



# State of the Tech Workforce

Nationwide | State | Metro Area

Tech Hiring Trends | Wages | Workforce Characteristics

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## STATE OF THE TECH WORKFORCE | CYBERSTATES 2022

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The Computing Technology Industry Association (CompTIA)

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State of the Tech Workforce can be accessed online at [Cyberstates.org](https://cyberstates.org).

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# ABOUT

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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](http://www.cyberstates.org).

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

## NOTE: INDUSTRY DEFINITION CHANGE

In response to user feedback and organizational needs, CompTIA adjusted the industry and occupation definitions this year to focus on a more narrow subset of core information technology categories. The data in the 2022 release will not be directly comparable to the prior year releases, although portions of the prior definition data can be found in the Appendix.

CompTIA's base of IT certification holders spans 232 countries



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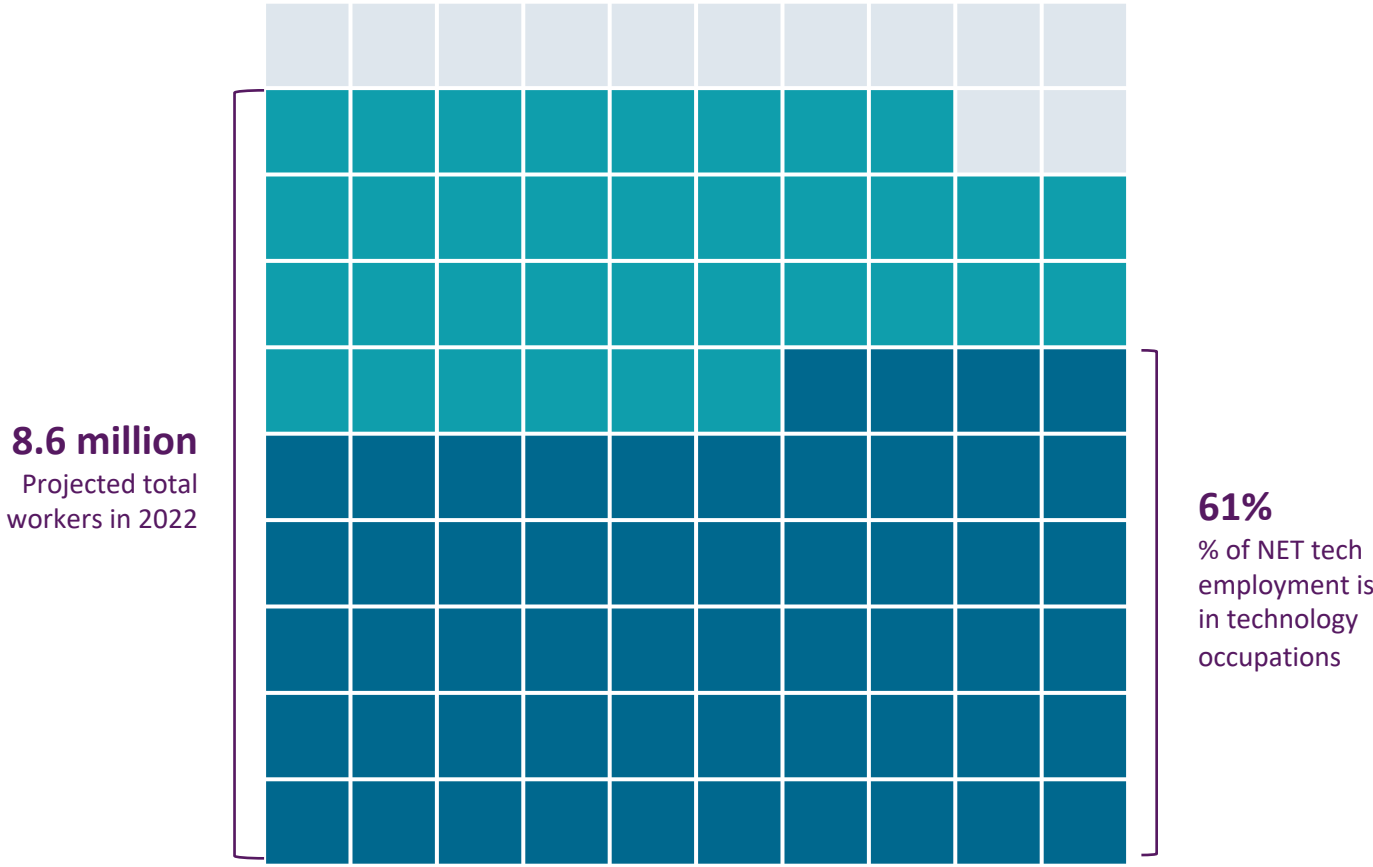
# DEFINING NET TECH EMPLOYMENT

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 scientist, and related roles. Many of these professionals work for technology companies (41 percent), but many others are employed by organizations across every industry sector in the U.S. economy (59 percent).

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 percent 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: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting

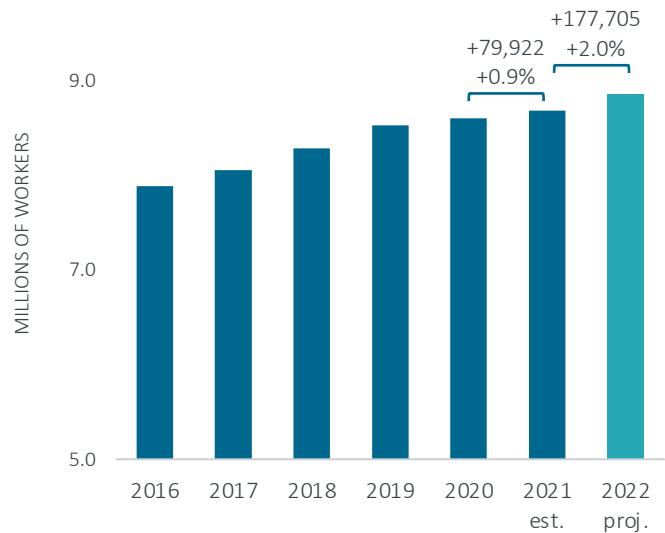
# YEAR IN REVIEW

## KEY POINTS

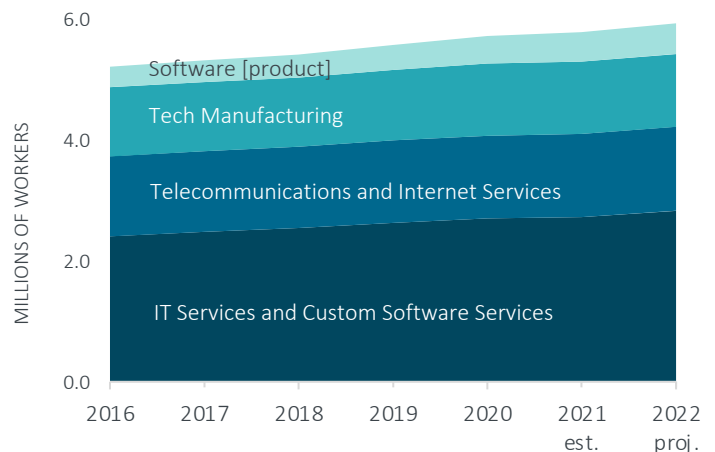
- After two years the global pandemic continues to be a drag on the U.S. economy and labor market. While the national unemployment edges down to near pre-pandemic levels, many workers voluntarily or involuntarily remain on the sidelines. See CompTIA's *Workforce and Learning Trends* for a discussion of the "Great Resignation" and its implication for the tech workforce.
- The tech sector and the broader base of technology workers employed across the economy experienced several bumps during this turbulent period, 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.
- These positives, however, were at times offset by reductions or postponements in spending and hiring of tech workers, especially in the hardest hit industry sectors of transportation, hospitality, entertainment and related.
- Net tech employment in the United States – as described on the previous page, reached an estimated 8,679,198 workers in 2021, an increase of nearly 1% year-over-year or approximately 80,000 additional workers employed in technology.
- At the time of writing, tech employment was off to a strong start during the first two months of 2022. If the momentum continues and the U.S. economy returns to a degree of normalcy, net tech employment could reach its projected target of 8,856,902, which translates to 177,705 net new workers added or +2.0% growth.
- Among the components of net tech employment, the tech sector side of the equation is projected to grow 2.4% in the year ahead, with the occupation side across the economy is projected to grow at an identical rate (2.4%). Tech occupation employment within the tech industry is projected to grow at the fastest rate: 3.5% vs. tech occupation employment across the economy 1.4%.
- Top projected growth occupations for 2022:

