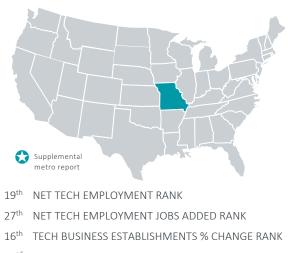
TECH OCCUPATION WAGES [by percentile]

CompTIA.

Missouri

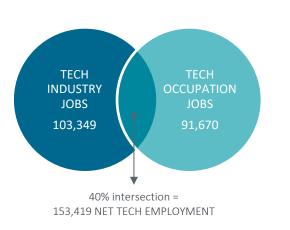
STATE OF TECHNOLOGY SUMMARY

- 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

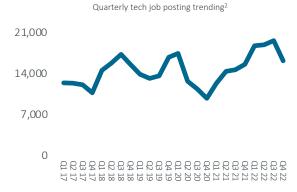


3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

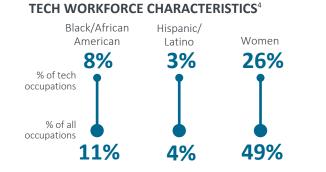
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



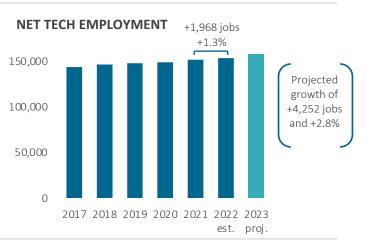
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023



Montana

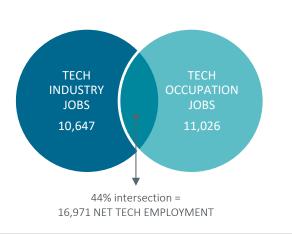
STATE OF TECHNOLOGY SUMMARY

- 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



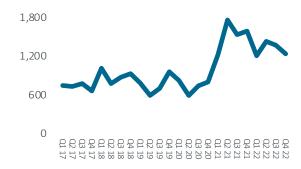
- 11th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

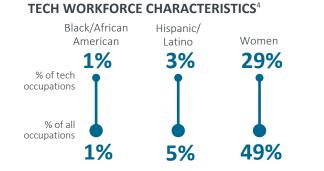


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²

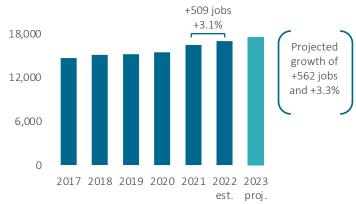


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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

NET TECH EMPLOYMENT

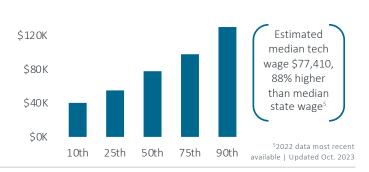


2023 %

LEADING TECH OCCUPATIONS

	2022	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

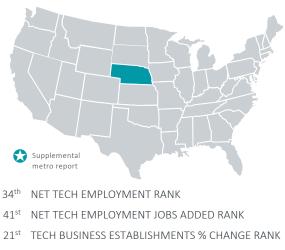


TECH OCCUPATION WAGES [by percentile]

Nebraska

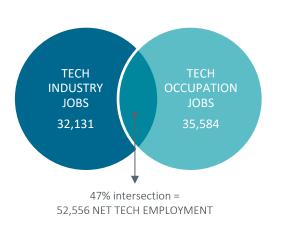
STATE OF TECHNOLOGY SUMMARY

- 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



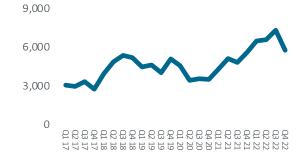
3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

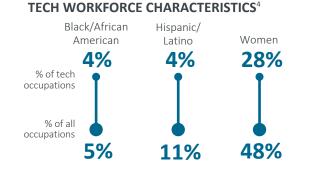


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

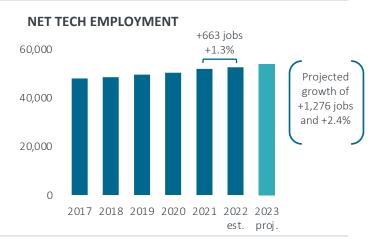
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	11,542	3.9%
Network Engineers, Architects and Support	4,665	0.7%
IT Support Specialist and Repair Technicians	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%

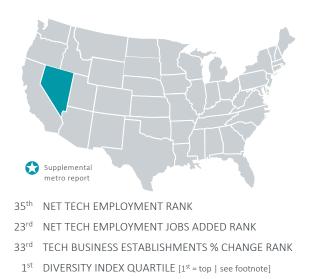
2023 %

³Projected growth rate for 2023

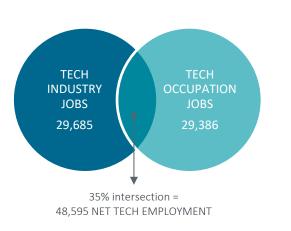


STATE OF TECHNOLOGY SUMMARY

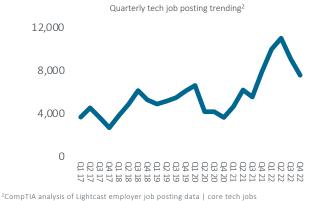
- 48,595 NET TECH EMPLOYMENT¹
- 3.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$8.9b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 4.6% ECONOMIC IMPACT AS A % OF OVERALL
- 5,000 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 37,554 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 27.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



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

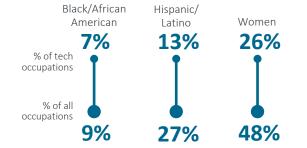


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

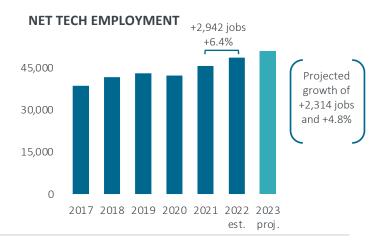


comprise analysis of Eighteast employer job posting data | core teen jobs

TECH WORKFORCE CHARACTERISTICS⁴



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

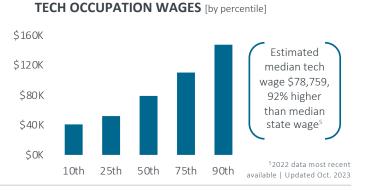


LEADING TECH OCCUPATIONS

	2022	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%

2023 %

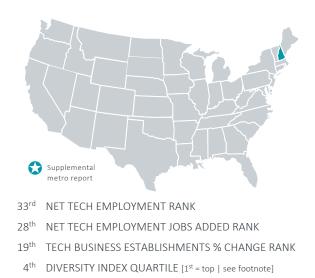
³Projected growth rate for 2023



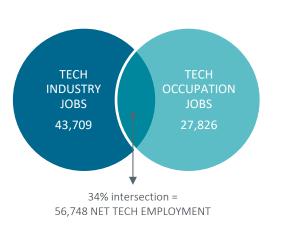
New Hampshire

STATE OF TECHNOLOGY SUMMARY

- 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



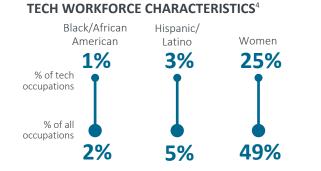
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



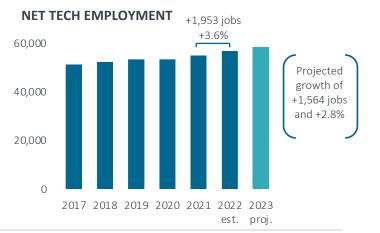
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023

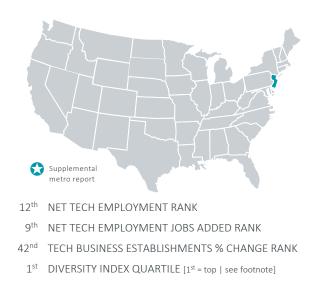


New Jersey

STATE OF TECHNOLOGY SUMMARY

271,312	NET TECH EMPLOYMENT ¹	
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



+8,563 jobs +3.3%

est. proj.

Projected

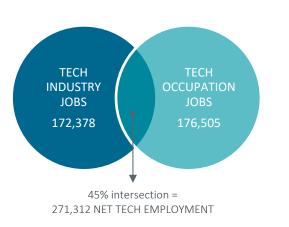
growth of

+6,698 jobs

and +2.5%

2023 %

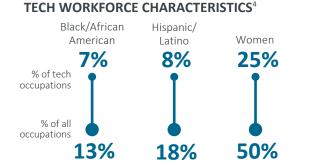
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

NET TECH EMPLOYMENT

240,000

160,000

80.000

0

LEADING TECH OCCUPATIONS

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023

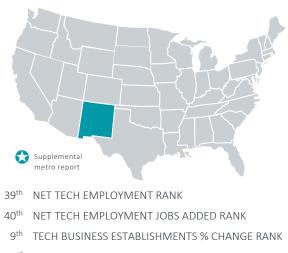


CompTIA

New Mexico

STATE OF TECHNOLOGY SUMMARY

- 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

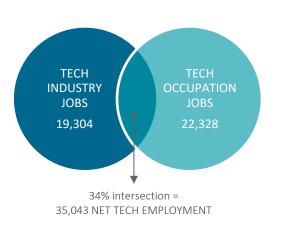


1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

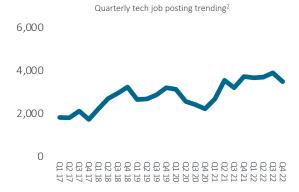
+710 jobs +2.1%

2023 %

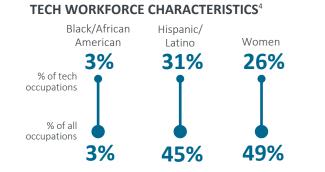
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

30,000 20,000 10,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

	2022	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

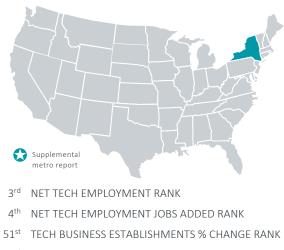


New York

STATE OF TECHNOLOGY SUMMARY

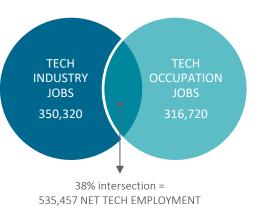
NET TECH EMPLOYMENT ¹
NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
ECONOMIC IMPACT [estimated direct impact of tech sector]
ECONOMIC IMPACT AS A % OF OVERALL
TECH BUSINESS ESTABLISHMENTS [firms with payroll]
EMPLOYER JOB POSTINGS [2022 total for tech occupations]

31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

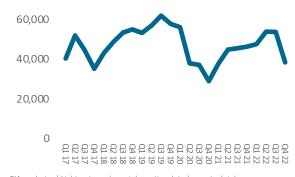


1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

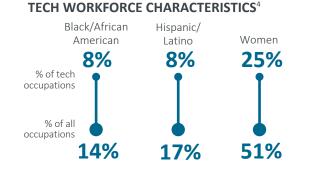
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

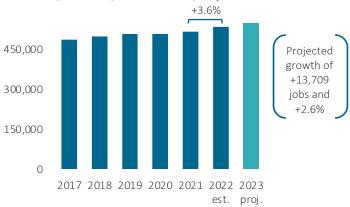


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





2023 %

LEADING TECH OCCUPATIONS

	2022	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%

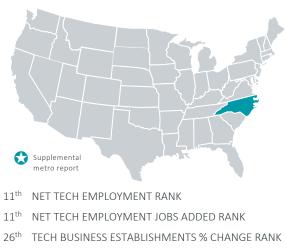
³Projected growth rate for 2023



North Carolina

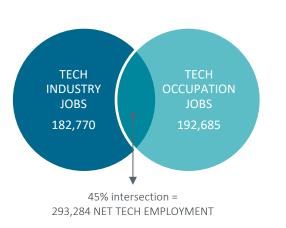
STATE OF TECHNOLOGY SUMMARY

293,284	NET TECH EMPLOYMENT ¹
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

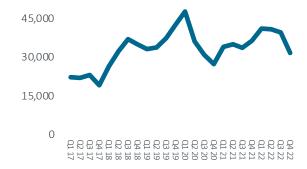


2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

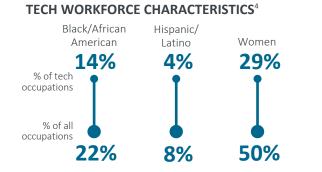
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



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

NET TECH EMPLOYMENT +7,851 jobs 300,000 200,000 100,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

2023 %

LEADING TECH OCCUPATIONS

	2022	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

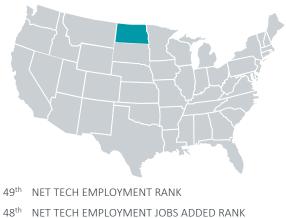


CompTIA.

North Dakota

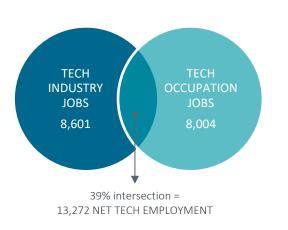
STATE OF TECHNOLOGY SUMMARY

- 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

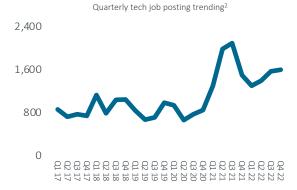


- 3rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

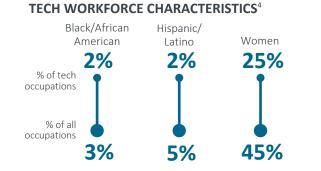
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

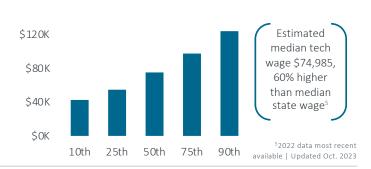
NET TECH EMPLOYMENT +324 jobs 15,000 +2.5% Projected growth of 10,000 +275 jobs and +2.1% 5.000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

	2022	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%

2023 %

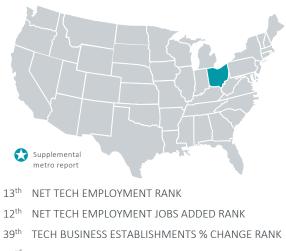
³Projected growth rate for 2023



TECH OCCUPATION WAGES [by percentile]

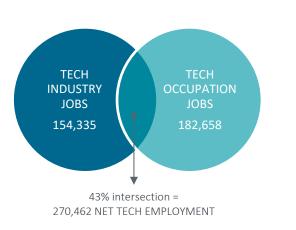
STATE OF TECHNOLOGY SUMMARY

- 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

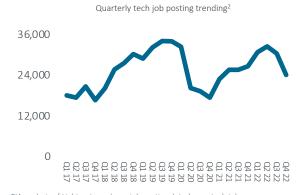


3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

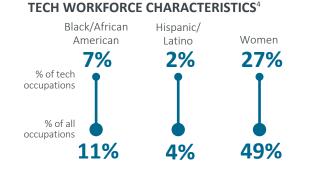
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



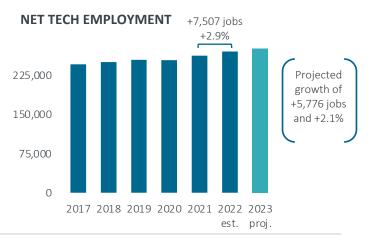
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

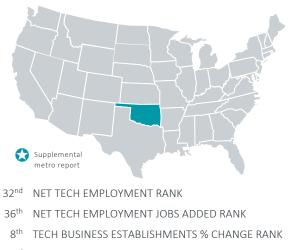
³Projected growth rate for 2023



Oklahoma

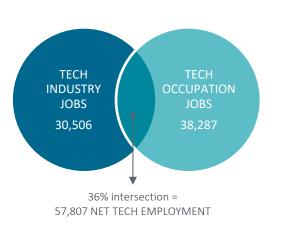
STATE OF TECHNOLOGY SUMMARY

- 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



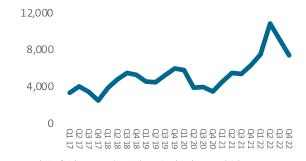
2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

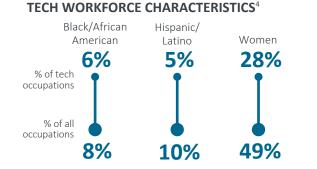


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

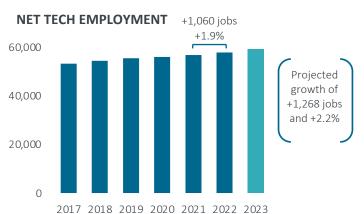
Quarterly tech job posting trending²



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



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



est. proj.

2023 %

LEADING TECH OCCUPATIONS

	2022	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%

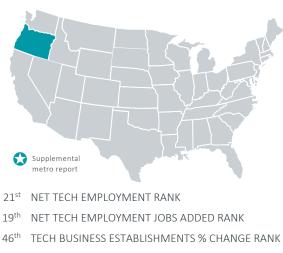
³Projected growth rate for 2023



CompTIA.

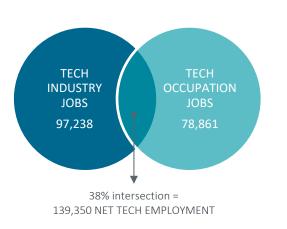
STATE OF TECHNOLOGY SUMMARY

139,350	NET TECH EMPLOYMENT ¹
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



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

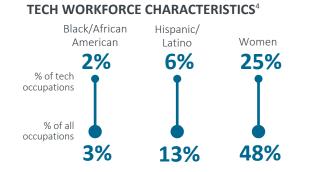
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



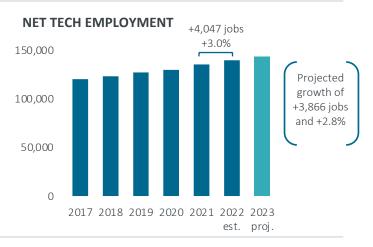
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
27,674	3.8%
10,558	2.1%
9,479	1.7%
8,811	2.7%
3,300	4.0%
3,274	3.6%
	27,674 10,558 9,479 8,811 3,300

³Projected growth rate for 2023

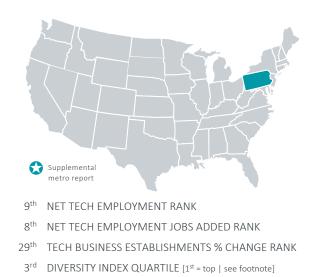


CompTIA.

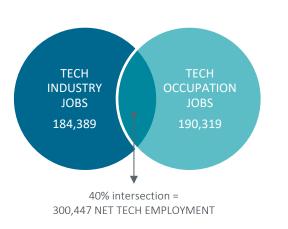
Pennsylvania

STATE OF TECHNOLOGY SUMMARY

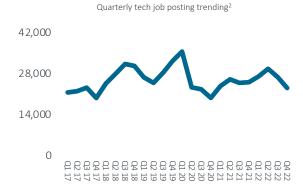
300,447	NET TECH EMPLOYMENT ¹
4.9%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$51.3b	ECONOMIC IMPACT [estimated direct impact of tech sector]
6.3%	ECONOMIC IMPACT AS A % OF OVERALL
18,456	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
105,980	EMPLOYER JOB POSTINGS [2022 total for tech occupations]
30.2%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



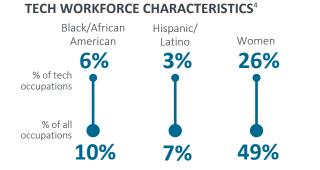
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



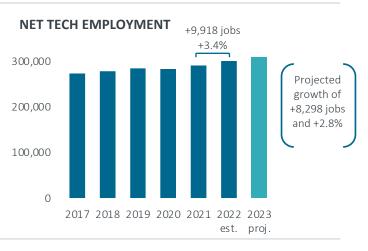
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
64,572	4.2%
32,290	1.5%
22,783	3.0%
22,287	1.9%
17,234	2.0%
11,854	3.2%
	64,572 32,290 22,783 22,287 17,234

³Projected growth rate for 2023

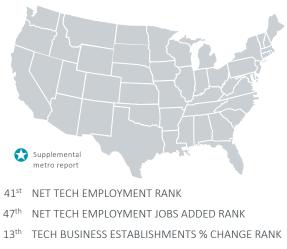


CompTIA.

Rhode Island

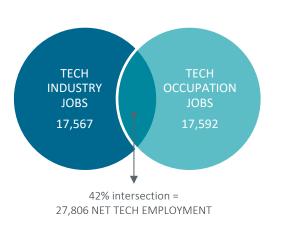
STATE OF TECHNOLOGY SUMMARY

- 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

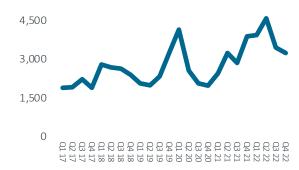


3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

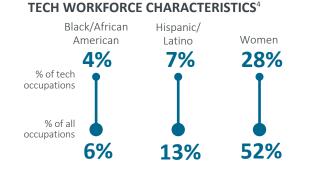
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



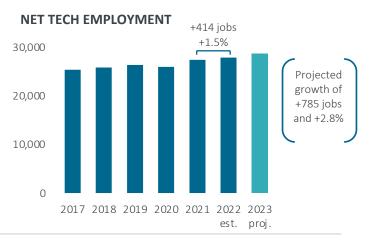
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

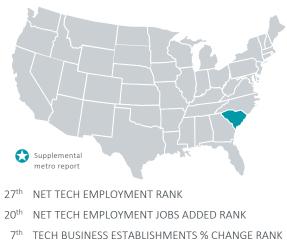
³Projected growth rate for 2023



South Carolina

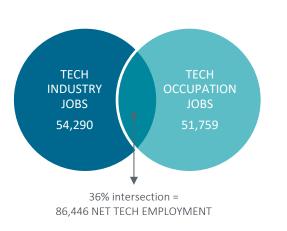
STATE OF TECHNOLOGY SUMMARY

- 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



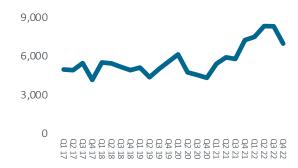
2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

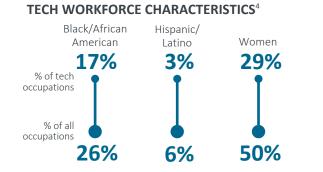


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

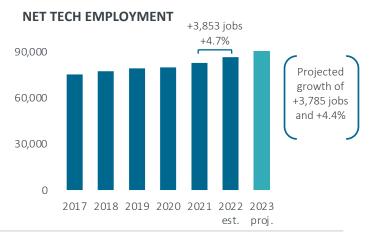
Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

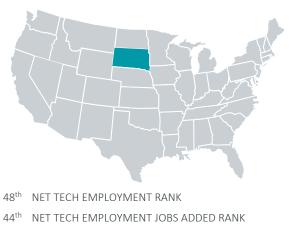
³Projected growth rate for 2023



South Dakota

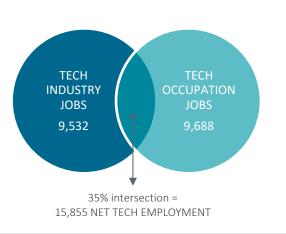
STATE OF TECHNOLOGY SUMMARY

- 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



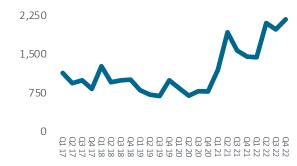
- 2nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

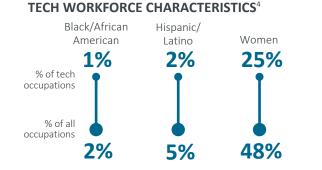


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

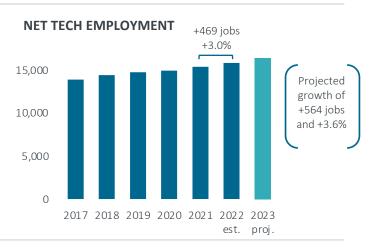
Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
3,206	1.6%
2,677	5.1%
1,397	2.8%
1,325	3.9%
357	4.4%
283	4.5%
	3,206 2,677 1,397 1,325 357

³Projected growth rate for 2023

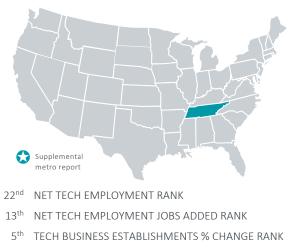


TECH OCCUPATION WAGES [by percentile]

Tennessee

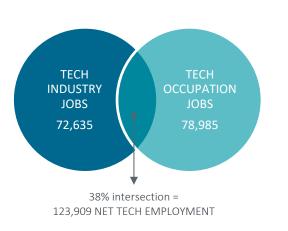
STATE OF TECHNOLOGY SUMMARY

- 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

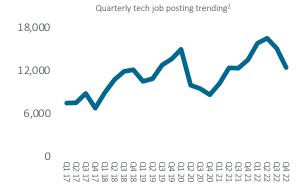


3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

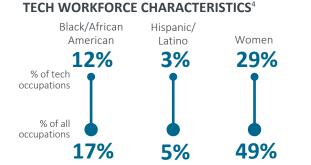
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



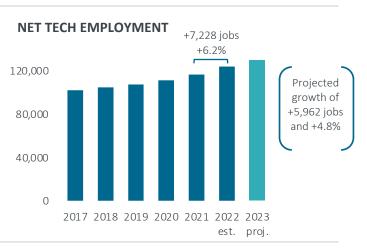
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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

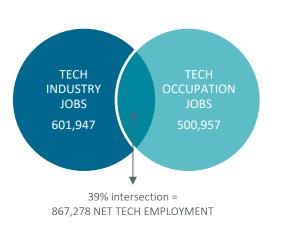


STATE OF TECHNOLOGY SUMMARY

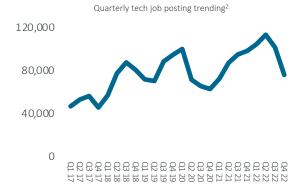
- 867,278 NET TECH EMPLOYMENT¹6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$158.7b ECONOMIC IMPACT [estimated direct impact of tech sector]
 - 7.7% ECONOMIC IMPACT AS A % OF OVERALL
- 44,330 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 394,209 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



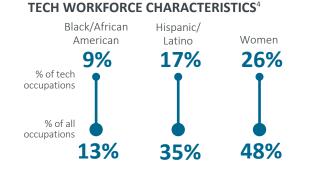
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



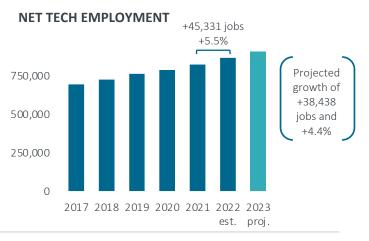
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

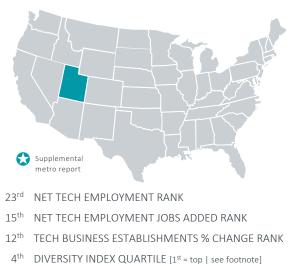
	2022	Change ³
Software, Programmers, Web and QA	170,954	6.6%
IT Support Specialist and Repair Technicians	85,156	3.6%
Cybersecurity and Systems Engineers	72,566	4.9%
Network Engineers, Architects and Support	63,619	3.8%
Emerging Tech, IT Project Mgt. and Other	36,843	4.4%
Database, Data Science, Analytics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

³Projected growth rate for 2023

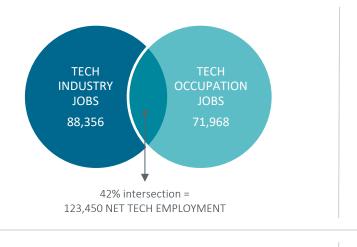


STATE OF TECHNOLOGY SUMMARY

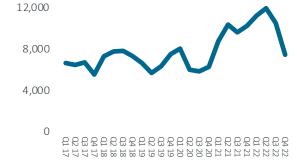
- 123,450 NET TECH EMPLOYMENT¹
- 7.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$21.8b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 10.0% ECONOMIC IMPACT AS A % OF OVERALL
- 9,286 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 41,005 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 28.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



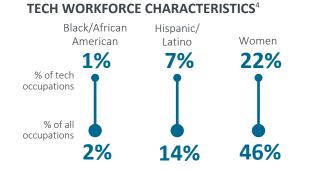
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



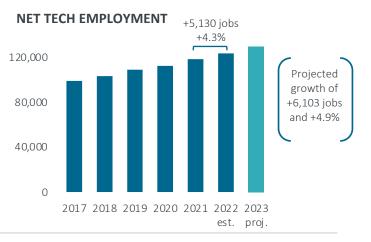




²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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



2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	29,987	6.4%
IT Support Specialist and Repair Technicians	12,998	3.9%
Emerging Tech, IT Project Mgt. and Other	8,117	4.0%
Network Engineers, Architects and Support	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



Vermont

STATE OF TECHNOLOGY SUMMARY

- 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



- 50th NET TECH EMPLOYMENT JOBS ADDED RANK
- 4th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

Projected

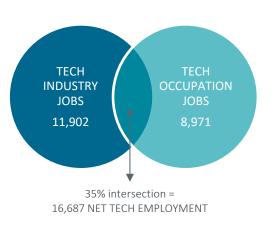
growth of

+253 jobs

and +1.5%

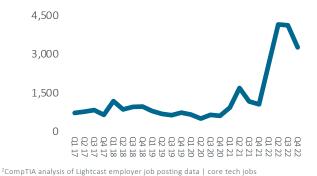
2023 %

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

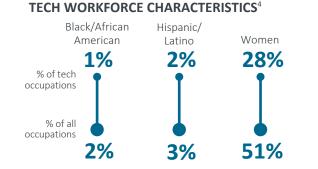


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

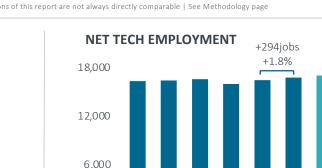
Quarterly tech job posting trending²



compilia analysis of Lightcast employer job posting data | core tech jobs



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



est. proj.

LEADING TECH OCCUPATIONS

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023

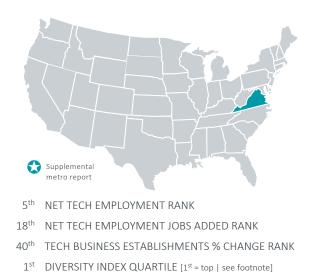
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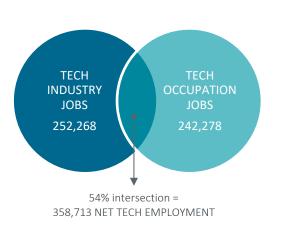
Virginia

STATE OF TECHNOLOGY SUMMARY

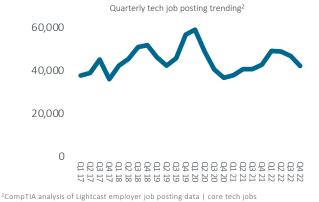
358,713	NET TECH EMPLOYMENT ¹
8.7%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$61.9b	ECONOMIC IMPACT [estimated direct impact of tech sector]
10.8%	ECONOMIC IMPACT AS A % OF OVERALL
23,483	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
186,340	EMPLOYER JOB POSTINGS [2022 total for tech occupations]
30.8%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

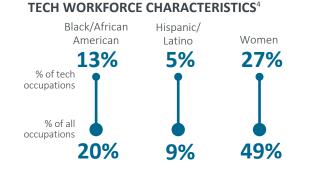


Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS





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

250,000

NET TECH EMPLOYMENT

375,000

125,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

+4,898 jobs +1.4%

Projected

growth of

+7,579 jobs

and +2.1%

2023 %

LEADING TECH OCCUPATIONS

	2022	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%

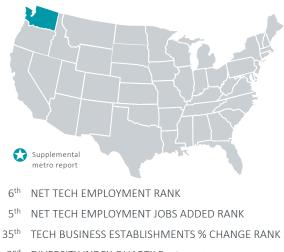
³Projected growth rate for 2023



Washington

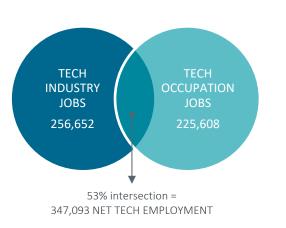
STATE OF TECHNOLOGY SUMMARY

- 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



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

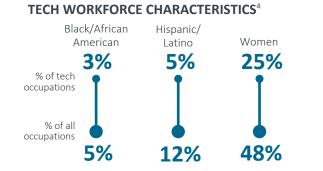
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



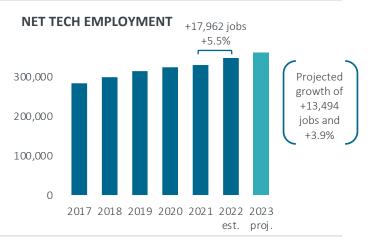
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

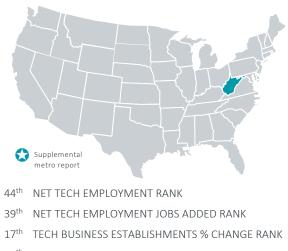
³Projected growth rate for 2023



West Virginia

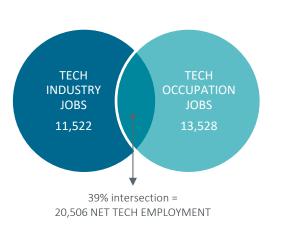
STATE OF TECHNOLOGY SUMMARY

- 20,506 NET TECH EMPLOYMENT¹
- 2.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$2.3b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 2.8% ECONOMIC IMPACT AS A % OF OVERALL
- 2,467 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 4,957 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 24.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