4.3%	Data Scientists
4.0%	Cybersecurity
3.9%	Software Developers and Software QA
3.5%	Computer and Information Research Scientists
2.6%	Web Developers and Digital Interface Designers
2.1%	Emerging Tech, IT Project Mgt. and Other
1.7%	IT Support Specialists

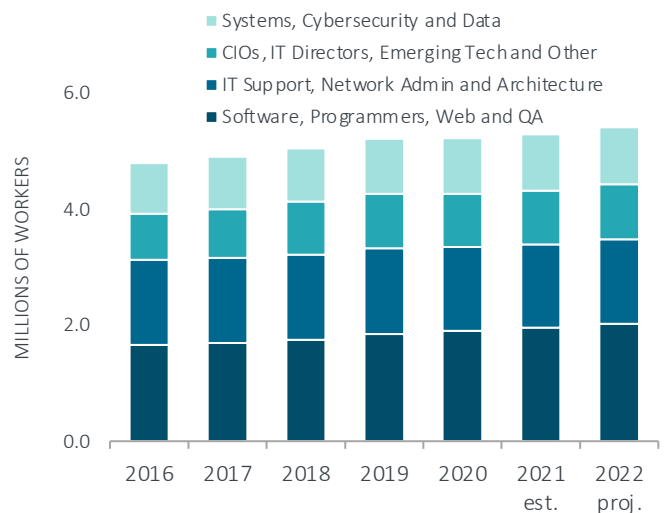
## NET TECH EMPLOYMENT TRENDING



## TECH INDUSTRY EMPLOYMENT TRENDING



## TECH OCCUPATION EMPLOYMENT TRENDING

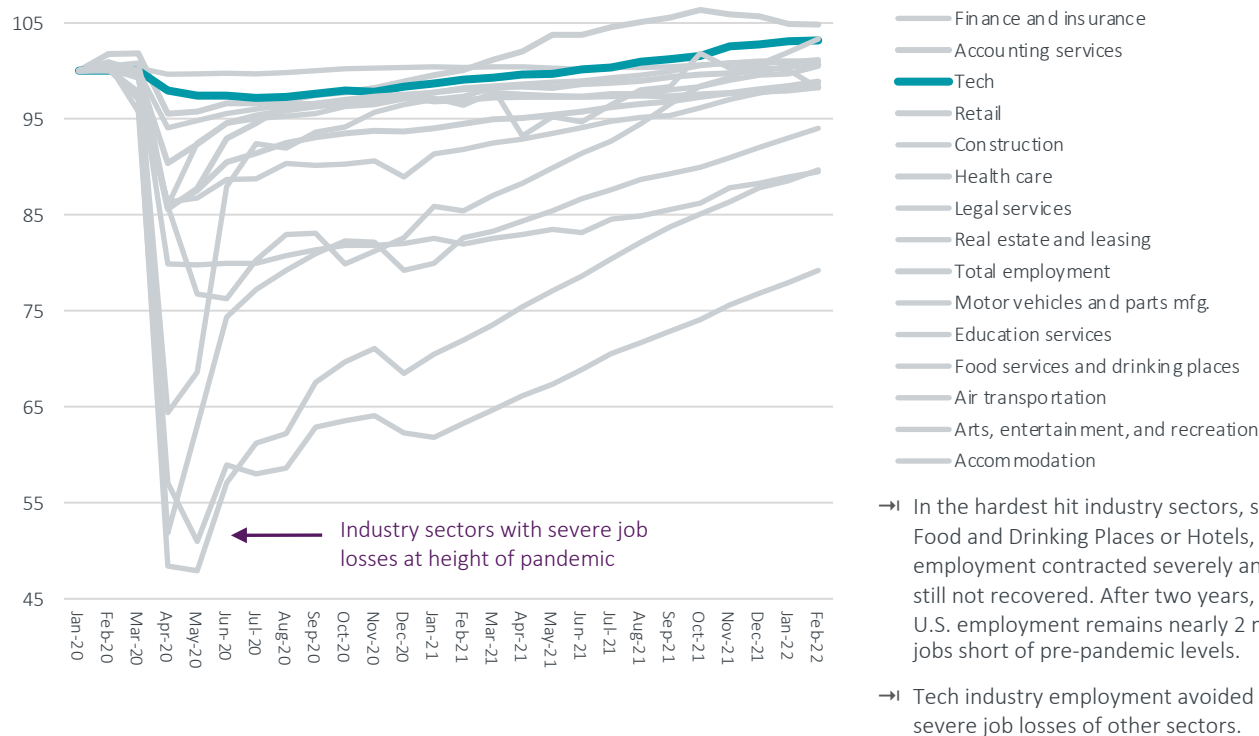


Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# INDUSTRY SECTOR COMPARISONS

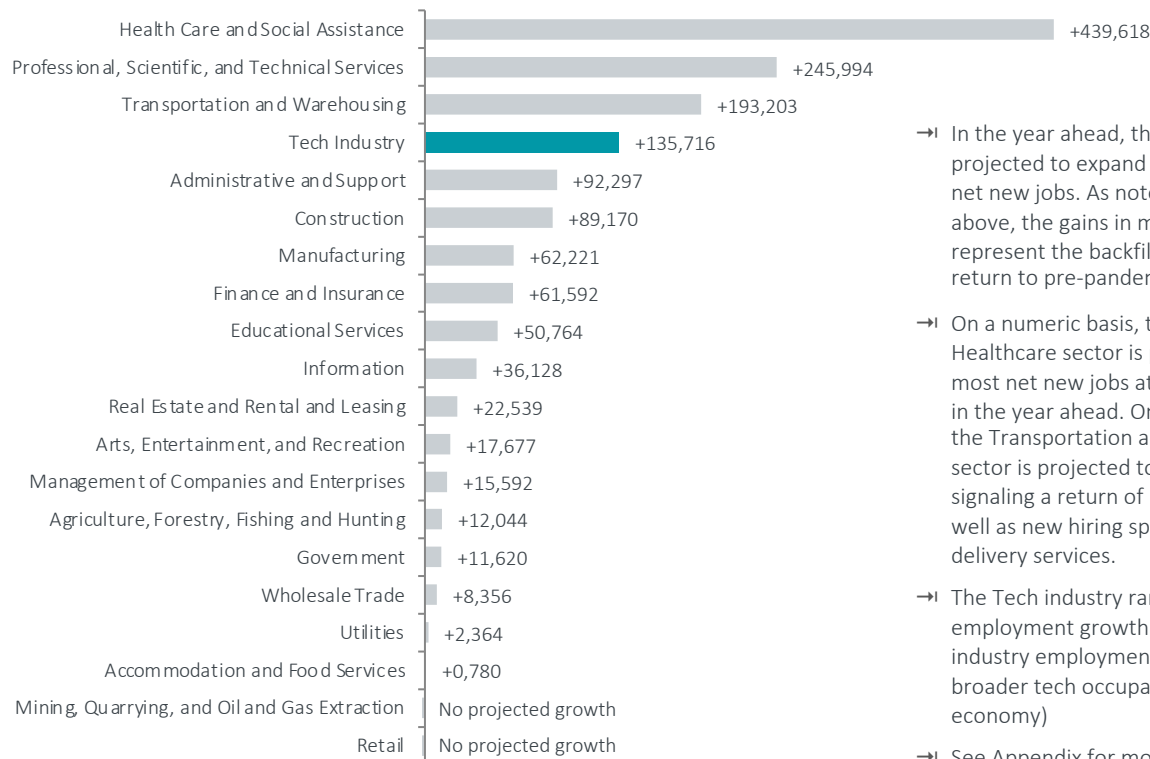
## INDEX OF MONTHLY EMPLOYMENT CHANGES ACROSS INDUSTRY SECTORS

Note: chart depicts relative employment of industry sectors | data at 2 or 4-digit NAICS



## TOTAL PROJECTED EMPLOYMENT GAINS IN 2021 ACROSS INDUSTRY SECTORS

Note: the Tech Industry spans multiple sectors so there will be a degree of double-counting | graph intended for comparison purposes



- In the year ahead, the U.S. labor market is projected to expand by nearly 1.3 million net new jobs. As noted in the chart above, the gains in many sectors represent the backfilling of lost jobs and a return to pre-pandemic levels.
- On a numeric basis, the massive Healthcare sector is projected to add the most net new jobs at more than 400,000 in the year ahead. On a percentage basis, the Transportation and Warehousing sector is projected to lead the way, signaling a return of recovery hiring as well as new hiring spurred by the need for delivery services.
- The Tech industry ranks 4<sup>th</sup> in projected employment growth. Note: this covers industry employment only (not the broader tech occupations across the economy)
- See Appendix for more comparison data.