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

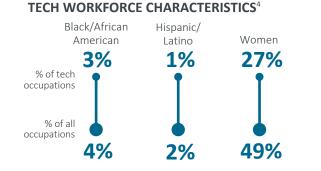


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

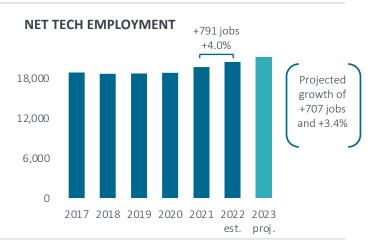
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

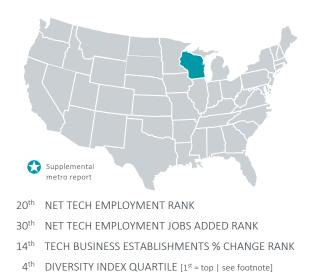
³Projected growth rate for 2023



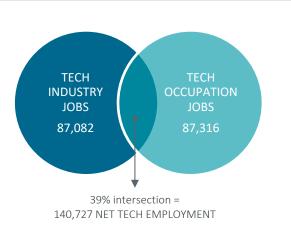
Wisconsin

STATE OF TECHNOLOGY SUMMARY

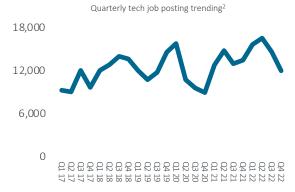
- 140,727 NET TECH EMPLOYMENT¹
- 4.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$21.1b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 6.0% ECONOMIC IMPACT AS A % OF OVERALL
- 8,877 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 58,539 EMPLOYER JOB POSTINGS [2022 total for tech occupations]
- 28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



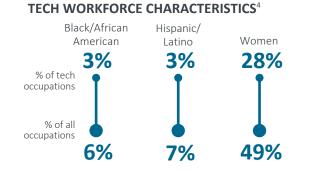
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



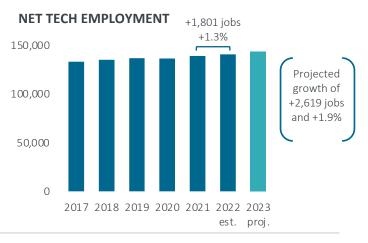
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

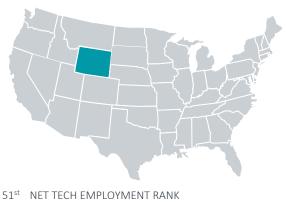
³Projected growth rate for 2023



Wyoming

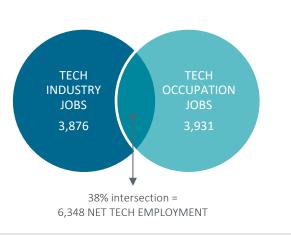
STATE OF TECHNOLOGY SUMMARY

- 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



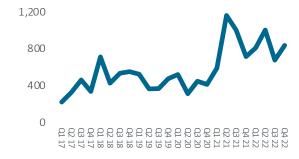
- 49th NET TECH EMPLOYMENT JOBS ADDED RANK
- 1st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

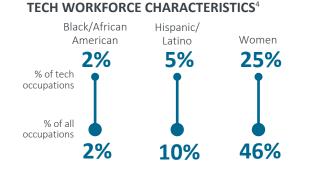


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

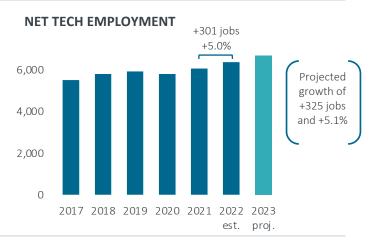
Quarterly tech job posting trending²



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



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

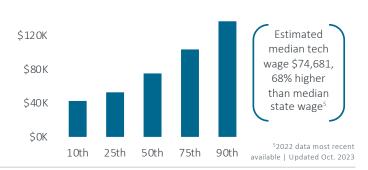


2023 %

LEADING TECH OCCUPATIONS

	2022	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 OCCUPATION WAGES [by percentile]

METRO AREA SNAPSHOTS

Albuquerque

Full MSA name: Albuquerque, NM

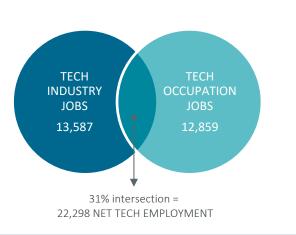
STATE OF TECHNOLOGY SUMMARY

- 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

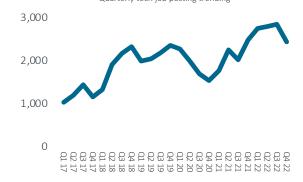


- .
- 40th NET TECH EMPLOYMENT JOBS ADDED RANK
- 6th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

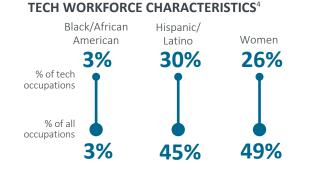
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



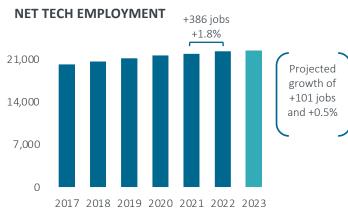
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



est. proj.

2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
3,252	3.2%
2,221	0.3%
2,189	1.9%
1,776	-0.3%
1,014	2.2%
704	2.6%
	3,252 2,221 2,189 1,776 1,014

³Projected growth rate for 2023



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

STATE OF TECHNOLOGY SUMMARY

- 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



- 42nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- DIVERSITY INDEX QUARTILE [1st = top | see footnote] 1st

+4,514 jobs +2.1%

est. proj

Projected

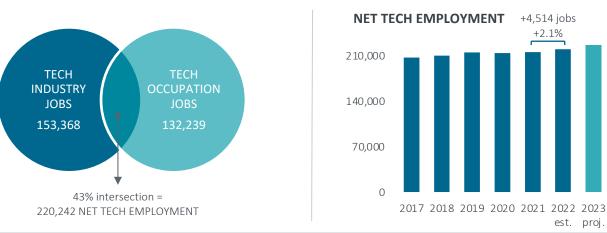
growth of

+6,005 jobs

and +2.7%

2023 %

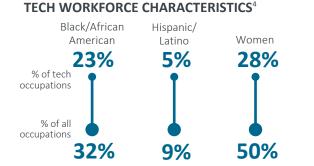
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

CompTIA



	2022	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%

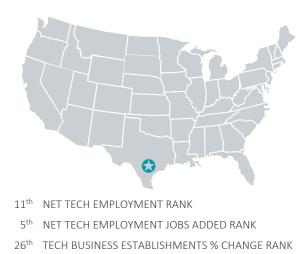




Full MSA name: Austin-Round Rock-Georgetown, TX

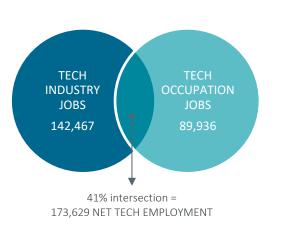
STATE OF TECHNOLOGY SUMMARY

- 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

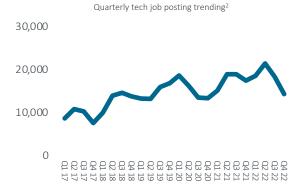


1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

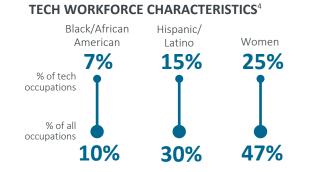
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



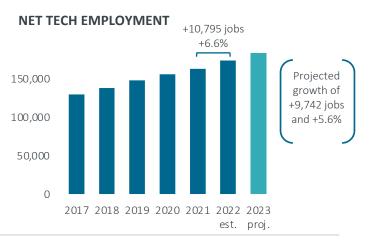
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

2022	Change ³
36,161	8.0%
12,445	6.7%
11,869	5.3%
9,588	5.8%
7,129	5.6%
3,643	7.7%
	36,161 12,445 11,869 9,588 7,129

³Projected growth rate for 2023

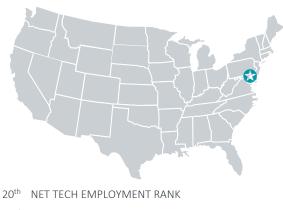


Baltimore

Full MSA name: Baltimore-Columbia-Towson, MD

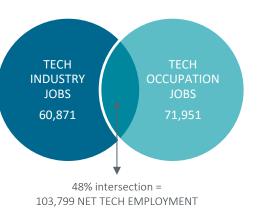
STATE OF TECHNOLOGY SUMMARY

- 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

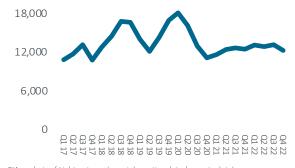


- 51st NET TECH EMPLOYMENT JOBS ADDED RANK
- TECH BUSINESS ESTABLISHMENTS % CHANGE RANK 32nd
- DIVERSITY INDEX QUARTILE [1st = top | see footnote]

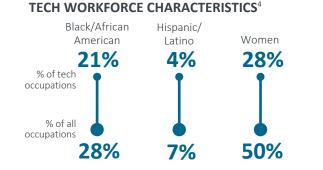
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

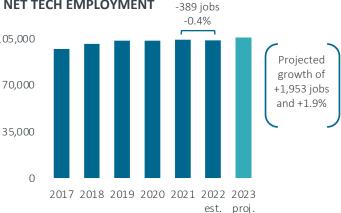


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





2023 %

LEADING TECH OCCUPATIONS

	2022	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%

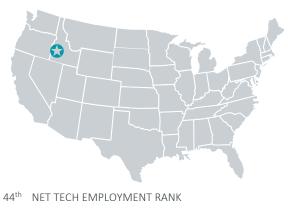
³Projected growth rate for 2023



Full MSA name: Boise City - Nampa, ID

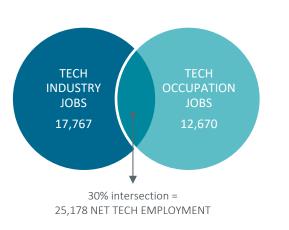
STATE OF TECHNOLOGY SUMMARY

- 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



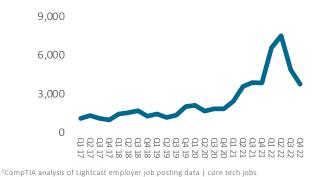
- 37th NET TECH EMPLOYMENT JOBS ADDED RANK
- 4th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

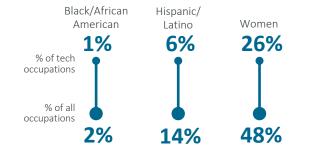


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

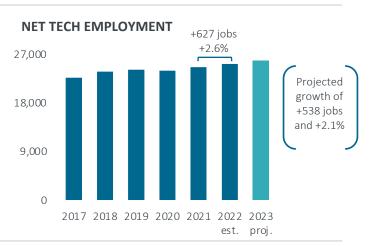
Quarterly tech job posting trending²



TECH WORKFORCE CHARACTERISTICS⁴



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

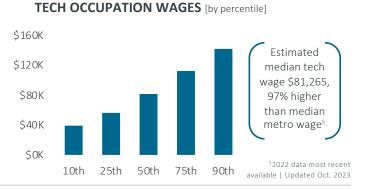


LEADING TECH OCCUPATIONS

	2022	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%

2023 %

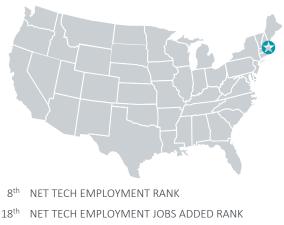
³Projected growth rate for 2023



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

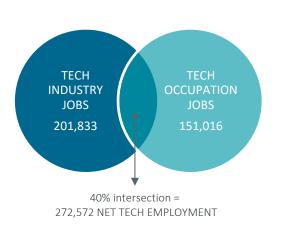
STATE OF TECHNOLOGY SUMMARY

- 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

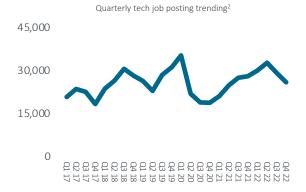


- 30th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

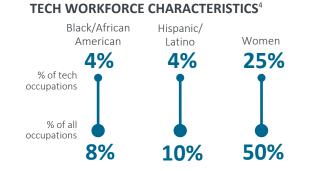
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



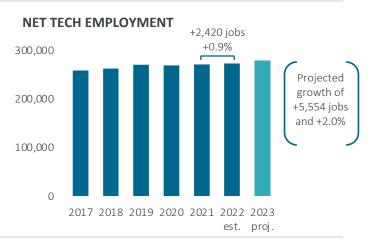
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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



Full MSA name: Buffalo-Cheektowaga, NY

STATE OF TECHNOLOGY SUMMARY

- 23,038 NET TECH EMPLOYMENT¹
- 4.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$3.5b ECONOMIC IMPACT [estimated direct impact of tech sector]
- ECONOMIC IMPACT AS A % OF OVERALL 4.8%
- 740 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- EMPLOYER JOB POSTINGS [2022 total for tech occupations] 9,669
- 26.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



- 51st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+679 jobs +3.0%

est. proj.

Projected

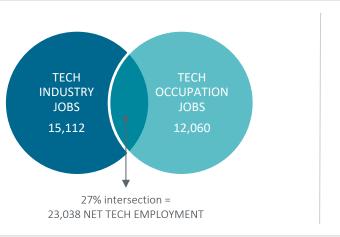
growth of

+316 jobs

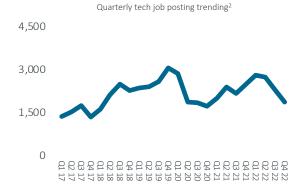
and +1.4%

2023 %

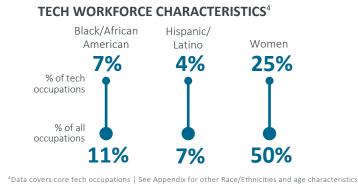
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



2017 2018 2019 2020 2021 2022 2023

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

24,000

16,000

8,000

0

	2022	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



Charleston

Full MSA name: Charleston-North Charleston, SC

STATE OF TECHNOLOGY SUMMARY

- 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]

+880 jobs +4.9%

est. proj.

Projected

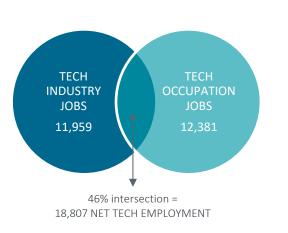
growth of

+754 jobs

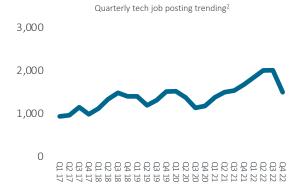
and +4.0%

2023 % 2022 Change³

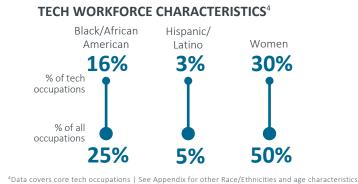
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

18,000

12,000

6,000

0

		0
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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023



CompTIA.