# THE DECADE AHEAD

## KEY POINTS

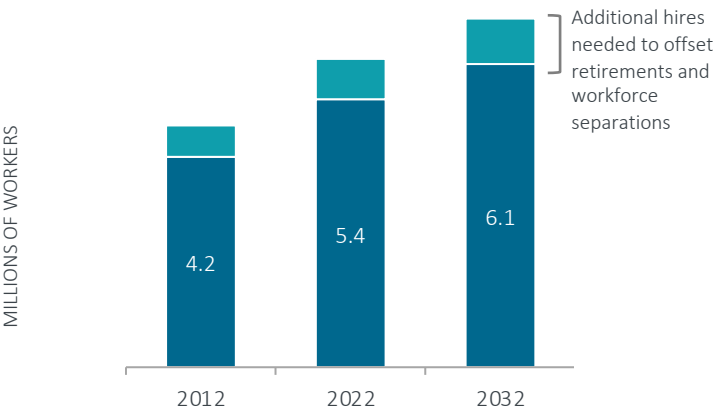
- By 2032, projections from the U.S. Bureau of Labor Statistics and EMSI Burning Glass put the base of tech occupation employment at approximately 6.1 million (note: this covers occupations only and represents a subset of the net tech employment figure presented previously).
- Calculating future workforce needs over the next decade is a function of several variables. First, there is a growth component, which may entail organizations adding headcount due to expansion or possibly to support new emerging technologies. Secondly, 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 2022-2032 period is expected to average about 7% annually, or approximately 412,000 workers each year, totaling several million through 2032. The total turnover rate, which encompasses workers transitioning within tech such as those promoted into a new role, is estimated to average 37% annually during the period. In comparison, food service occupations have a turnover rate of 148%.
- 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 rate above the national rate.

268%	Data Scientists
253%	Cybersecurity
215%	Software Developers and Software QA
155%	Computer and Information Research Scientists
93%	Web Developers and Digital Interface Designers
47%	Emerging Tech, IT Project Mgt. and Other
41%	CIOs and IT Directors
38%	Database Administrators and Architects
28%	IT Support Specialists
5%	Systems Analysts and Engineers
3%	Network Engineers and Specialists

- 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 2021 and into 2022. Note: job postings should not be interpreted as unfilled jobs and there is not a 1:1 relationship between postings and actual hires made.

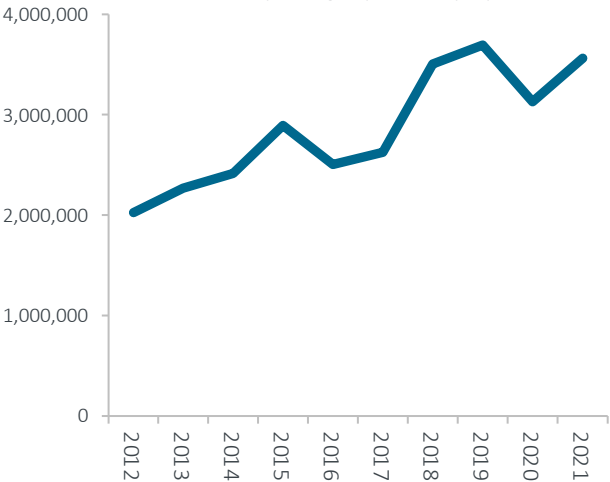
## TECH OCCUPATION EMPLOYMENT OUTLOOK

Workforce need = annual replacement rate + growth rate



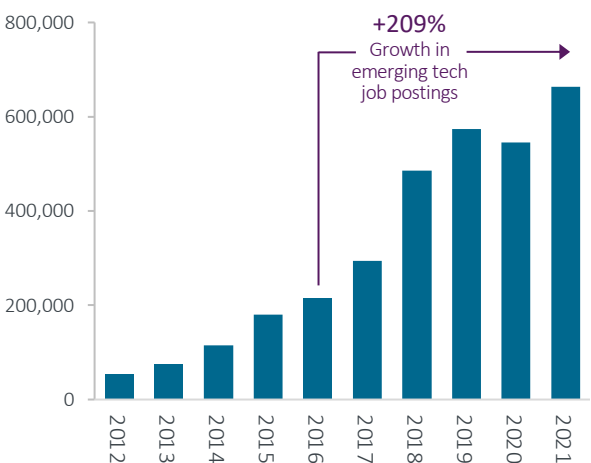
## AGGREGATE ANNUAL JOB POSTINGS FOR TECH OCCUPATIONS

Job postings by U.S. employers



## EMERGING TECH DEMAND RAMPES UP

Annual emerging tech job postings by U.S. employers



Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

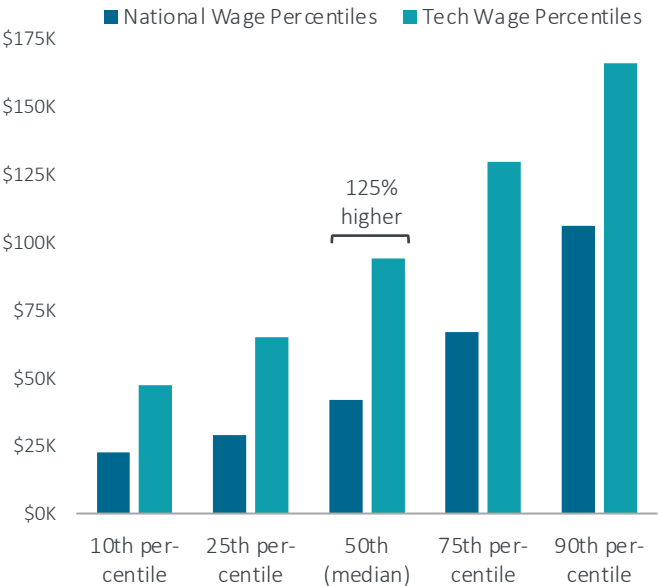


# THE MANY FACETS OF WAGE DATA

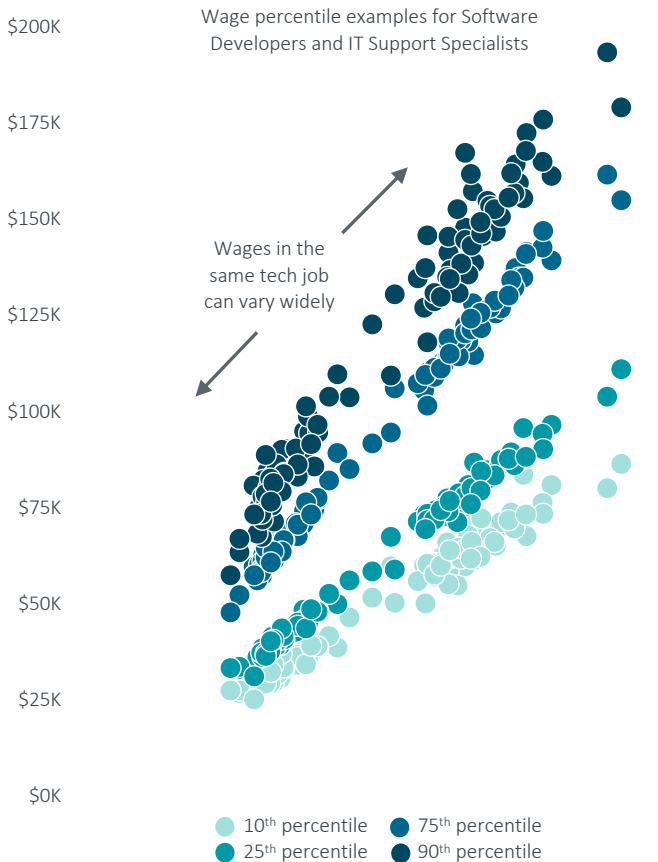
## KEY POINTS

- ➔ 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 \$1.1 million. See CompTIA’s Tech Town Index for guidance on tech wages relative to cost of living or See CompTIA IT Salary Calculator for detailed wage data across 400+ metro areas.
- ➔ 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.
- ➔ 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 10<sup>th</sup> percentile, and then with experience and additional training and certification, moving up through the higher wage levels.
- ➔ Across all tech occupation categories covered in this report, the median wage, also referred to as the 50<sup>th</sup> percentile or midpoint, was an estimated \$94,058 in 2020, the most recent year of available data. This figure is more than double the median wage across all occupations of the U.S. labor force.
- ➔ 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 25<sup>th</sup> percentiles often correspond to early-stage career positions (e.g. 0-4 years of experience), while 75<sup>th</sup> and 90<sup>th</sup> 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.