Charlotte

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

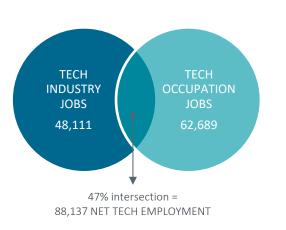
STATE OF TECHNOLOGY SUMMARY

- 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

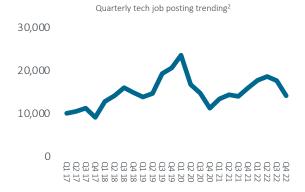


- 22nd NET TECH EMPLOYMENT RANK
- 17th NET TECH EMPLOYMENT JOBS ADDED RANK
- TECH BUSINESS ESTABLISHMENTS % CHANGE RANK 15th
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

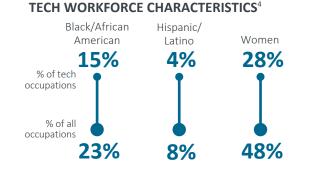
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



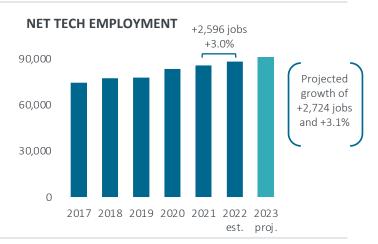
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



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

STATE OF TECHNOLOGY SUMMARY

TECH

INDUSTRY

JOBS

152,371

- 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

TECH

OCCUPATION

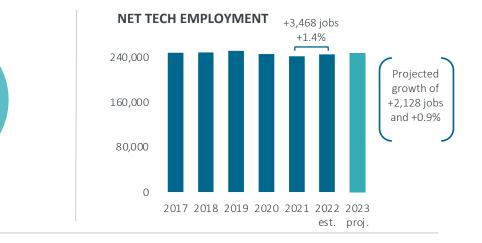
JOBS

153,383



- 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



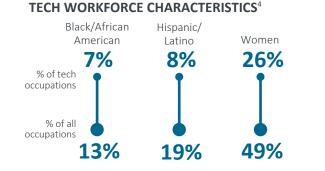
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

40% intersection =

245,390 NET TECH EMPLOYMENT



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



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

LEADING TECH OCCUPATIONS

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

³Projected growth rate for 2023

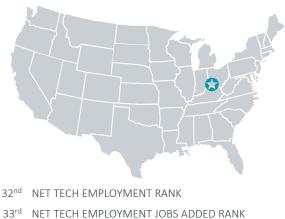


Cincinnati

Full MSA name: Cincinnati, OH-KY-IN

STATE OF TECHNOLOGY SUMMARY

- 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



- 19th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+815 jobs +1.5%

Projected

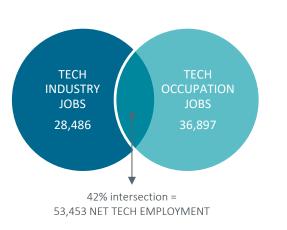
growth of

+929 jobs

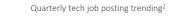
and +1.7%

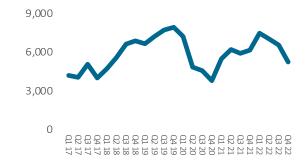
2023 %

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

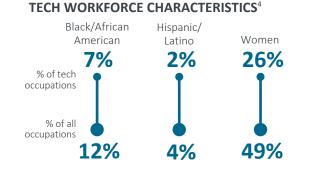


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS





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



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

30,000 15,000

> 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

45.000

0

	2022	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%

³Projected growth rate for 2023



Cleveland

Full MSA name: Cleveland-Elyria, OH

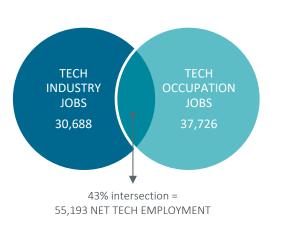
STATE OF TECHNOLOGY SUMMARY

- 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



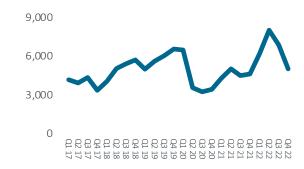
- 24th NET TECH EMPLOYMENT JOBS ADDED RANK
- 25th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

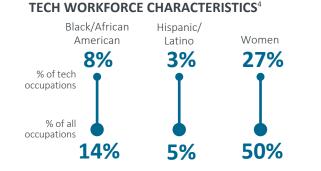


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

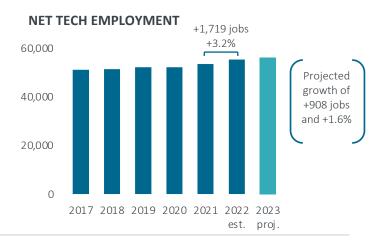
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



CompTIA.

Colorado Springs

Full MSA name: Colorado Springs, CO

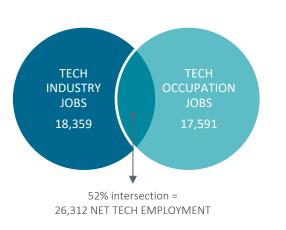
STATE OF TECHNOLOGY SUMMARY

- 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



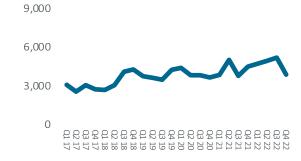
- 32nd NET TECH EMPLOYMENT JOBS ADDED RANK
- 17th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

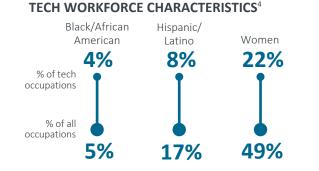


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²

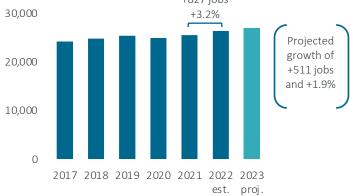


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





2023 %

LEADING TECH OCCUPATIONS

	2022	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%

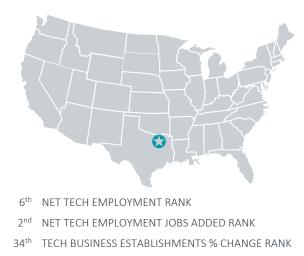
³Projected growth rate for 2023



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

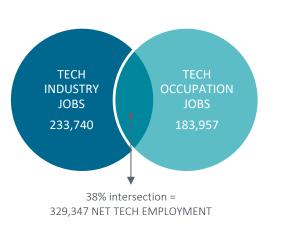
STATE OF TECHNOLOGY SUMMARY

- 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

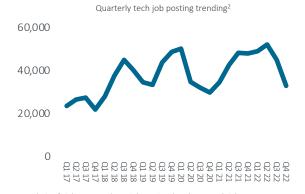


1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

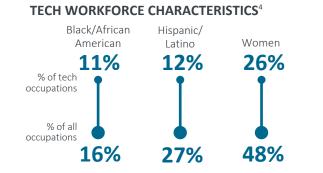
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



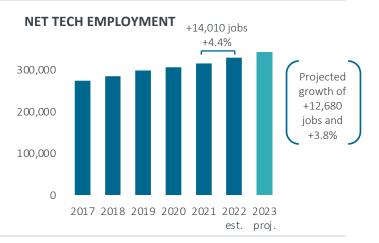
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	54,791	5.9%
IT Support Specialist and Repair Technicians	30,191	3.5%
Cybersecurity and Systems Engineers 2	26,481	4.7%
Network Engineers, Architects and Support	24,089	3.4%
Emerging Tech, IT Project Mgt. and Other	1,011	4.3%
Database, Data Science, Analytics and CS	8,091	5.4%

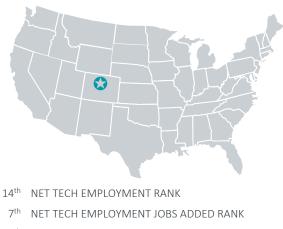
³Projected growth rate for 2023



Full MSA name: Denver-Aurora-Lakewood, CO

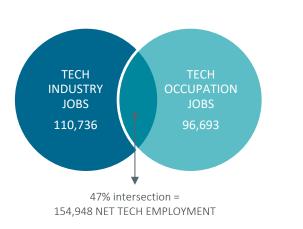
STATE OF TECHNOLOGY SUMMARY

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

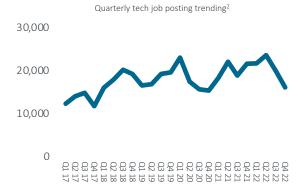


- 11th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

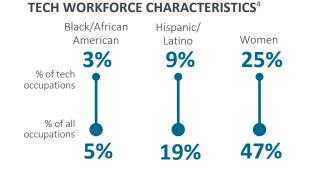
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



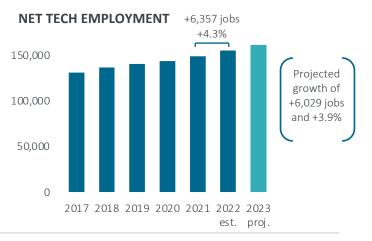
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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



Des Moines

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

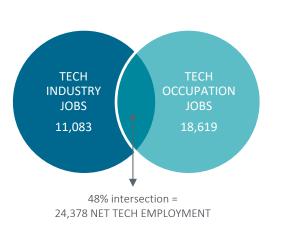
STATE OF TECHNOLOGY SUMMARY

- 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

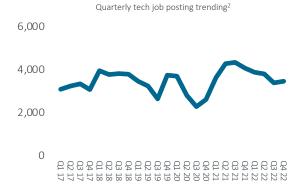


- 45th NET TECH EMPLOYMENT RANK
- 47th NET TECH EMPLOYMENT JOBS ADDED RANK
- 10th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

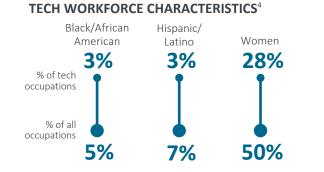
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



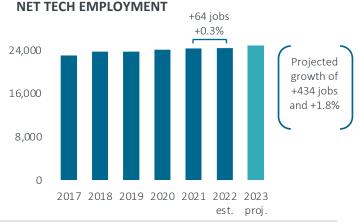
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	6,774	2.6%
Cybersecurity and Systems Engineers	3,693	1.8%
Network Engineers, Architects and Support	2,225	1.0%
IT Support Specialist and Repair Technicians	2,088	1.4%
Database, Data Science, Analytics and CS	1,486	2.9%
Emerging Tech, IT Project Mgt. and Other	607	2.8%

³Projected growth rate for 2023



Full MSA name: Detroit-Warren-Dearborn, MI

STATE OF TECHNOLOGY SUMMARY

- 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



- 30th NET TECH EMPLOYMENT JOBS ADDED RANK
- 41st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+1,060 jobs +1.0%

Projected

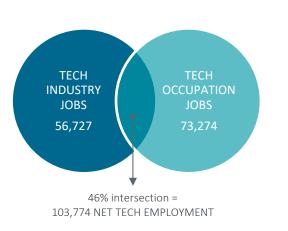
growth of

+483 jobs

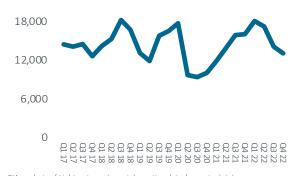
and +0.5%

2023 %

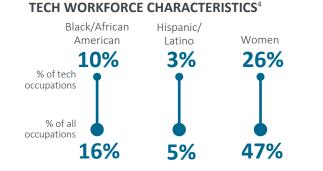
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



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

35.000 0 2017 2018 2019 2020 2021 2022 2023 est. proj

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

105,000

70,000

	2022	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%

³Projected growth rate for 2023



Hartford

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

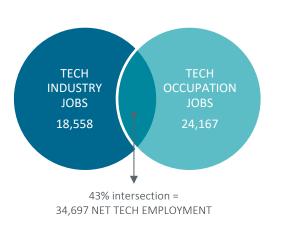
STATE OF TECHNOLOGY SUMMARY

- 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



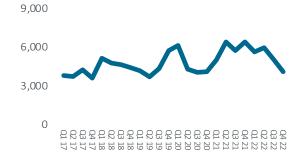
- NET TECH EMPLOYMENT JOBS ADDED RANK
- 28th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

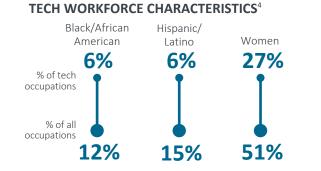


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²

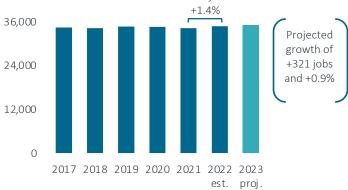


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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

NET TECH EMPLOYMENT +463 jobs



2023 %

LEADING TECH OCCUPATIONS

	2022	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



CompTIA

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

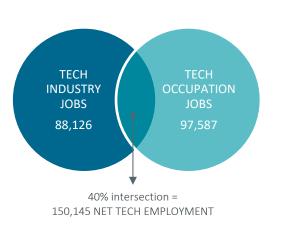
STATE OF TECHNOLOGY SUMMARY

- 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

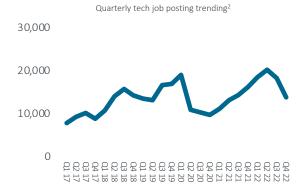


- 9st NET TECH EMPLOYMENT JOBS ADDED RANK
- 40th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

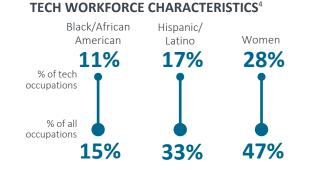
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



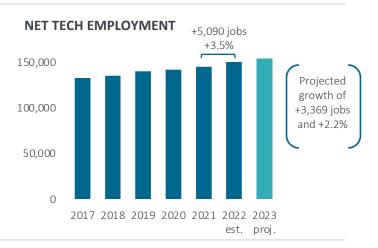
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

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

³Projected growth rate for 2023



Huntsville

Full MSA name: Huntsville, AL

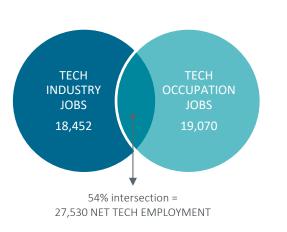
STATE OF TECHNOLOGY SUMMARY

- 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



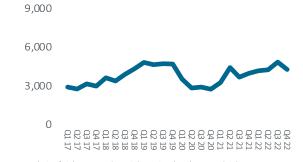
- 46th NET TECH EMPLOYMENT JOBS ADDED RANK
- 7th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

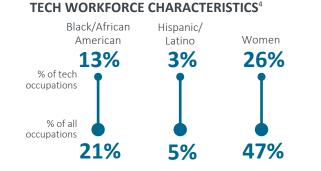


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

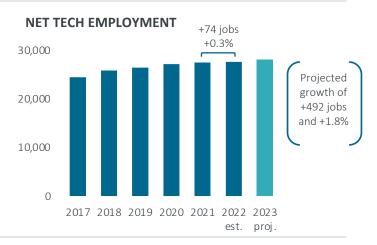
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



Indianapolis

Full MSA name: Indianapolis-Carmel-Anderson, IN

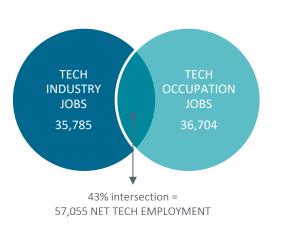
STATE OF TECHNOLOGY SUMMARY

- 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



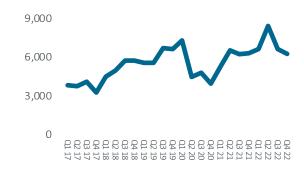
- NET TECH EMPLOYMENT RANK
- NET TECH EMPLOYMENT JOBS ADDED RANK 28th
- 13th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

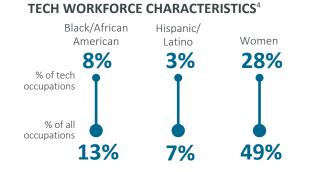


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

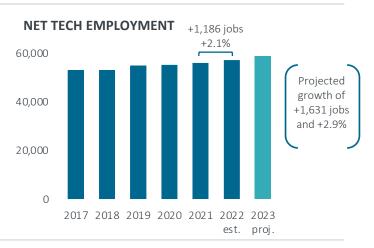
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

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

2023 %

³Projected growth rate for 2023



Kansas City

Full MSA name: Kansas City, MO-KS

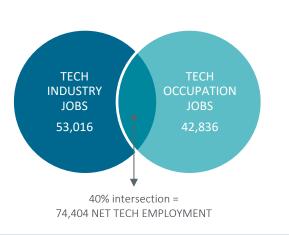
STATE OF TECHNOLOGY SUMMARY

- 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



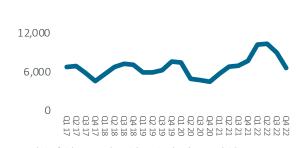
- 16th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

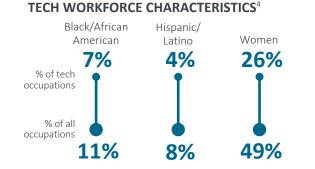


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

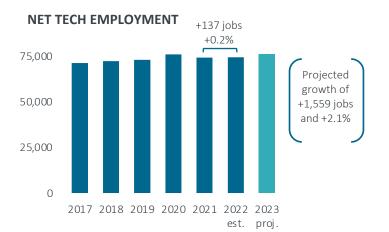
Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023



CompTIA

18,000

Las Vegas

Full MSA name: Las Vegas-Henderson-Paradise, NV

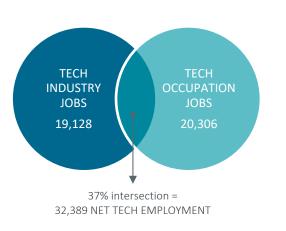
STATE OF TECHNOLOGY SUMMARY

- 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



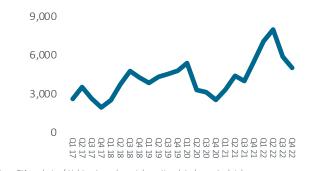
- 23rd NET TECH EMPLOYMENT JOBS ADDED RANK
- 18th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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



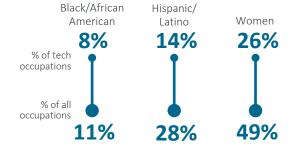
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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

TECH WORKFORCE CHARACTERISTICS⁴



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

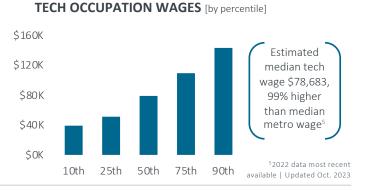
NET TECH EMPLOYMENT +1,938 jobs +6.4% 20,000 20,000 10,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	5,892	5.7%
IT Support Specialist and Repair Technicians	5,061	3.0%
Network Engineers, Architects and Support	2,915	3.4%
Emerging Tech, IT Project Mgt. and Other	2,020	3.6%
Cybersecurity and Systems Engineers	1,720	5.9%
Database, Data Science, Analytics and CS	1,048	5.3%

2023 %

³Projected growth rate for 2023



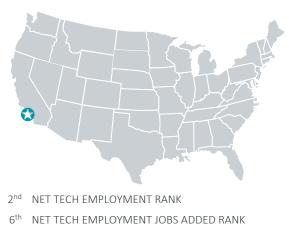
CompTIA.

Los Angeles

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

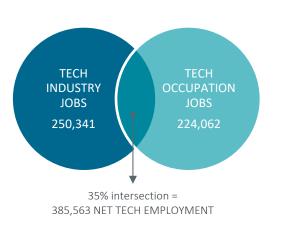
STATE OF TECHNOLOGY SUMMARY

- 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

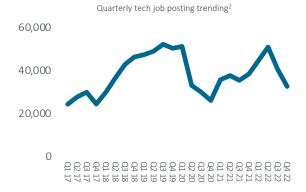


- 50th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 1^{st} DIVERSITY INDEX QUARTILE [1st = top | see footnote]

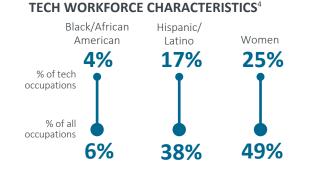
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



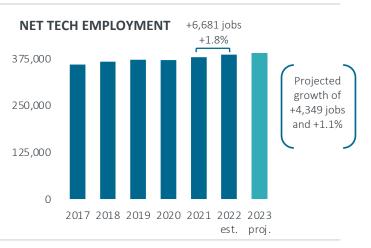
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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



Memphis

Full MSA name: Memphis, TN-MS-AR

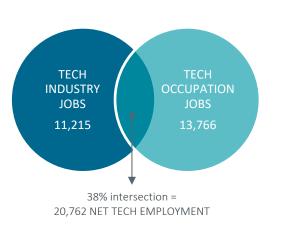
STATE OF TECHNOLOGY SUMMARY

- 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



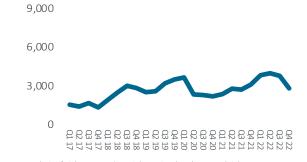
- 12th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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



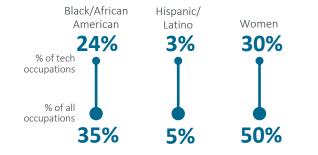
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²

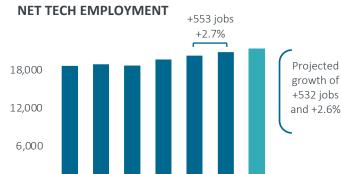


²CompTIA analysis of Lightcast employer job posting data | core tech jobs





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



2017 2018 2019 2020 2021 2022 2023 est. proj.

2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023

0



CompTIA.

Full MSA name: Miami-Fort Lauderdale-Pompano Beach, FL

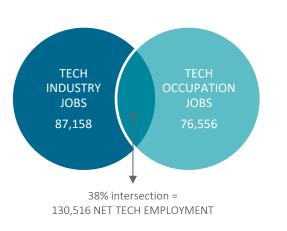
STATE OF TECHNOLOGY SUMMARY

- 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

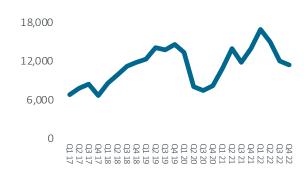


- 24th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

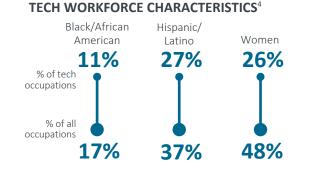
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



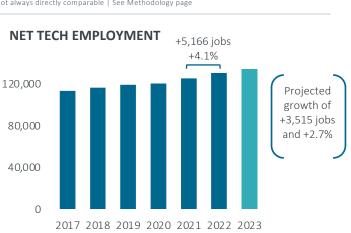
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



est. proj

2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
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



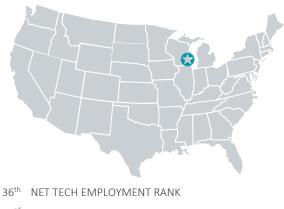
CompTIA.

Milwaukee

Full MSA name: Milwaukee-Waukesha, WI

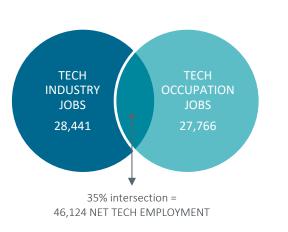
STATE OF TECHNOLOGY SUMMARY

- 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



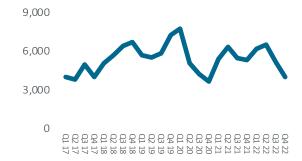
- 43rd NET TECH EMPLOYMENT JOBS ADDED RANK
- 38th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

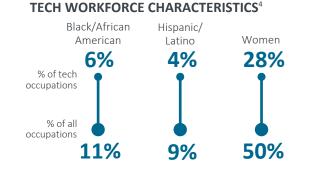


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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



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

45,000 45,000 15,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

	2022	Change ³
Software, Programmers, Web and QA 1	0,677	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%

2023 %

³Projected growth rate for 2023



CompTIA.

Minneapolis

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

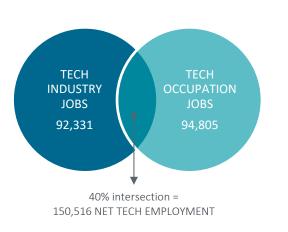
STATE OF TECHNOLOGY SUMMARY

- 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

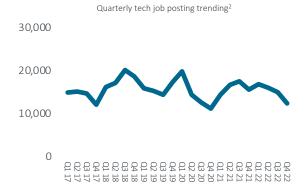


- IS NET TECH EIWITEOTIMEINT NANK
- 29th NET TECH EMPLOYMENT JOBS ADDED RANK
- 37th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

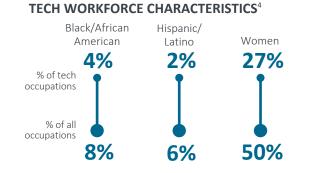
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



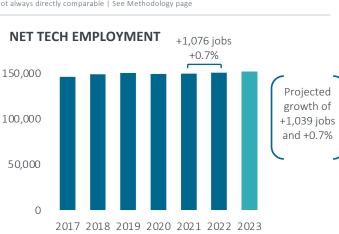
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



est. proj

2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023



Nashville

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

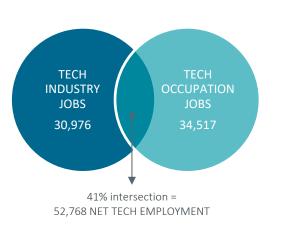
STATE OF TECHNOLOGY SUMMARY

- 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

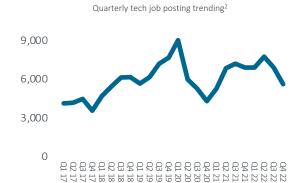


- 34th NET TECH EMPLOYMENT RANK
- 13th NET TECH EMPLOYMENT JOBS ADDED RANK
- 1^{st} $\,$ TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

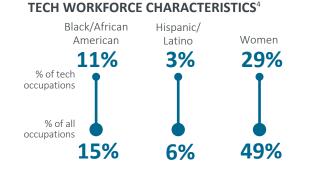
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



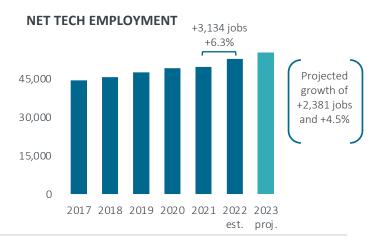
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

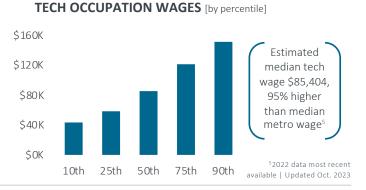


2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	10,218	7.1%
Emerging Tech, IT Project Mgt. and Other	5,671	2.8%
Network Engineers, Architects and Support	4,553	3.2%
IT Support Specialist and Repair Technicians	4,062	4.8%
Cybersecurity and Systems Engineers	4,021	4.9%
Database, Data Science, Analytics and CS	1,627	5.8%

³Projected growth rate for 2023



New Orleans

Full MSA name: New Orleans-Metairie, LA

STATE OF TECHNOLOGY SUMMARY

- 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

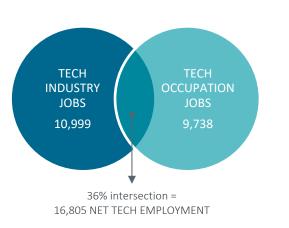


- 51st NET TECH EMPLOYMENT RANK
- 34th NET TECH EMPLOYMENT JOBS ADDED RANK
- 5th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

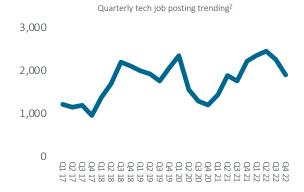
+717 jobs

2023 %

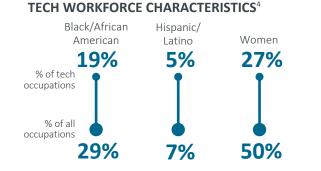
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

16,000 12,000 8,000 4,000 0 2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

	2022	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%

³Projected growth rate for 2023

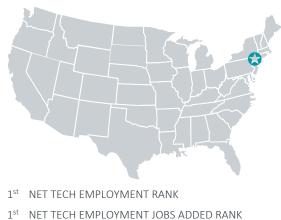


New York City

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

STATE OF TECHNOLOGY SUMMARY

- 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



NET TECH EMPLOYMENT +18,420 jobs

- 44th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- DIVERSITY INDEX QUARTILE [1st = top | see footnote] 1st

+3.4%

est. proj

Projected

growth of

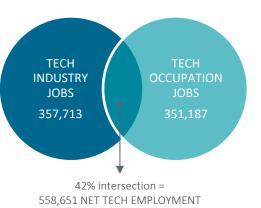
+12,869

jobs and

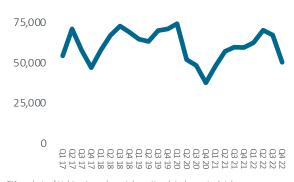
+2.3%

2023 %

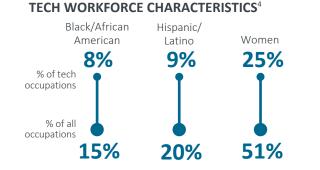
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

Quarterly tech job posting trending²

LEADING TECH OCCUPATIONS

525,000

350,000

175,000

0

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023



Oklahoma City

Full MSA name: Oklahoma City, OK

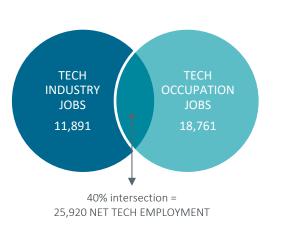
STATE OF TECHNOLOGY SUMMARY

- 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



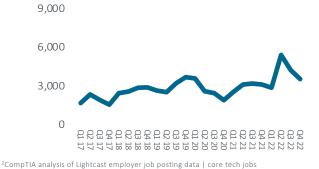
- 43rd NET TECH EMPLOYMENT RANK
- 36th NET TECH EMPLOYMENT JOBS ADDED RANK
- 9th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK

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



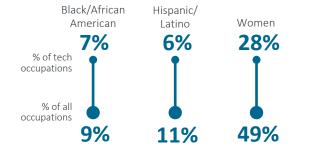
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



comprix analysis of Eighteast employer job posting data | core tech jobs

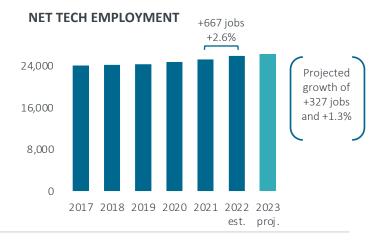




⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics



3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote] f tech industry + tech occupation employment directly comparable | See Methodology page



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



Full MSA name: Omaha-Council Bluffs, NE-IA

STATE OF TECHNOLOGY SUMMARY

- 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



- 31st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

-312 jobs -1.0%

est. proj.

Projected

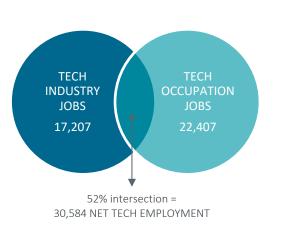
growth of

+379 jobs

and +1.2%

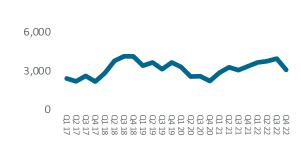
2023 %

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



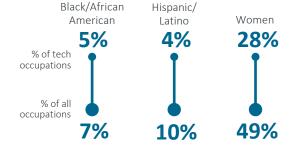
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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





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



9,000

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

27,000

18,000

9,000

0

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023



Full MSA name: Orlando-Kissimmee-Sanford, FL

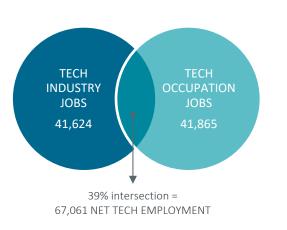
STATE OF TECHNOLOGY SUMMARY

- 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

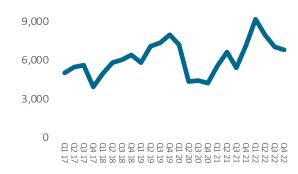


- 19th NET TECH EMPLOYMENT JOBS ADDED RANK
- 22nd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

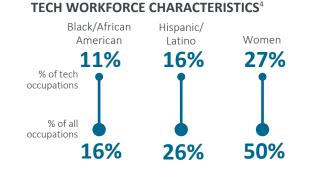
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



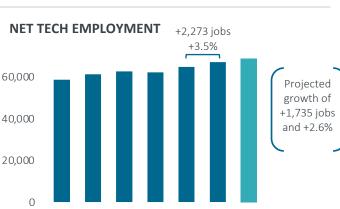
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2017 2018 2019 2020 2021 2022 2023

est. proj.

2023 %

³Projected growth rate for 2023



CompTIA.

Philadelphia

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

STATE OF TECHNOLOGY SUMMARY

- 155,592 NET TECH EMPLOYMENT¹
 - NET EMPLOYMENT AS A % OF OVERALL WORKFORCE 5.2%
- \$35.5b ECONOMIC IMPACT [estimated direct impact of tech sector]
- ECONOMIC IMPACT AS A % OF OVERALL 7.6%
- 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]

+2,255 jobs +1.5%

est. proj

Projected

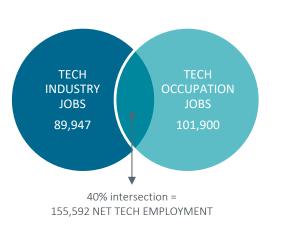
growth of

+1,181 jobs

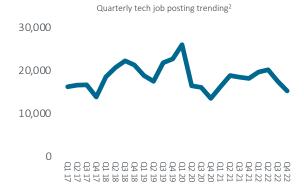
and +0.8%

2023 %

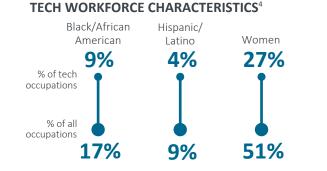
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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

CompTIA

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NET TECH EMPLOYMENT

150.000

100,000

50.000

0

LEADING TECH OCCUPATIONS

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023



Full MSA name: Phoenix-Mesa-Chandler, AZ

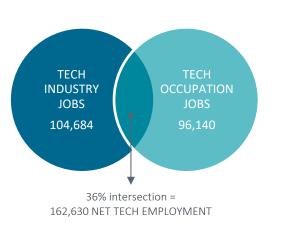
STATE OF TECHNOLOGY SUMMARY

- 162,630 NET TECH EMPLOYMENT¹
- NET EMPLOYMENT AS A % OF OVERALL WORKFORCE 6.8%
- \$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

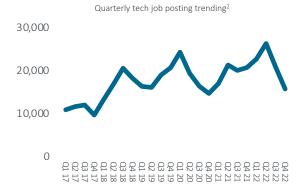


- 20th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

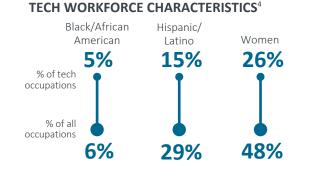
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



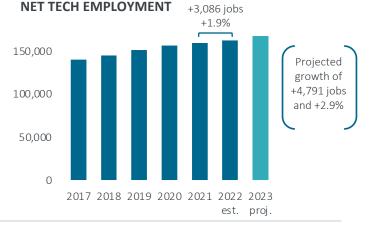
²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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



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2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023



Pittsburgh

Full MSA name: Pittsburgh, PA

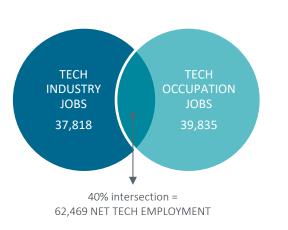
STATE OF TECHNOLOGY SUMMARY

- 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



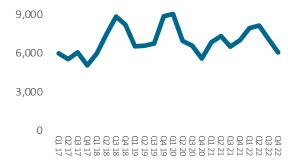
- 43rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

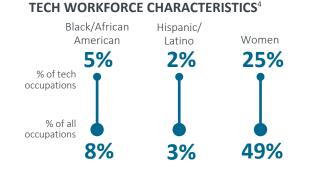


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

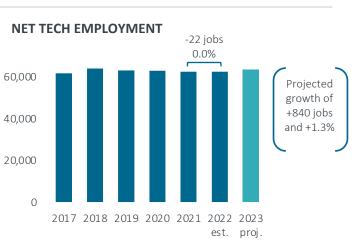
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



Portland

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

STATE OF TECHNOLOGY SUMMARY

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



- 29th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+3,071 jobs

+2.6%

est. proj

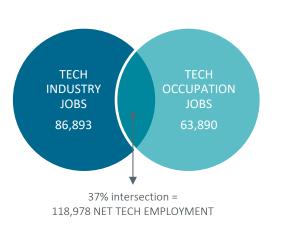
Projected

growth of

+3,047 jobs

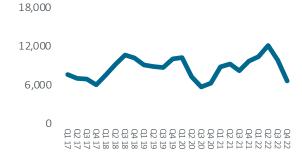
and +2.6%

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

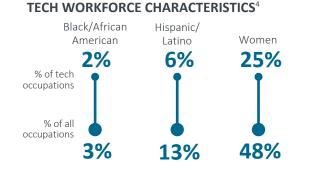


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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



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

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

105,000

70,000

35,000

0

2022	2023 % Change ³
23,248	3.6%
7,586	2.2%
7,063	2.4%
6,490	1.5%
2,934	3.2%
2,723	3.7%
	23,248 7,586 7,063 6,490 2,934

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023



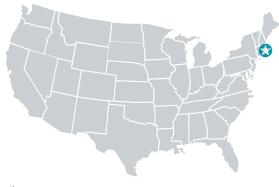
CompTIA

Providence

Full MSA name: Providence-Warwick, RI-MA

STATE OF TECHNOLOGY SUMMARY

- 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
- TECH BUSINESS ESTABLISHMENTS % CHANGE RANK 2nd
- 3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+381 jobs +1.2%

est. proj.