## ANNUAL WAGE COMPARISON ACROSS OCCUPATIONS



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



Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# KEY FINDINGS – TECH WORKFORCE CHARACTERISTICS

## LABOR FORCE CHARACTERISTICS OVERVIEW

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

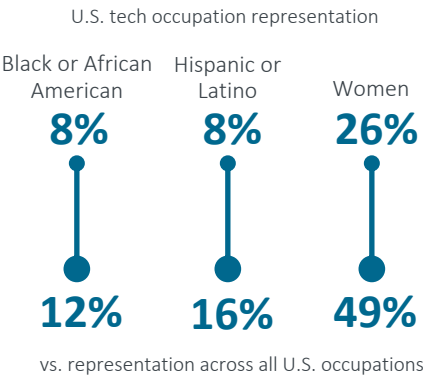
## DIVERSITY INDEX

- There are several approaches to assessing labor force characteristics. Numeric totals and relative percentages are good starting points. Taking it a step further, however, provides deeper insights and more context.
- To measure overall race and ethnicity characteristics within the tech workforce, this report uses a metric called *Simpson’s Diversity Index*. This index weights two key facets of race and ethnicity within the workforce – richness and evenness (or think of it as depth and breadth) and reflects it in a single metric.
- The U.S. tech workforce recorded a Diversity Index measure of 58, roughly on par with the overall U.S. workforce measure of 56 on a 100-point scale. The District of Columbia recorded the highest tech workforce Diversity Index score at 67, 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 District of Columbia, Mississippi, Georgia, and Maryland.
- Nationally, Hispanic or Latino workers represent 16% 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, South Carolina, and Maine.

## TECH WORKFORCE CHARACTERISTICS<sup>2</sup>



## EXAMPLES OF TECH JOB REPRESENTATION VS. ALL JOBS IN STATE REPRESENTATION<sup>2</sup>

### BLACK OR AFRICAN AMERICAN REPRESENTATION

	Tech Jobs	All Jobs
District of Columbia	26%	32%
Mississippi	24%	37%
Georgia	23%	32%
Maryland	20%	27%

### HISPANIC OR LATINO REPRESENTATION

	Tech Jobs	All Jobs
New Mexico	32%	45%
Florida	17%	25%
Texas	16%	34%
Arizona	16%	30%

### WOMEN REPRESENTATION

	Tech Jobs	All Jobs
District of Columbia	33%	56%
Mississippi	30%	51%
South Carolina	30%	50%
Maine	30%	50%

Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# KEY FINDINGS – NATIONAL EMPLOYMENT

## U.S. NET TECH EMPLOYMENT

- U.S. net tech employment totaled an estimated 8.7 million in 2021, a gain of almost 1% compared to the previous year. Net tech employment is projected to grow at an estimated 2.0% year-over-year reaching 8.9 million in 2022.
- Net tech employment accounted for approximately 5.7 percent of the overall U.S. workforce in 2021. 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 5.8 million in 2021, an increase of 53,194 workers from 5.7 million in 2020. Tech industry employment is projected to grow at an estimated 2.4% year-over-year reaching 5.9 million in 2022. As noted, tech industry employment is a subset of net tech employment.
- Tech manufacturing employment totaled an estimated 1.1 million in 2021 and is projected to grow by 5,623 jobs in 2022.
- Among the seven major tech manufacturing subsectors – the OEMs and companies producing computing hardware, peripherals, semiconductors, etc., two are 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 1.4 million in 2021, projected to go up by 15,653 jobs in 2022. These employment gains are driven by growth in the data processing, hosting, and search portal services categories, where employment should increase by 32,540 jobs. Wired and wireless telecommunications services are projected to lose 17,723 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 522,323 workers in 2021, and is projected to add more than 23,000 net new jobs. On a percent change basis, software will lead the tech sector with a 4.5% projected year-over-year growth rate.
- The IT services and custom software services subsector will generate the largest numerical gain in employment, adding more than 90,000 net-new jobs in 2022. This gain of 3.3 percent will increase the employment base to 2.9 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 5.3 million workers in 2021 and is projected to increase 124,799 jobs in 2022. On a percent change basis, the annual growth rate is 2.4%.
- Since 2016, more than 500,000 new tech occupation jobs were added, a function of the demand for tech talent across every industry sector in the economy.
- On a numeric basis, software developers, systems analysts and cybersecurity analysts, network architects, and IT support specialists recorded the largest gains in employment. 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>2021 est.</u>	<u>2022 proj.</u>	<u>Numeric Change</u>
Tech Occupation Employment	5.3m	5.4m	+124,799
Tech Industry Employment	5.8m	5.9m	+135,716
Net Tech Employment	8.7m	8.9m	+177,705

## U.S. TECH INDUSTRY EMPLOYMENT

	<u>2021 est.</u>	<u>2022 proj.</u>	<u>Projected Numeric Change</u>
Tech Manufacturing	1.1m	1.1m	+5,623
Telecommunications and Internet Services	1.4m	1.4m	+15,653
Software [product]	0.5m	0.5m	+23,453
IT Services & Custom Software services	2.8m	2.9m	+90,986
Total	5.8m	5.9m	+135,716

## TECH OCCUPATION CATEGORY SUMMARY

	<u>2021 est.</u>	<u>2022 proj.</u>	<u>Projected Numeric Change</u>
Software	1,950,875	2,017,131	+66,256
IT Support Specialists	756,067	766,630	+10,564
Cybersecurity and Systems Engineers	736,417	751,557	+15,140
Network Engineers	684,079	692,528	+8,449
Emerging Tech and Other	458,556	467,414	+8,858
Database, Data Scientists	230,621	236,904	+6,282
CIOs and IT Managers	468,443	477,693	+9,250
Total	5.3m	5.4m	+124,799

Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# KEY FINDINGS – STATE EMPLOYMENT

## STATE NET TECH EMPLOYMENT

- Forty-four states experienced job gains in net tech employment from 2020 to 2021. Forty-nine states are projected to generate positive tech employment job growth in 2021. 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 broad-based impact of technology across the nation.
- On an industry sector basis, the 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:
  - Software: 48 states
  - IT services/custom software services: 41 states
  - Telecommunications: 37 states
  - Tech manufacturing: 18 states
- 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 percent 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 Cyberstates categories.
- California's net tech employment was an estimated 1,411,447 workers in 2021, a gain of 5,165 net new jobs year-over-year. Other states that experienced notable tech employment gains include Texas, Florida, North Carolina, and Washington.
- On a percent change basis, the top five states for job growth in 2021 were Nevada (+3.3%), Tennessee (+2.9%), Rhode Island (+2.9%), Idaho (+2.7%), and Wyoming (+2.6%).
- Employment concentration is a relative metric that compares tech employment to the overall base of employment within a state. Sixteen states are at or higher than the national average of 5.7 percent.
- 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: 9.2%
  - Virginia: 8.7%
  - Massachusetts: 8.6%
  - Colorado: 8.3%
  - New Hampshire: 7.8%
  - Maryland: 7.8%
  - California: 7.8%
  - Utah: 6.9%
  - Oregon: 6.3%
- Conversely, the states with the lowest concentration of tech workers are: Wyoming, Mississippi, Louisiana, West Virginia, and North Dakota.

## TOP STATES BY NET TECH EMPLOYMENT

1.	California	1,411,447
2.	Texas	790,981
3.	New York	506,529
4.	Florida	446,266
5.	Virginia	351,449
6.	Washington	333,391
7.	Illinois	318,662
8.	Massachusetts	307,926
9.	Pennsylvania	285,376
10.	Georgia	281,666

## TOP STATES BY NET TECH EMPLOYMENT JOB GAINS

1.	Texas	+10,851
2.	Florida	+10,522
3.	California	+5,165
4.	North Carolina	+5,004
5.	Washington	+4,469
6.	Georgia	+4,219
7.	Colorado	+3,624
8.	Tennessee	+3,282
9.	New Jersey	+3,114
10.	Pennsylvania	+2,844

## TOP STATES BY PROJECTED PERCENT CHANGE IN TECH OCCUPATION GROWTH 2022-2032

1.	Utah	26%
2.	Arizona	25%
3.	Colorado	24%
4.	Nevada	23%
5.	Texas	20%
6.	District of Columbia	20%
7.	Florida	20%
8.	Idaho	20%
9.	Louisiana	18%
10.	Oregon	18%

Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA



# KEY FINDINGS – STATE TECH STARTUPS AND ECONOMIC IMPACT

## STATE TECH BUSINESS ESTABLISHMENTS AND STARTUPS DRIVE INNOVATION

- Fifty 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 5.3% in 2021, or the equivalent of 25,500 additional business establishments.
- On a numeric basis, Florida had the largest year-over-year increase of net-new tech business establishments (+2,715). Rounding out the top five for net-new tech business establishments were Texas, California, Colorado, and Massachusetts. On a percent change basis, Vermont experienced the largest increase at 11.6%, followed by Idaho, Nebraska, Montana and Tennessee.