Projected

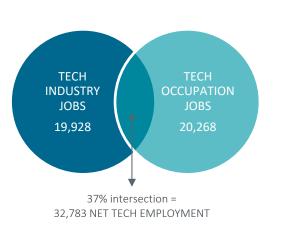
growth of

+651 jobs

and +2.0%

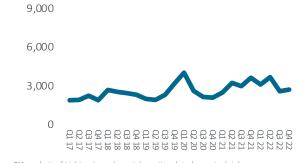
2023 %

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

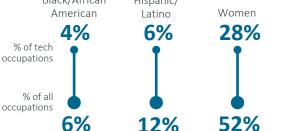
Quarterly tech job posting trending²



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



TECH WORKFORCE CHARACTERISTICS⁴



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

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

27.000

18,000

9,000

0

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023

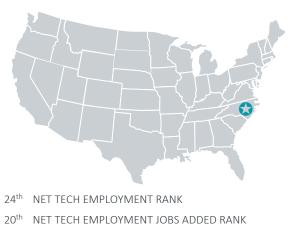


CompTIA

Full MSA name: Raleigh-Cary, NC

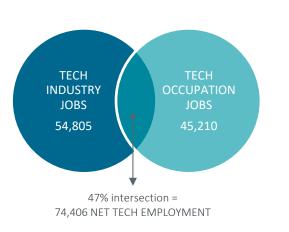
STATE OF TECHNOLOGY SUMMARY

- 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



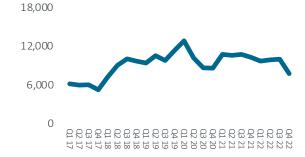
- 14th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

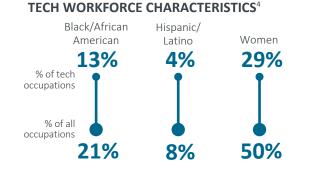


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



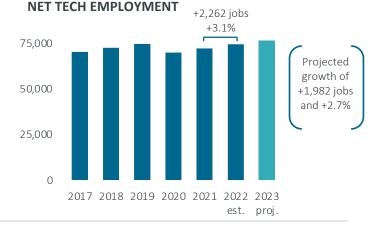
²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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

CompTIA.

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LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



Sacramento

Full MSA name: Sacramento-Roseville-Folsom, CA

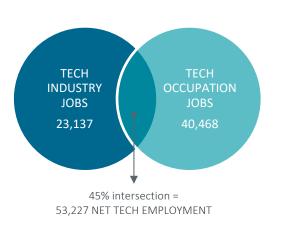
STATE OF TECHNOLOGY SUMMARY

- 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



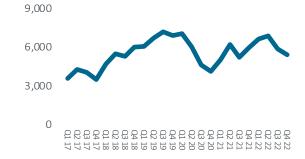
- 49th NET TECH EMPLOYMENT JOBS ADDED RANK
- 46th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

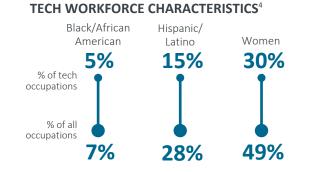


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

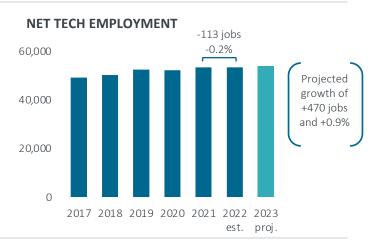
Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



CompTIA.

Salt Lake City

Full MSA name: Salt Lake City, UT

STATE OF TECHNOLOGY SUMMARY

- 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
- 3rd TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4th DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+2,672 jobs +4.1%

Projected

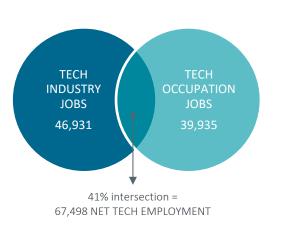
growth of

+3,054 jobs

and +4.5%

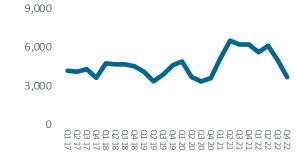
2023 %

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

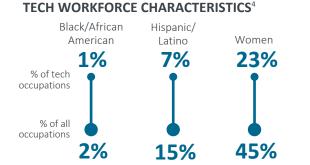


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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



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



2017 2018 2019 2020 2021 2022 2023 est. proj.

LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

60,000

40,000

20.000

0

	2022	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



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San Antonio

Full MSA name: San Antonio-New Braunfels, TX

STATE OF TECHNOLOGY SUMMARY

- 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



- 26th NET TECH EMPLOYMENT JOBS ADDED RANK
- 35th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

+1,351 jobs +2.7%

est. proj.

Projected

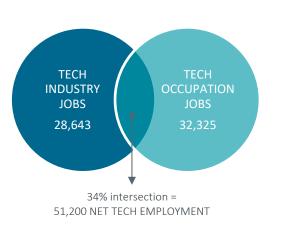
growth of

+1,648 jobs

and +3.2%

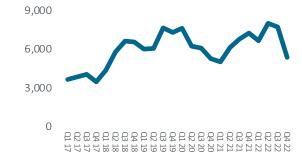
2023 %

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

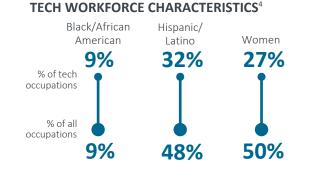


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



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



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



LEADING TECH OCCUPATIONS

NET TECH EMPLOYMENT

45,000

30,000

15,000

0

	2022	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%

2017 2018 2019 2020 2021 2022 2023

³Projected growth rate for 2023



San Diego

Full MSA name: San Diego-Chula Vista-Carlsbad, CA

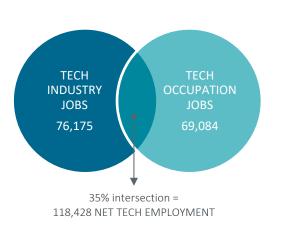
STATE OF TECHNOLOGY SUMMARY

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

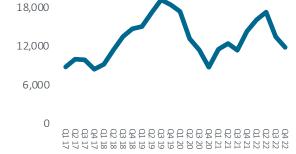


- 48th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- DIVERSITY INDEX QUARTILE [1st = top | see footnote] 1st

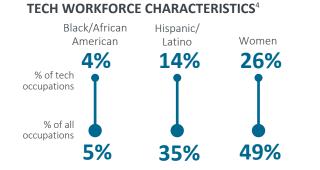
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²

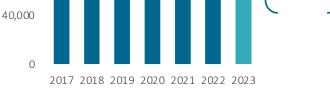


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





est. proj

Projected

growth of

2023 %

LEADING TECH OCCUPATIONS

	2022	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%

³Projected growth rate for 2023



CompTIA

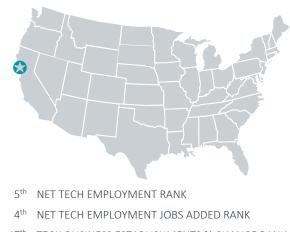
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San Francisco

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

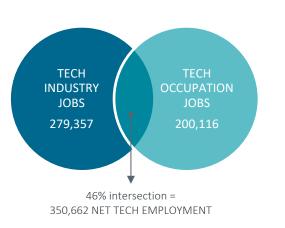
STATE OF TECHNOLOGY SUMMARY

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

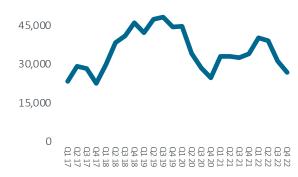


- 47th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

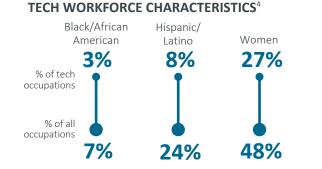
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS Quarterly tech job posting trending²



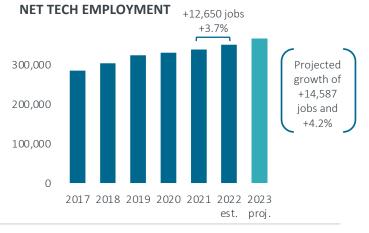
²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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

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2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	89,904	4.8%
Emerging Tech, IT Project Mgt. and Other	21,716	2.2%
Cybersecurity and Systems Engineers	20,562	4.2%
Network Engineers, Architects and Support	13,353	3.6%
IT Support Specialist and Repair Technicians	12,501	4.0%
Database, Data Science, Analytics and CS	11,252	4.9%

³Projected growth rate for 2023



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

STATE OF TECHNOLOGY SUMMARY

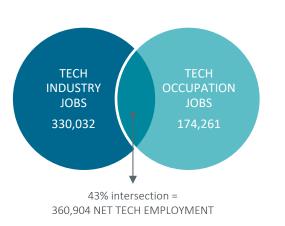
360,904 NET TECH EMPLOYMENT¹
31.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$221.8b ECONOMIC IMPACT [estimated direct impact of tech sector]
57.1% ECONOMIC IMPACT AS A % OF OVERALL
6,441 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
103,078 EMPLOYER JOB POSTINGS [2022 total for tech occupations]



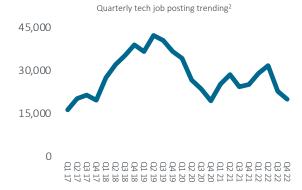


- 10th NET TECH EMPLOYMENT JOBS ADDED RANK
- 49th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

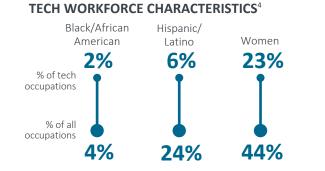
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

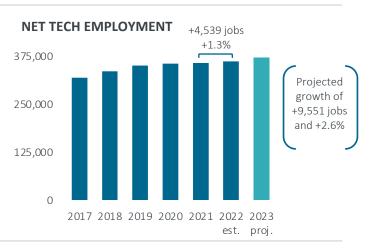


²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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





2023 %

LEADING TECH OCCUPATIONS

	2022	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%

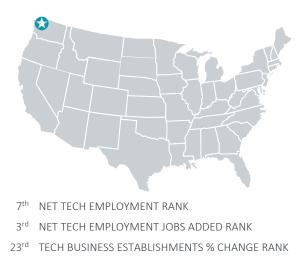
³Projected growth rate for 2023



Full MSA name: Seattle-Tacoma-Bellevue, WA

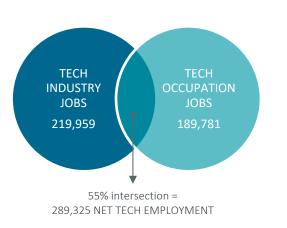
STATE OF TECHNOLOGY SUMMARY

- 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

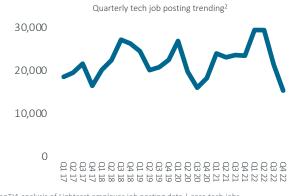


2nd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

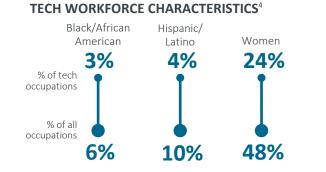
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



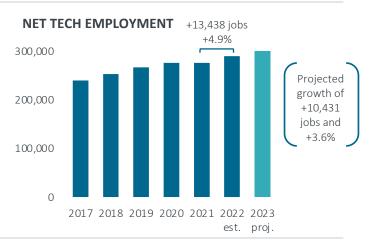
EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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

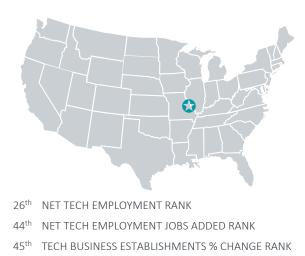


CompTIA.

Full MSA name: St. Louis, MO-IL

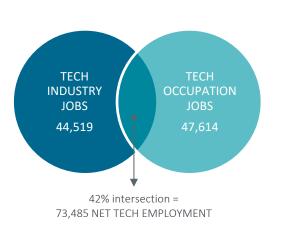
STATE OF TECHNOLOGY SUMMARY

- 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



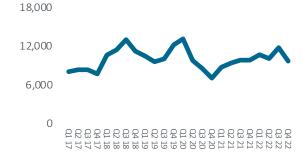
3rd DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

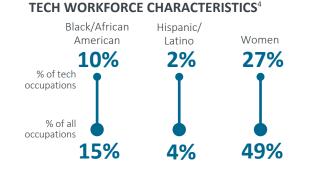


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



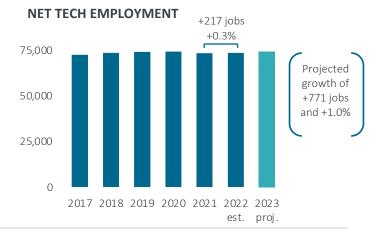
²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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



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LEADING TECH OCCUPATIONS

	2022	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%

2023 %

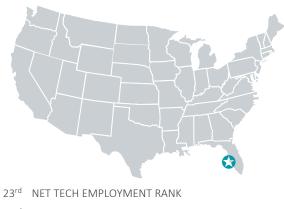
³Projected growth rate for 2023



Full MSA name: Tampa-St. Petersburg-Clearwater, FL

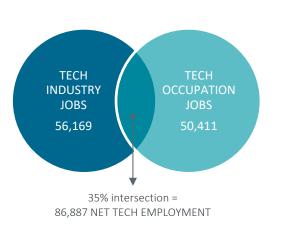
STATE OF TECHNOLOGY SUMMARY

- 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



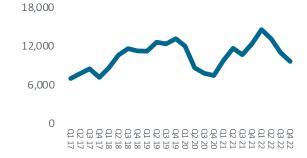
- 22nd NET TECH EMPLOYMENT JOBS ADDED RANK
- 21st TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 2^{nd} DIVERSITY INDEX QUARTILE [1st = top | see footnote]

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

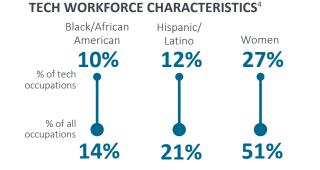


EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

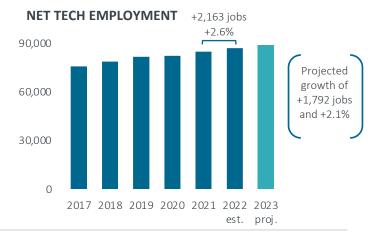
Quarterly tech job posting trending²



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



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



2023 %

LEADING TECH OCCUPATIONS

	2022	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

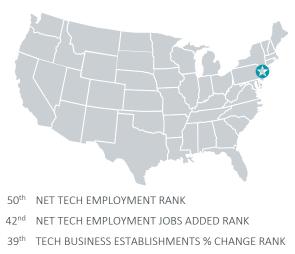


CompTIA.

Full MSA name: Trenton-Princeton, NJ

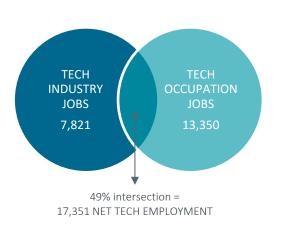
STATE OF TECHNOLOGY SUMMARY

- 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



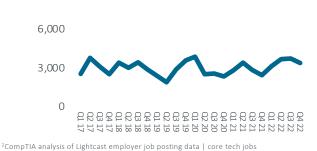
1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]

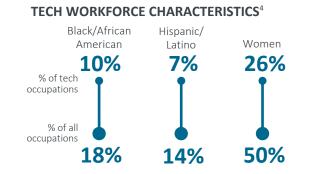
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | ¹Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Quarterly tech job posting trending²



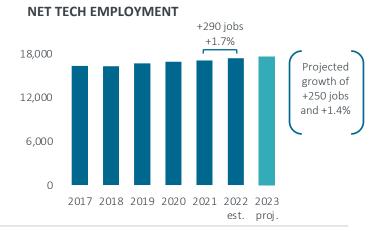


⁴Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics



9,000

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2023 %

LEADING TECH OCCUPATIONS

	2022	Change ³
Software, Programmers, Web and QA	4,881	2.4%
Network Engineers, Architects and Support	1,796	1.1%
IT Support Specialist and Repair Technicians	1,764	1.2%
Cybersecurity and Systems Engineers	1,709	2.5%
Emerging Tech, IT Project Mgt. and Other	764	1.5%
Database, Data Science, Analytics and CS	733	2.8%

³Projected growth rate for 2023



Washington D.C.

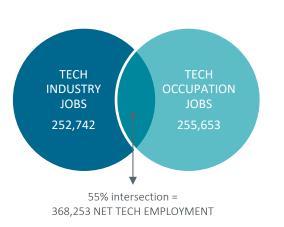
Full MSA name: Washington-Arlington-Alexandria, DC-VA-MD-WV

STATE OF TECHNOLOGY SUMMARY

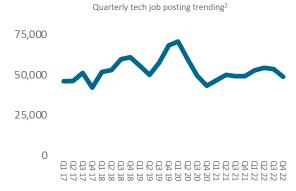
368,253	NET TECH EMPLOYMENT ¹
10.9%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$75.6b	ECONOMIC IMPACT [estimated direct impact of tech sector]
12.9%	ECONOMIC IMPACT AS A % OF OVERALL
20,189	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
208,808	EMPLOYER JOB POSTINGS [2022 total for tech occupations]
30.4%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



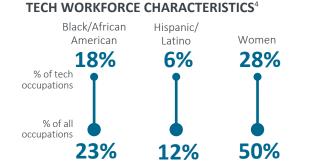
Sources: CompTIA analysis of Lightcast, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and others | 1Net of tech industry + tech occupation employment Note: backward revisions to data and classification changes by the BLS mean prior year editions of this report are not always directly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



EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



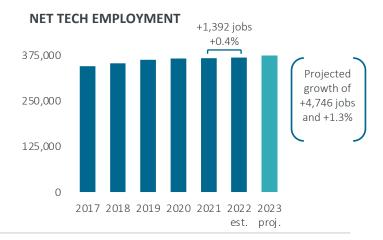
²CompTIA analysis of Lightcast employer job posting data | core tech jobs



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



27th TECH BUSINESS ESTABLISHMENTS % CHANGE RANK 1st DIVERSITY INDEX QUARTILE [1st = top | see footnote]



LEADING TECH OCCUPATIONS

	2022	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%

2023 %

³Projected growth rate for 2023



APPENDIX TABLES – A NET TECH EMPLOYMENT For an explanation of the net tech employment calculation, see page 5

	2017	2018	2019	2020	2021	<u>2022 est.</u>	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
lowa	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	<u>2018</u>	<u>2019</u>	2020	<u>2021</u>	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	274,144	284,390	298,341	305,987	315,337	329,347	342,027
	130,815	136,378	140,445			154,948	
Denver	130,815	130,378	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 San Antonio	55,164 44 163	57,281 45,462	60,254 47 354	61,634 48 108	64,826 49.849	67,498 51,200	70,552 52,848
	44,163 106,895	45,462 111,375	47,354	48,108	49,849		52,848 120,946
San Diego San Francisco	106,895 284,576	303,371	115,601 323,789	116,002 329,971	117,126 338,012	118,428 350,662	120,946 365,249
		005 000					
San Jose Seattle	318,460 239,195	335,236 252,618	350,059 266,424	355,058 275,603	356,365 275,887	360,904 289,325	370,455 299,756
St. Louis	72,440	73,435	73,961	74,214	73,268	73,485	74,257
Tampa	75,637	78,553	81,559	82,177	84,724	86,887	88,679
Trenton	16,330	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
	011,505	352,501	001,010	000,000	000,001	000,200	0,2,000



NET TECH EMPLOYMENT JOBS ADDED 2022 est. NET TECH EMPLOYMENT JOBS ADDED 2023 proj.

Rank	State	Employment	Rank	State	Jobs Added	Rank	State	Jobs Added
	United States	9,156,390		United States	+286,424		United States	+272,323
1.	California	1,487,864	1.	Texas	+45,331	1.	California	+41,834
2.	Texas	867,278	2.	California	+38,186	2.	Texas	+38,438
3.	New York	535,457	3.	Florida	+22,029	3.	Florida	+16,959
4.	Florida	484,593	4.	New York	+18,487	4.	New York	+13,709
5.	Virginia	358,713	5.	Washington	+17,962	5.	Washington	+13,494
6.	Washington	347,093	6.	Georgia	+10,728	6.	Georgia	+10,678
7.	Illinois	325,685	7.	Colorado	+10,174	7.	North Carolina	+9,722
8.	Massachusetts	318,631	8.	Pennsylvania	+9,918	8.	Colorado	+8,960
9.	Pennsylvania	300,447	9.	New Jersey	+8,563	9.	Pennsylvania	+8,298
10.	Georgia	294,133	10.	Illinois	+8,350	10.	, Massachusetts	+8,260
11.	North Carolina	293,284	11.	North Carolina	+7,851	11.	Virginia	+7,579
12.	New Jersey	271,312	12.	Ohio	+7,507	12.	New Jersey	+6,698
13.	, Ohio	270,462	13.	Tennessee	+7,228	13.	, Arizona	+6,677
14.	Colorado	248,508	14.	Michigan	+5,288	14.	Illinois	+6,468
15.	Maryland	222,031	15.	Utah	+5,130	15.	Utah	+6,103
16.	, Michigan	202,190	16.	Arizona	+5,077	16.	Tennessee	+5,962
17.	Arizona	201,183	17.	Massachusetts	+4,976	17.	Ohio	+5,776
18.	Minnesota	187,836	18.	Virginia	+4,898	18.	Maryland	+5,109
19.	Missouri	153,419	19.	Oregon	+4,047	19.	Michigan	+4,505
20.	Wisconsin	140,727	20.	South Carolina	+3,853	20.	Missouri	+4,252
21.	Oregon	139,350	21.	Maryland	+3,610	21.	Oregon	+3,866
22.	Tennessee	123,909	22.	Indiana	+3,525	22.	South Carolina	+3,785
23.	Utah	123,450	23.	Nevada	+2,942	23.	Indiana	+3,493
24.	Indiana	118,872	24.	Minnesota	+2,707	24.	Wisconsin	+2,619
25.	Connecticut	95,324	25.	Alabama	+2,430	25.	Minnesota	+2,542
26.	Alabama	87,524	26.	Connecticut	+2,299	26.	Nevada	+2,314
27.	South Carolina	86,446	27.	Missouri	+1,968	27.	Alabama	+2,051
28.	District of Columbia	70,554	28.	New Hampshire	+1,953	28.	Louisiana	+1,751
29.	lowa	65,906	29.	Louisiana	+1,851	29.	New Hampshire	+1,564
30.	Kansas	65,245	30.	Wisconsin	+1,801	30.	District of Columbia	+1,525
31.	Kentucky	64,719	31.	Kansas	+1,786	31.	Kentucky	+1,476
32.	, Oklahoma	57,807	32.	Idaho	+1,503	32.	, Kansas	+1,463
33.	New Hampshire	56,748	33.	Kentucky	+1,317	33.	lowa	+1,442
34.	Nebraska	52,556	34.	Arkansas	+1,099	34.	Idaho	+1,415
35.	Nevada	48,595	35.	lowa	+1,073	35.	Nebraska	+1,276
36.	Louisiana	48,186	36.	Oklahoma	+1,060	36.	Oklahoma	+1,268
37.	Idaho	39,897	37.	Maine	+1,060	37.	Mississippi	+1,211
38.	Arkansas	39,896	38.	Mississippi	+1,039	38.	Arkansas	+1,128
39.	New Mexico	35,043	39.	West Virginia	+791	39.	Connecticut	+1,051
40.	Mississippi	28,609	40.	New Mexico	+710	40.	Maine	+877
41.	Rhode Island	27,806	41.	Nebraska	+663	41.	Rhode Island	+785
42.	Delaware	24,792	42.	Montana	+509	42.	West Virginia	+707
43.	Maine	24,769	43.	Hawaii	+471	43.	South Dakota	+564
44.	West Virginia	20,506	44.	South Dakota	+469	44.	Montana	+562
45.	Hawaii	20,410	45.	Delaware	+446	45.	New Mexico	+487
46.	Montana	16,971	46.	District of Columbia	+421	46.	Hawaii	+351
47.	Vermont	16,687	47.	Rhode Island	+414	47.	Wyoming	+325
48.	South Dakota	15,855	48.	North Dakota	+324	48.	North Dakota	+275
49.	North Dakota	13,272	49.	Wyoming	+301	49.	Delaware	+255
50.	Alaska	9,525	50.	Vermont	+294	50.	Vermont	+253
50.								



NET TECH EMPLOYMENT JOBS ADDED 2022 est. NET TECH EMPLOYMENT JOBS ADDED 2023 proj.

Rank	<u>State</u>	Employment	Rank	State	<u>% Change</u>	Rank	<u>State</u>	<u>% Change</u>
	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. 29.	District of Columbia	70,554	28. 29.	North Carolina Michigan	+2.8% +2.7%	28. 29.	Massachusetts New York	+2.6% +2.6%
29. 30.	lowa	65,906	30.	California	+2.7%	30.		+2.5%
30. 31.	Kansas Kentucky	65,245 64,719	31.	Illinois	+2.6%	31.	New Jersey Nebraska	+2.3%
32.	Oklahoma	57,807	32.	Arizona	+2.6%	32.	Alabama	+2.4%
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 JOBS ADDED 2022 est. NET TECH EMPLOYMENT JOBS ADDED 2023 proj.

Rank	State	Employment	<u>Rank</u>	State	Jobs Added	Rank	State	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
4.	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
6.	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
8.	Boston	272,572	8.	Miami	+5,166	8.	Atlanta	+6,005
9.	Chicago	245,390	9.	Houston	+5,090	9.	Boston	+5,554
10.	Atlanta	220,242	10.	San Jose	+4,539	10.	Phoenix	+4,791
11.	Austin	173,629	11.	Atlanta	+4,514	11.	Washington DC	+4,746
12.	Phoenix	162,630	12.	Chicago	+3,468	12.	Los Angeles	+4,349
13.	Philadelphia	155,592	13.	Nashville	+3,134	13.	Miami	+3,515
14.	Denver	154,948	14.	Phoenix	+3,086	14.	Houston	+3,369
15.	Minneapolis	150,516	15.	Portland	+3,071	15.	Salt Lake City	+3,054
16.	Houston	150,145	16.	Salt Lake City	+2,672	16.	Portland	+3,047
17.	Miami	130,516	17.	Charlotte	+2,596	17.	Charlotte	+2,724
18.	Portland	118,978	18.	Boston	+2,420	18.	San Diego	+2,518
19.	San Diego	118,428	19.	Orlando	+2,273	19.	Nashville	+2,381
20.	Baltimore	103,799	20.	Raleigh	+2,262	20.	Chicago	+2,128
21.	Detroit	103,774	21.	Philadelphia	+2,255	21.	Raleigh	+1,982
22.	Charlotte	88,137	22.	Tampa	+2,163	22.	Baltimore	+1,953
23.	Tampa	86,887	23.	Las Vegas	+1,938	23.	Tampa	+1,792
24.	Raleigh	74,406	24.	Cleveland	+1,719	24.	Orlando	+1,735
25.	Kansas City	74,404	25.	Washington DC	+1,392	25.	San Antonio	+1,648
26.	St. Louis	73,485	26.	San Antonio	+1,351	26.	Indianapolis	+1,631
27.	Salt Lake City	67,498	27.	San Diego	+1,302	27.	Kansas City	+1,559
28.	Orlando	67,061	28.	Indianapolis	+1,186	28.	Las Vegas	+1,445
29.	Pittsburgh	62,469	29.	Minneapolis	+1,076	29.	Philadelphia	+1,181
30.	Indianapolis	57,055	30.	Detroit	+1,060	30.	Minneapolis	+1,039
31.	Cleveland	55,193	31.	Charleston	+880	31.	Cincinnati	+929
32.	Cincinnati	53,453	32.	Colorado Springs	+827	32.	Cleveland	+908
33.	Sacramento	53,227	33.	Cincinnati	+815	33.	Pittsburgh	+840
34.	Nashville	52,768	34.	New Orleans	+717	34.	St. Louis	+771
35.	San Antonio	51,200	35.	Buffalo	+679	35.	Charleston	+754
36.	Milwaukee	46,124	36.	Oklahoma City	+667	36.	Providence	+651
37.	Hartford	34,697	37.	Boise	+627	37.	New Orleans	+614
38.	Providence	32,783	38.	Memphis	+553	38.	Boise	+538
39.	Las Vegas	32,389	39.	Hartford	+463	39.	Memphis	+532
40.	Omaha	30,584	40.	Albuguergue	+386	40.	Colorado Springs	+511
41.	Huntsville	27,530	41.	Providence	+381	41.	Huntsville	+492
42.	Colorado Springs	26,312	42.	Trenton	+290	42.	Detroit	+483
43.	Oklahoma City	25,920	43.	Milwaukee	+236	43.	Sacramento	+470
44.	Boise	25,178	44.	St. Louis	+217	44.	Des Moines	+434
45.	Des Moines	24,378	45.	Kansas City	+137	45.	Omaha	+379
46.	Buffalo	23,038	46.	, Huntsville	+74	46.	Oklahoma City	+327
47.	Albuquerque	22,298	47.	Des Moines	+64	47.	Hartford	+321
48.	Memphis	20,762	48.	Pittsburgh	-22	48.	Buffalo	+316
49.	Charleston	18,807	49.	Sacramento	-113	49.	Trenton	+250
50.	Trenton	17,351	50.	Omaha	-312	50.	Albuquerque	+101
51.	New Orleans	16,805	51.	Baltimore	-389	51.	Milwaukee	-111



NET TECH EMPLOYMENT JOBS ADDED 2022 est. NET TECH EMPLOYMENT JOBS ADDED 2023 proj.

Rank	State	Employment	Rank	State	<u>% Change</u>	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%
30. 31.	Cleveland	55,193	31.	Trenton	+1.7%	31.	Baltimore	+1.9%
32.	Cieveland Cincinnati		32.		+1.7%	32.	Huntsville	+1.9%
32. 33.		53,453	32.	Cincinnati	+1.5%			+1.8%
	Sacramento	53,227		Philadelphia		33.	Des Moines	
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

TECH WORKFORCE CHARACTERISTICS BY STATE

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 <u>Alaska Native</u>	Asian	Black or African <u>American</u>	Hispanic <u>or Latino</u>	Native Hawaiian or Other Pacific <u>Islander</u>	Two or More <u>Races</u>	White	Diversity Index <u>Quartile</u>
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
	1,105					842		
Arkansas California	115	2,614 378,528	2,439 28,512	1,110 101,843	30 2,128	842 23,859	19,798 303,986	3 rd quartile 1 st quartile
cultornia		576,526	20,312		2,120	23,035	303,500	
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	1 st quartile
District of Columbia	48	8,931	14,792	3,546	45	2,152	25,785	1 st 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	1 st quartile
Hawaii	<10	8,227	259	616	404	1,780	2,663	1 st 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
Wallie	24	092	209	2.54	<10	220	14,114	4 quai tile
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	1 st 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	1 st 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	100	10.010	10 0 47	4 4 7 7	00	2 455	141 500	Ord 11
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 Rhode Island	117 17	27,787 2,345	11,405 679	6,156 1,159	61 <10	3,642 401	141,151 12,982	3 rd quartile 3 rd quartile
South Carolina	76	3,353	8,990	1,628	16	1,117	36,578	2 nd quartile
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
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	1 st quartile 4 th quartile
								·
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	1 st 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



TECH WORKFORCE CHARACTERISTICS BY STATE

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	9%	13%	17%	35%	26%	48%
Utah	1%	2%	7%	14%	22%	46%
Vermont	1%	2%	2%	3%	28%	51%
Virginia	13%	20%	5%	9%	27%	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%
Sources: Lightcast U.S. Bureau of Labor Statistics	CompTIA					



TECH WORKFORCE CHARACTERISTICS BY METRO

Data covers core information technology occupations across primary Bureau of Labor Statistics race and ethnicity groups.