## STATE TECH ECONOMIC IMPACT

- 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 9.3% of direct economic value, which translates to over \$1.8 trillion.
- A total of 27 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 \$516 billion in economic impact, representing 18% of the state's economy. On a dollar basis the other top states include Texas, New York, Washington and Massachusetts. Every state and the District generated positive gains in the economic impact of the tech sector in their state in 2021.
- 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 2021 were California, Texas, and New York. States that saw the best improvement year-over-year were Texas, Georgia, Florida, Illinois, and Michigan.
- Top states for emerging tech job postings in 2021 were California (167,759), Texas (101,016), New York (54,737), Virginia (48,227), and Massachusetts (47,646). States that saw the largest increase in emerging tech positions in 2021 when compared to the previous year were Texas (+27,840), California (+21,736), and Georgia (+18,304).
- Emerging tech job postings as a percentage of total IT job postings are highest in Massachusetts (42.4% of IT Job postings are emerging tech), Washington (40.2%), California (33.6%), Connecticut (32.4%), and New York (31.5%).

## 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 2021, 28% specified a WFH or hybrid work option, or slightly over 1 million job postings. This represents a 77% increase over the 2019 pre-pandemic rate. Presumably, a portion of other job postings had an implied option for WFH but did not specifically mention it in the job posting, so the actual rate is likely slightly higher given the “new normal” of WFH and hybrid work.

## TOP STATES BY NUMBER OF NEW TECH BUSINESS ESTABLISHMENTS IN 2021

1. Florida	+2,715
2. Texas	+1,807
3. California	+1,199
4. Colorado	+1,096
5. Massachusetts	+981
6. Tennessee	+965
7. Pennsylvania	+908
8. North Carolina	+864
9. Washington	+832
10. Illinois	+800

## TOP STATES BY TECH ECONOMIC IMPACT AS PERCENT OF STATE ECONOMY

1. Washington	22.4%
2. California	18.0%
3. Massachusetts	13.7%
4. Colorado	13.0%
5. New Hampshire	12.5%
6. Virginia	11.3%
7. Oregon	10.9%
8. Utah	10.0%
9. Maryland	9.6%
10. Washington	9.3%

## TOP STATES BY GROWTH IN EMPLOYER JOB POSTINGS FOR TECH OPENINGS

1. Texas	+53,123
2. Georgia	+45,339
3. Florida	+37,959
4. Illinois	+29,533
5. Michigan	+22,339
6. Colorado	+20,203
7. Washington	+19,737
8. New York	+14,491
9. Utah	+12,934
10. Alabama	+12,280

Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# KEY FINDINGS – METRO AREA EMPLOYMENT

## METRO AREA NET TECH EMPLOYMENT

- The top ten metropolitan areas employ a little more than 3 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.
- Silicon Valley continues to be a critically important hub for innovation. Between San Francisco and San Jose, there are nearly 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.
- As noted throughout this report, there are many nuances to assessing the tech landscape and a single figure rarely tells the whole story. For example, metro areas that may appear to be lagging based on overall tech job gains, typically also have pockets of growth. In the case of the New York City area, which had a decline in tech employment, the software category increased by 1.3%. Job growth is also relative, where tech industry employment gains outperformed many other sectors in the local economy, including health care services, retail, and construction.

## METRO AREA EMPLOYMENT CONCENTRATION

- 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%, 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 5.7%, 27 metro areas had a higher rate, 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 22,692 tech business establishments. Other top cities are Washington DC, Los Angeles, Dallas, and Chicago.
- 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 San Francisco, Seattle, Boston, Denver, and Atlanta.

## METRO AREA EMPLOYER JOB POSTINGS

- Cities with the most IT job postings in 2021 were New York, Washington DC, Dallas, Los Angeles, and San Francisco. In terms of year-over-year change the top metros were Atlanta, Dallas, Chicago, Seattle, and Miami.
- Emerging tech job positions were highest in New York City (69,739), Washington DC (59,594), San Francisco (54,085), Dallas (52,512), and San Jose (44,918) round out the top five cities for emerging tech job postings.

## TOP METROS BY NET TECH EMPLOYMENT

1.	New York City	526,086
2.	Washington DC	362,617
3.	Los Angeles	359,158
4.	San Jose	355,852
5.	San Francisco	336,445
6.	Dallas	313,447
7.	Seattle	283,492
8.	Boston	270,284
9.	Chicago	245,484
10.	Atlanta	217,170

## TOP METROS BY NET TECH EMPLOYMENT JOB GAINS

1.	Dallas	+5,321
2.	Seattle	+2,651
3.	Denver	+2,502
4.	Miami	+2,072
5.	Austin	+1,846
6.	Salt Lake City	+1,597
7.	Charlotte	+1,147
8.	San Diego	+1,045
9.	Washington DC	+1,035
10.	Phoenix	+1,008

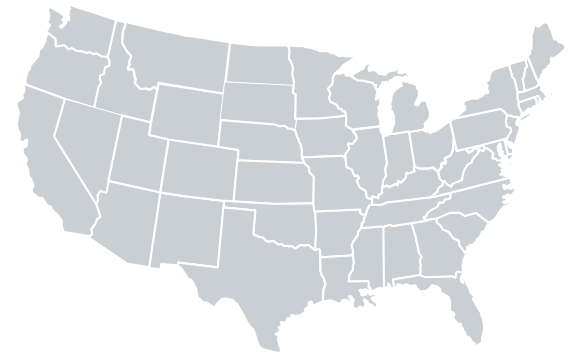
## TOP METROS BY TECH ECONOMIC IMPACT AS A PERCENT OF LOCAL ECONOMY

1.	San Jose	58.2%
2.	Seattle	29.5%
3.	San Francisco	28.1%
4.	Austin	24.7%
5.	Raleigh	17.9%
6.	Boston	15.6%
7.	Portland	14.6%
8.	Denver	14.2%
9.	Washington DC	13.9%
10.	Atlanta	12.8%

Source: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# NATIONAL SNAPSHOT

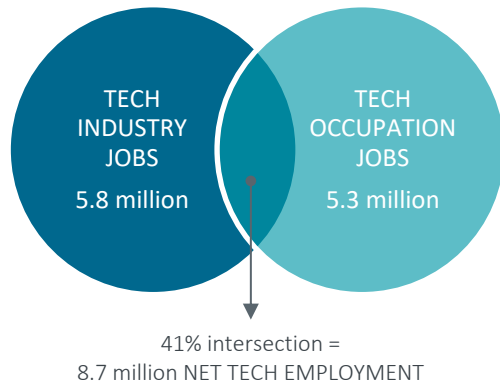
# United States



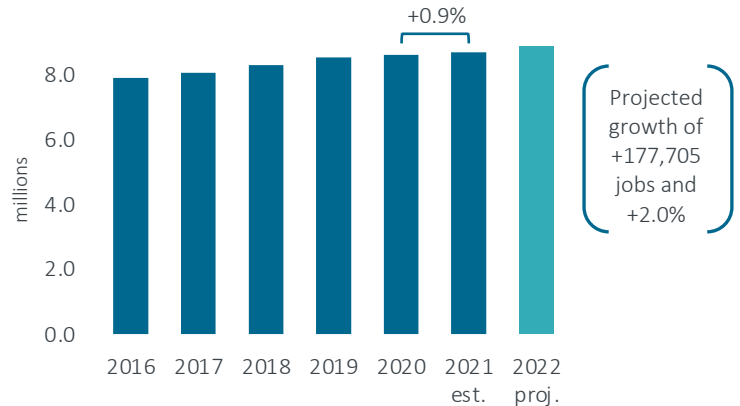
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

8,679,198 NET TECH EMPLOYMENT<sup>1</sup>  
 5.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$1.8t ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.3% ECONOMIC IMPACT AS A % OF OVERALL  
 507,096 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 3,565,711 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

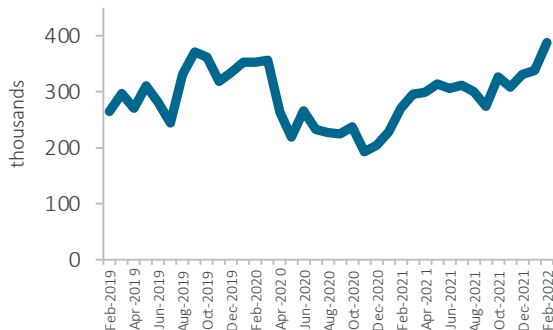


## NET TECH EMPLOYMENT +79,922 jobs



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



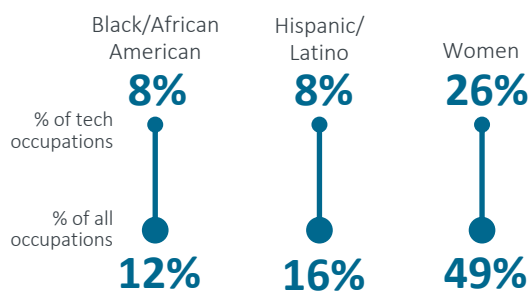
<sup>2</sup>Data covers core tech occupations | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	1,950,875	3.4%
IT Support Specialist and Repair Technicians	756,067	1.4%
Cybersecurity and Systems Engineers	736,417	2.1%
Network Engineers, Architects and Support	684,079	1.2%
Emerging Tech, IT Project Mgt. and Other	391,467	2.1%
Database, Data Science and CS	230,621	2.7%

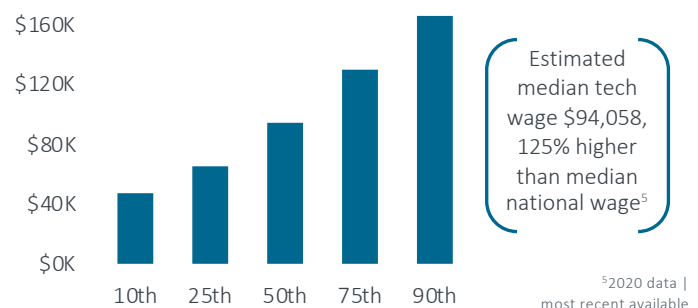
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

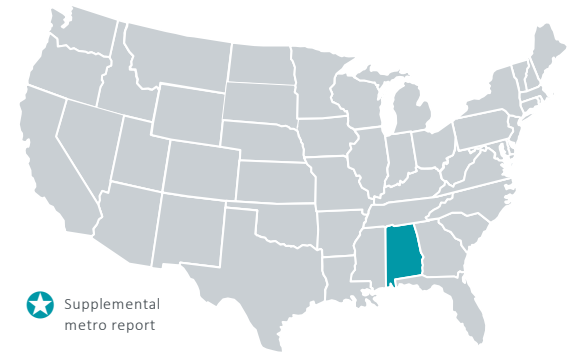
## TECH OCCUPATION WAGES [by percentile]





# STATE SNAPSHOTS

# Alabama

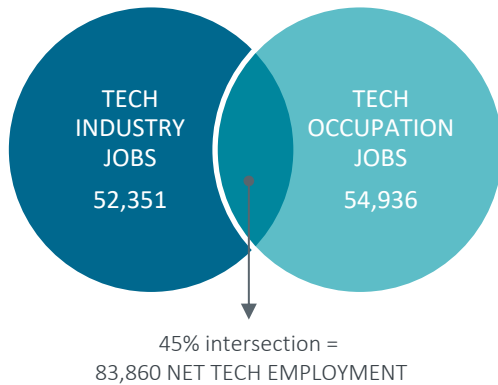


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

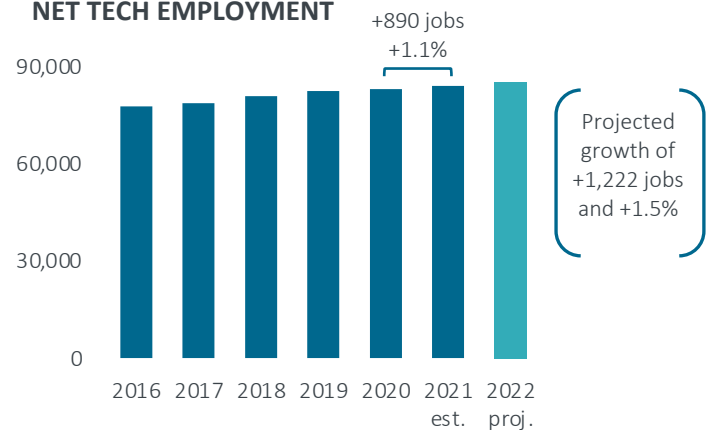
83,860 NET TECH EMPLOYMENT<sup>1</sup>  
 4.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$9.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.3% ECONOMIC IMPACT AS A % OF OVERALL  
 5,469 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 36,972 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

26<sup>th</sup> NET TECH EMPLOYMENT RANK  
 23<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 13<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = highest | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

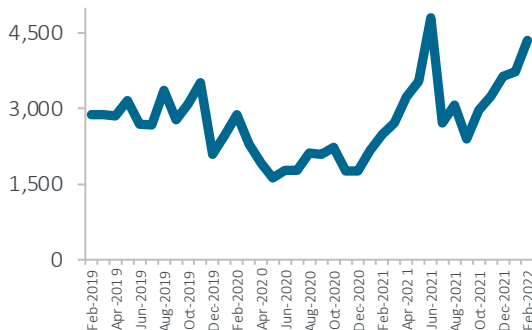


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



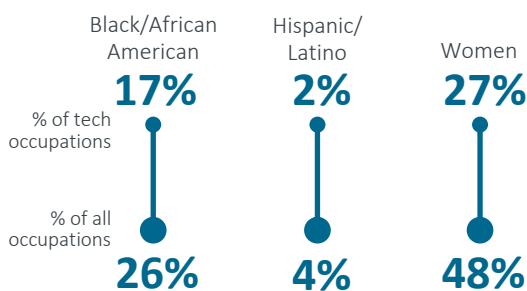
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	20,082	2.9%
IT Support Specialist and Repair Technicians	8,650	1.2%
Network Engineers, Architects and Support	7,571	0.9%
Cybersecurity and Systems Engineers	7,417	2.4%
Database, Data Science and CS	2,941	1.9%
Emerging Tech, IT Project Mgt. and Other	2,820	2.7%

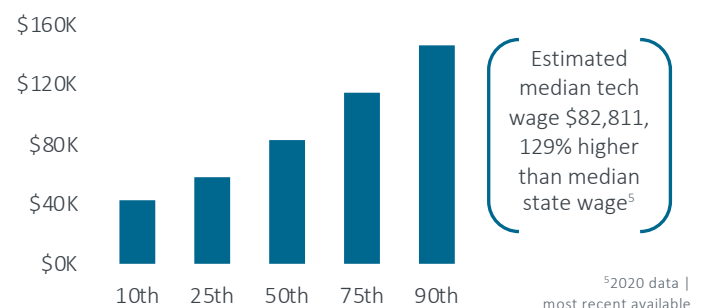
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



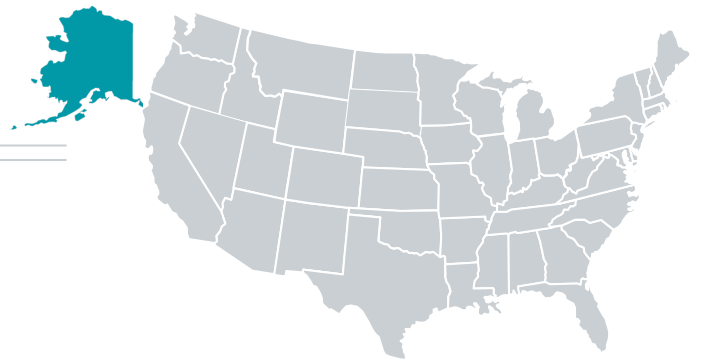
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Alaska