	American Indian or <u>Alaska Native</u>	Asian	Black or African <u>American</u>	Hispanic <u>or Latino</u>	Native Hawaiian or Other Pacific <u>Islander</u>	Two or More <u>Races</u>	White	Diversity Index <u>Quartile</u>
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	1 st quartile
Austin	178	19,910	5,947	13,307	105	2,194	48,295	1 st 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	441	52,598	19,910	22,073	199	3,067	85,669	1 st quartile
Denver	230	10,601	2,973	8,401	99	2,312	72,077	3 rd quartile
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	1 st 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	1 st quartile
Los Angeles	312	82,728	9,400	37,419	461	7,275	86,466	1 st 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	1 st 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	1 st 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	1 st 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	1 st quartile
San Diego	125	24,093	2,637	10,006	189	2,117	29,917	1 st 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	1 st 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							



TECH WORKFORCE CHARACTERISTICS BY METRO

Data covers core information technology occupations across primary Bureau of Labor Statistics race and ethnicity groups.

	Black or Africa	an American	Hispar	nic or Latino		Women
	% of Tech	% of Overall	% of Tech	% of Overall	% of Tech	% of Overall
	Workforce	Workforce	Workforce	Workforce	Workforce	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 CompTIA	l.					



TECH WORKFORCE CHARACTERISTICS BY OCCUPATION

	Black or Afric	an American	Hispar	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%



TECH WORKFORCE CHARACTERISTICS BY OCCUPATION

	19-34 Age Range		<u>35-54</u>	Age Range	55+ 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%



TECH WORKFORCE CHARACTERISTICS BY INDUSTRY

	Black or African American		Hispar	nic or Latino	Wome	
	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%
Georgia	47,774	24%	11,397	6%	74,065	37%
Hawaii	359	3%	917	9%	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%
lowa	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	1,389	4%	1,585	5%	11,575	36%
Nevada	2,088	7%	4,512	15%	9,717	33%
New Hampshire	608	1%	1,683	4%	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	32%
West Virginia	429	4%	224	2%	3,585	31%
Wisconsin	3,310	4%	3,655	4%	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 <u>Separations</u>	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%
Tota	l 5,780,988	6,771,641	2,085,304	36%	7,982,964	399,148	7%



APPENDIX TABLES – D TECH WAGES PERCENTILES

TECH WAGE PERCENTILES BY STATE

	10 th Percentile	25 th Percentile	50 th (median) <u>Percentile</u>	75 th Percentile	90 th Percentile	% Greater than Overall <u>Median Wage</u>
United States	\$51,122	\$70,221	\$104,406	\$144,415	\$184,737	130%
Alabama	\$44,140	\$61,587	\$89,326	\$122,187	\$156,592	130%
Alaska	\$54,177	\$69,235	\$92,647	\$117,437	\$147,121	80%
Arizona	\$47,405	\$66,920	\$96,485	\$127,571	\$164,241	119%
Arkansas	\$37,230	\$49,081	\$75,741	\$103,567	\$135,980	105%
California	\$60,905	\$90,291	\$134,421	\$185,264	\$238,173	171%
Colorado	¢50,000	\$80,958	¢111.02C	6140 7F0	\$179,567	122%
	\$59,609	. ,	\$111,936	\$148,758		
Connecticut	\$56,323	\$76,686	\$103,759	\$134,370	\$167,105	101%
Delaware	\$57,047	\$78,763	\$111,146	\$141,647	\$181,691	140%
District of Columbia	\$72,773	\$88,958	\$121,717	\$156,864	\$180,806	47%
Florida	\$43,532	\$59,940	\$89,550	\$124,099	\$158,071	119%
Georgia	\$47,797	\$66,940	\$102,586	\$133,792	\$164,980	143%
Hawaii	\$48,717	\$63,857	\$89,178	\$113,485	\$141,403	85%
Idaho	\$35,837	\$52,770	\$77,379	\$110,292	\$142,020	93%
Illinois	\$50,778	\$67,733	\$99,039	\$133,130	\$166,351	111%
Indiana	\$40,448	\$54,580	\$77,815	\$106,658	\$136,502	86%
	647045	661 225	Ć05 600	6112 565	¢120,100	0.0%
lowa	\$47,045	\$61,325	\$85,609	\$113,565	\$139,180	99%
Kansas	\$44,802	\$57,821	\$82,751	\$113,252	\$142,571	99%
Kentucky	\$41,615	\$54,197	\$75,326	\$103,436	\$132,535	88%
Louisiana	\$37,476	\$52,699	\$73,416	\$101,659	\$130,840	87%
Maine	\$44,738	\$58,637	\$78,453	\$107,867	\$137,856	76%
Maryland	\$60,381	\$83,420	\$116,172	\$151,280	\$184,548	126%
Massachusetts	\$63,670	\$85,983	\$117,237	\$156,489	\$184,078	108%
Michigan	\$46,669	\$63,893	\$90,076	\$120,650	\$142,419	105%
Minnesota	\$54,418	\$73,065	\$100,506	\$129,002	\$158,270	103%
Mississippi	\$36,825	\$49,997	\$71,084	\$96,784	\$129,235	99%
	. ,			, ,	, ,	
Missouri	\$44,307	\$58,221	\$86,898	\$118,915	\$145,571	109%
Montana	\$40,142	\$54,710	\$77,410	\$97,622	\$129,651	88%
Nebraska	\$46,729	\$61,979	\$85,697	\$113,088	\$136,721	100%
Nevada	\$40,696	\$51,849	\$78,759	\$109,942	\$147,073	92%
New Hampshire	\$52,213	\$73,273	\$103,093	\$136,982	\$167,817	116%
New Jersey	\$60,049	\$81,975	\$117,956	\$158,389	\$186,328	130%
New Mexico	\$42,769	\$60,573	\$87,424	\$124,606	\$160,306	121%
New York	\$55,579	\$77,177	\$113,100	\$160,398	\$206,319	116%
North Carolina	\$49,385	\$70,862	\$105,235	\$136,776	\$164,733	154%
North Dakota	\$42,376	\$54,489	\$74,985	\$96,918	\$123,632	60%
	φ 12 <i>)</i> 07 0	<i>40 1) 100</i>	<i>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</i>	<i>49</i> 0)9 10	<i>Q120,002</i>	00,0
Ohio	\$44,883	\$62,547	\$90,164	\$119,962	\$146,735	107%
Oklahoma	\$40,441	\$54,144	\$79,063	\$109,228	\$142,828	102%
Oregon	\$49,278	\$70,523	\$103,974	\$134,273	\$169,145	121%
Pennsylvania	\$48,194	\$64,296	\$91,062	\$124,047	\$155,723	102%
Rhode Island	\$54,678	\$74,174	\$101,499	\$136,409	\$193,528	105%
South Carolina	\$44,550	\$58,899	\$84,269	\$113,979	\$145,867	116%
South Dakota	\$44,550 \$43,286	\$58,899 \$57,338	\$84,269 \$73,419	\$113,979 \$101,332	\$145,867 \$135,241	84%
Tennessee	\$41,709	\$55,454 \$C2,751	\$81,544 ¢or ero	\$114,479 \$122,040	\$147,905	102%
Texas	\$45,817	\$63,751	\$95,850	\$133,040	\$167,323	126%
Utah	\$41,821	\$59,672	\$91,582	\$126,276	\$157,785	110%
Vermont	\$47,971	\$62,125	\$82,253	\$112,125	\$156,069	77%
Virginia	\$60,341	\$82,220	\$116,059	\$153,780	\$190,319	142%
Washington	\$64,566	\$88,015	\$129,561	\$167,385	\$201,508	140%
West Virginia	\$39,303	\$52,343	\$72,656	\$104,117	\$137,316	91%
Wisconsin	\$48,493	\$61,288	\$86,493	\$114,654	\$140,987	93%
Wyoming	\$42,425	\$52,740	\$74,681	\$103,162	\$136,323	68%
Sources: Lightcast U.S. Bureau of L			- *			

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

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APPENDIX D.1

TECH WAGE PERCENTILES BY METRO

			Foth			2 C 1 1 1
	10 th	25 th	50 th (median)	75 th	90 th	% Greater than Overall
	Percentile	Percentile	Percentile	Percentile	Percentile	Median Wage
United States	\$51,122	\$70,221	\$104,406	\$144,415	\$184,737	130%
Albuquerque	\$40,970	\$60,824	\$88,245	\$122,145	\$157,371	115%
Atlanta	\$51,007	\$74,004	\$107,617	\$139,315	\$169,762	135%
Austin	\$49,903	\$66,292	\$98,880	\$138,230	\$177,756	109%
Baltimore	\$59,755	\$83,466	\$116,689	\$152,021	\$190,822	129%
Boise	\$39,134	\$56,321	\$81,265	\$112,182	\$141,692	97%
Desten	ĆCE EDD	600 440	¢120.000	\$100 7F4	¢101 29C	100%
Boston Buffalo	\$65,533 \$48,702	\$88,443 \$62,568	\$120,998 \$86,749	\$160,754	\$191,386	106% 89%
Charleston		\$63,568 \$68,241		\$120,103	\$153,237	
Charlotte	\$50,842 \$54,099	\$68,241	\$94,370	\$121,606	\$151,001	123%
Chicago	\$51,515	\$77,515 \$70,780	\$112,279 \$103,164	\$143,662 \$137,945	\$172,987 \$171,000	151% 112%
Chicago	\$31,313	370,780	Ş105,104	ŞIS7,943	\$171,000	11270
Cincinnati	\$43,997	\$61,758	\$89,814	\$121,323	\$149,625	100%
Cleveland	\$46,988	\$65,831	\$93,104	\$119,734	\$150,773	103%
Colorado Springs	\$59,305	\$79,519	\$108,642	\$144,641	\$175,447	133%
Dallas	\$49,929	\$70,491	\$104,827	\$138,135	\$171,038	131%
Denver	\$60,755	\$82,132	\$113,279	\$148,226	\$178,417	112%
Des Moines	\$52,029	\$68,792	\$94,494	\$120,139	\$143,092	99%
Detroit	\$51,251	\$72,633	\$96,755	\$128,470	\$145,857	105%
Hartford	\$53,227	\$71,956	\$96,134	\$124,237	\$153,974	88%
Houston	\$45,291	\$62,794	\$95,032	\$135,529	\$171,185	113%
Huntsville	\$58,685	\$76,930	\$105,942	\$138,812	\$172,243	126%
Indianapolis	\$43,694	\$59,276	\$84,824	\$115,198	\$143,164	93%
Kansas City	\$46,474	\$59,276 \$60,654	\$87,861	\$113,198 \$119,085	\$149,129	94%
Las Vegas	\$39,212	\$51,127	\$78,683	\$109,016	\$143,065	99%
Los Angeles	\$53,860	\$74,468	\$110,660	\$152,891	\$196,932	129%
Memphis	\$41,240	\$54,734	\$81,376	\$112,718	\$147,567	99%
Miami	\$41,773	\$57,681	\$88,796	\$125,502	\$161,277	110%
Milwaukee	\$50,394	\$63,822	\$90,478	\$121,435	\$143,456	96%
Minneapolis	\$56,674	\$76,382	\$104,190	\$132,002	\$163,150	100%
Nashville	\$43,215	\$58,423	\$85,404	\$121,341	\$151,290	95%
New Orleans	\$38,501	\$54,988	\$77,947	\$108,369	\$137,636	90%
New York City	\$61,522	\$86,143	\$125,004	\$172,737	\$219,763	125%
Oklahoma City	\$41,974	\$57,400	\$80,652	\$109,278	\$144,127	95%
Omaha	\$48,461	\$68,434	\$89,361	\$117,041	\$139,578	97%
Orlando	\$44,925	\$61,791	\$90,944	\$125,357	\$159,645	130%
Philadelphia	\$53,298	\$72,291	\$102,388	\$137,130	\$172,902	110%
Phoenix	\$48,224	\$67,242	\$99,441	\$129,161	\$166,030	119%
Pittsburgh	\$48,477	\$64,732	\$89,271	\$120,681	\$150,244	97%
Portland	\$51,209	\$75,748	\$111,128	\$139,509	\$174,017	117%
Providence	\$52,616	\$72,509	\$99,430	\$134,322	\$178,554	109%
Raleigh	\$56,561	\$76,122	\$111,013	\$145,305	\$173,850	143%
Sacramonto	\$56,419	\$77,703	\$105,566	\$133,695	\$171,587	1000/
Sacramento Salt Lake City	\$42,527	\$77,703 \$62,562	\$105,566 \$94,336	\$133,695 \$132,196	\$162,001	108%
San Antonio	\$42,527 \$44,683	\$62,562 \$61,031	\$94,336 \$89,683	\$132,196 \$121,447	\$149,780	102% 121%
San Diego	\$44,683 \$59,748	\$81,031 \$84,647	\$89,683 \$120,182	\$121,447 \$159,749	\$149,780 \$193,834	142%
San Francisco	\$75,240	\$108,434	\$150,646	\$199,617	\$247,250	134%
San Josa	6100 727	¢120.007	¢101 100	6222.200	6220 764	1 4 407
San Jose Seattle	\$100,737 \$68,210	\$138,807 \$94,212	\$181,129 \$137,056	\$232,280 \$173,447	\$339,764 \$206,906	144%
St. Louis	\$68,210 \$46,497	\$94,212 \$62,468	\$137,056 \$91,614		\$206,906 \$150,949	125% 103%
Tampa	\$48,497 \$43,818	\$62,468 \$62,011	\$91,614 \$92,596	\$123,401 \$123,770	\$150,949 \$154,232	103% 120%
Trenton	\$43,818	\$80,818	\$92,590 \$117,053	\$125,770 \$146,591	\$134,232	106%
Washington DC	\$68,833	\$80,818 \$90,630	\$117,033 \$125,519	\$140,391 \$163,285	\$197,822	98%
Sources: Lightcast U.S. Bureau of La	, ,	<i>430,030</i>	Υ <u>-</u>	÷100,200	¥10,,022	5670

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APPENDIX D.2

APPENDIX TABLES – E INDUSTRY SECTORS

TECH INDUSTRY SECTOR SUMMARY BY STATE

Prior 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%
Camornia	505,515	230,002	112,403	422,430	1,000,407	5.070
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%
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	43,087	18,415	9,583	46,535	117,620	1.2%
Mississippi	2,167	6,353	519	8,611	17,649	5.0%
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	6,904	16,603	4,490	26,293	54,290	5.0%
South Dakota	2,220	2,980	147	4,186	9,532	4.5%
Tennessee	6,599	19,958	10,185	35,893	72,635	5.6%
Texas	98,444	141,293	34,898	327,313	601,947	4.7%
Utah	13,884	16,433	16,773	41,266	88,356	5.1%
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 INDUSTRY SECTOR SUMMARY BY METRO

	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%
Albuquerque	4.620	2 444	311	E 010	12 507	-0.1%
Albuquerque Atlanta	4,620 8,420	3,444 49,808	20,548	5,212 74,592	13,587 153,368	-0.1%
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 Buffalo	47,606 4,444	30,230 2,817	36,265 825	87,733 7,026	201,833	1.6% 1.8%
Charleston	4,444 428	3,253	1,592	6,687	15,112 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	3,861	6,468	1,352	24,104	35,785	3.3%
Kansas City	11,147	10,129	1,950	29,790	53,016	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%
Miami	6.604	24 626	7,007	49.001	07 150	2.8%
Milwaukee	6,604 7,985	24,626 7,512	1,430	48,921 11,513	87,158 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	100 450	CC 410	24 720	00 405	220 022	2 70/
San Jose Seattle	130,450 11,809	66,419 60,658	34,728 76,528	98,435 70,964	330,032 219,959	2.7% 3.9%
St. Louis	3,623	15,598	2,963	22,335	44,519	3.9% 1.1%
Tampa	5,623 10,694	15,598	2,963 4,807	25,459	44,519 56,169	2.0%
Trenton	875	1,590	4,807 816	4,540	7,821	0.2%
Washington DC	12,147	39,099	9,063	192,433	252,742	1.1%
		55,655	5,005	102,100		1.1/0



METHODLOGY

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: <u>https://www.bls.gov/opub/reports/race-and-ethnicity/2019/home.htm</u>. 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.

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TECH INDUSTRY AND WORKFORCE CLASSIFICATION

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, 334613, 334614

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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