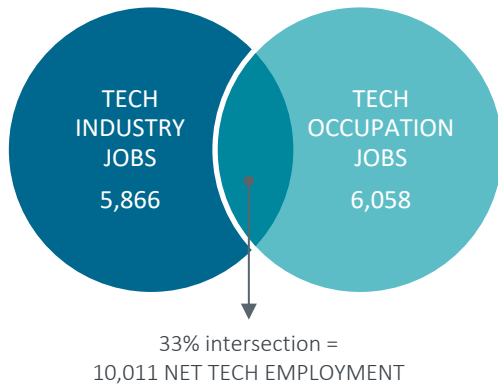


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

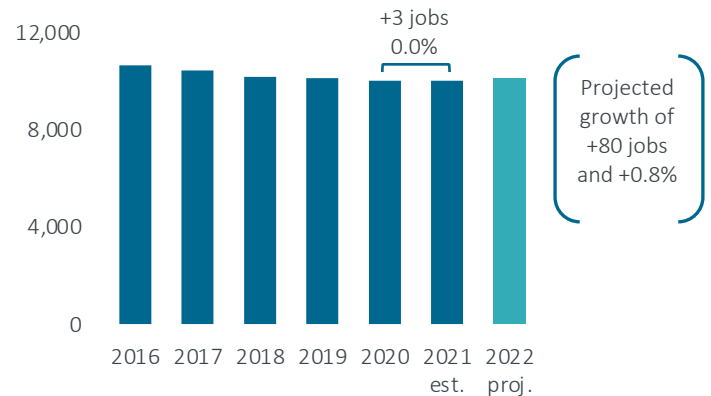
10,011 NET TECH EMPLOYMENT<sup>1</sup>  
 3.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$1.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.6% ECONOMIC IMPACT AS A % OF OVERALL  
 768 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 6,287 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 15.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

50<sup>th</sup> NET TECH EMPLOYMENT RANK  
 44<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 14<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = highest | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

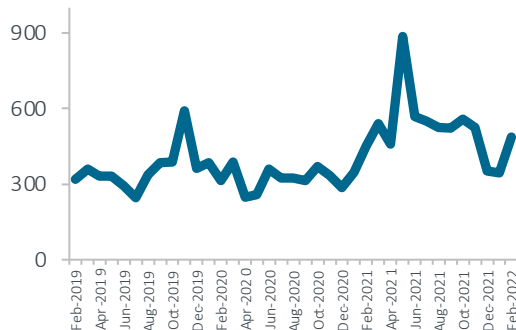


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



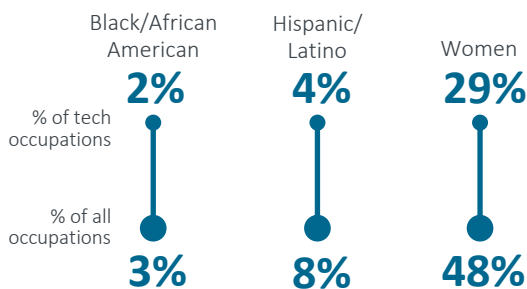
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Network Engineers, Architects and Support	1,557	-0.2%
Software, Programmers, Web and QA	1,303	2.0%
IT Support Specialist and Repair Technicians	905	0.6%
Emerging Tech, IT Project Mgt. and Other	662	1.3%
Cybersecurity and Systems Engineers	635	1.0%
Database, Data Science and CS	380	1.4%

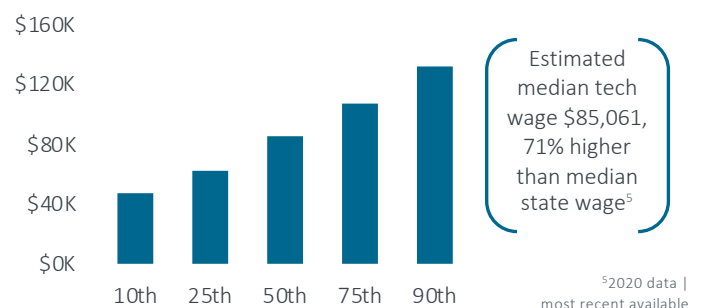
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

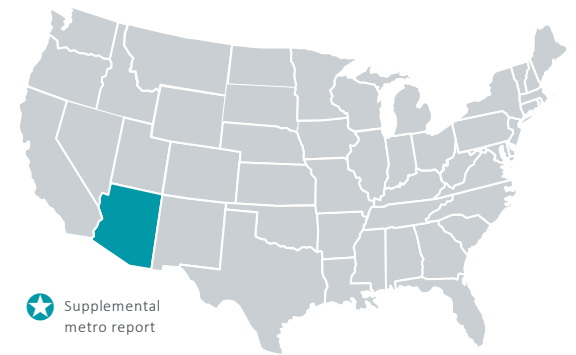
## TECH OCCUPATION WAGES [by percentile]



# Arizona

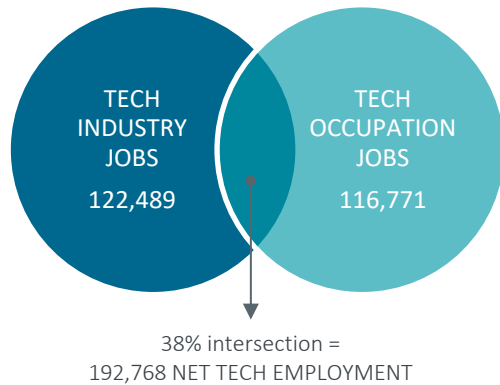
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

192,768	NET TECH EMPLOYMENT <sup>1</sup>
6.2%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$29.2b	ECONOMIC IMPACT [estimated direct impact of tech sector]
8.2%	ECONOMIC IMPACT AS A % OF OVERALL
11,431	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
93,491	EMPLOYER JOB POSTINGS [2021 total for tech occupations]
26.4%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

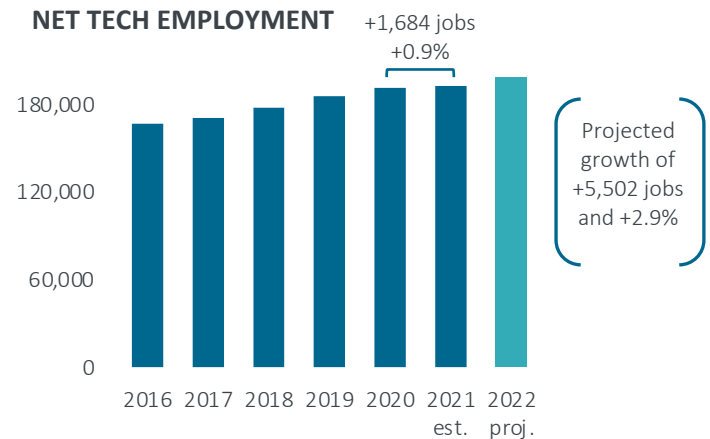


16 <sup>th</sup>	NET TECH EMPLOYMENT RANK
17 <sup>th</sup>	NET TECH EMPLOYMENT JOBS ADDED RANK
25 <sup>th</sup>	TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
2 <sup>nd</sup>	DIVERSITY INDEX QUARTILE [1 <sup>st</sup> = top   see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

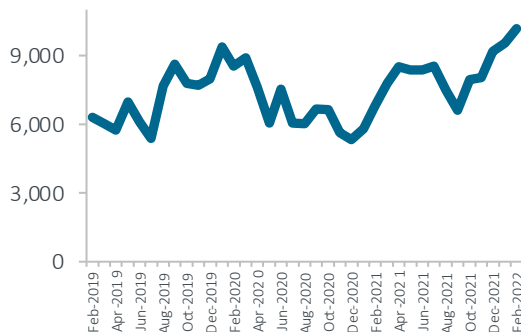


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



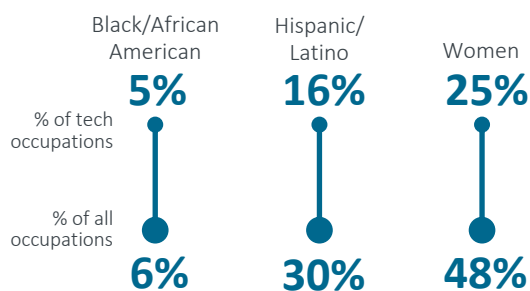
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	41,051	4.5%
IT Support Specialist and Repair Technicians	21,374	2.2%
Cybersecurity and Systems Engineers	16,440	3.4%
Network Engineers, Architects and Support	15,279	2.4%
Emerging Tech, IT Project Mgt. and Other	6,269	3.5%
Database, Data Science, and CS	4,292	4.3%

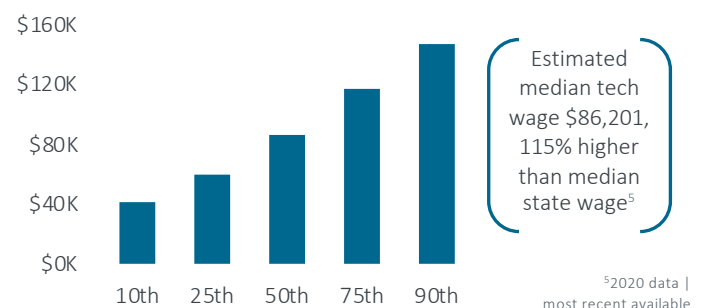
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]

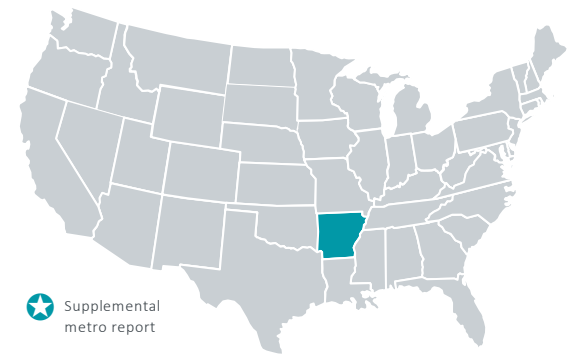




# Arkansas

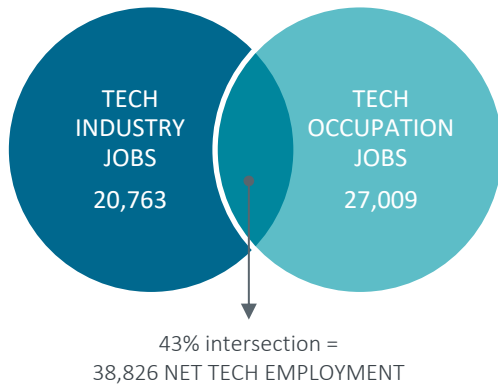
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

38,826 NET TECH EMPLOYMENT<sup>1</sup>  
 3.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.2% ECONOMIC IMPACT AS A % OF OVERALL  
 3,895 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 15,208 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

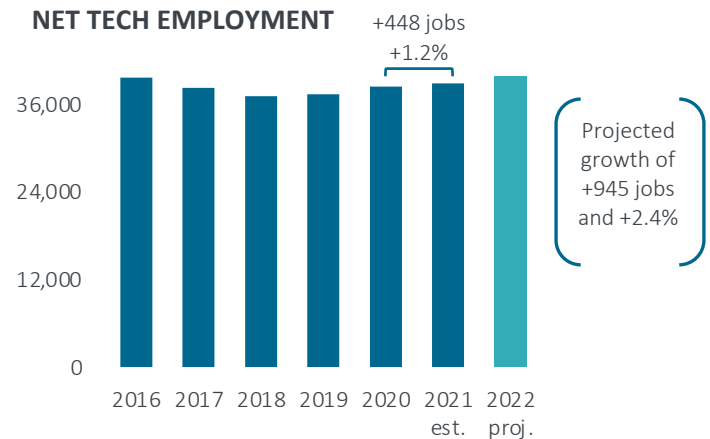


37<sup>th</sup> NET TECH EMPLOYMENT RANK  
 35<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 17<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See Report Methodology for details of rankings and related data.

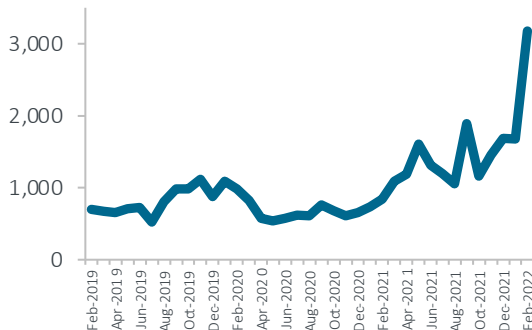


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



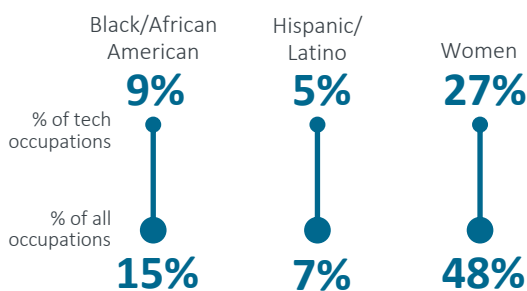
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	9,988	3.6%
IT Support Specialist and Repair Technicians	4,467	1.7%
Network Engineers, Architects and Support	3,965	1.6%
Cybersecurity and Systems Engineers	3,878	2.6%
Database, Data Science and CS	1,018	2.9%
Emerging Tech, IT Project Mgt. and Other	981	3.8%

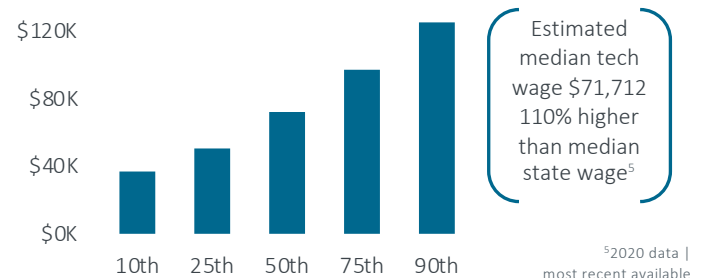
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# California

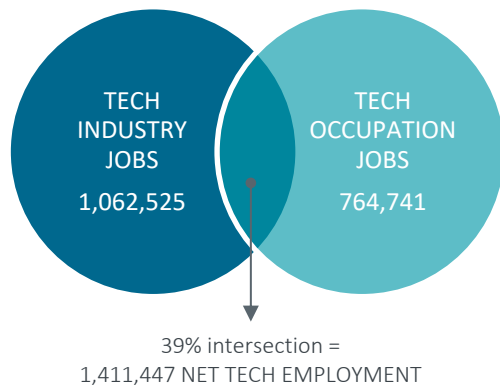


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

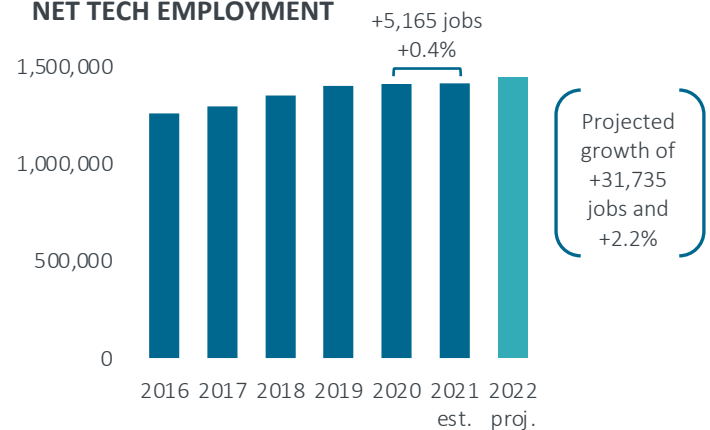
1,411,447	NET TECH EMPLOYMENT <sup>1</sup>
7.8%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$515.6b	ECONOMIC IMPACT [estimated direct impact of tech sector]
18.0%	ECONOMIC IMPACT AS A % OF OVERALL
54,303	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
499,483	EMPLOYER JOB POSTINGS [2021 total for tech occupations]
33.6%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

1 <sup>st</sup>	NET TECH EMPLOYMENT RANK
3 <sup>rd</sup>	NET TECH EMPLOYMENT JOBS ADDED RANK
47 <sup>th</sup>	TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
1 <sup>st</sup>	DIVERSITY INDEX QUARTILE [1 <sup>st</sup> = top   see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

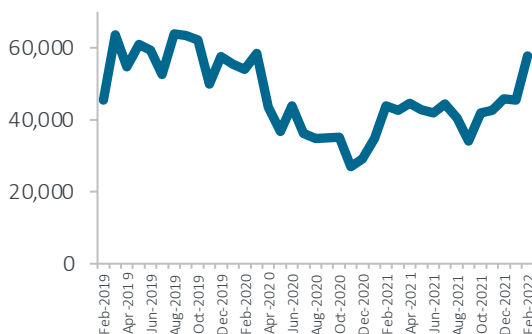


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



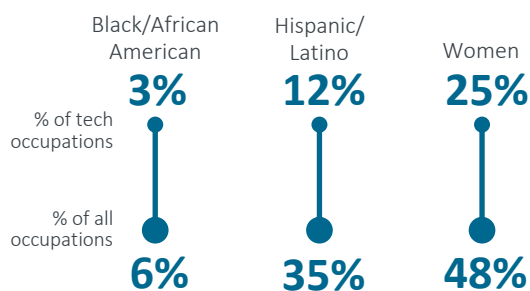
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	312,843	3.6%
IT Support Specialist and Repair Technicians	90,845	1.4%
Emerging Tech, IT Project Mgt. and Other	86,540	1.5%
Cybersecurity and Systems Engineers	76,389	2.3%
Network Engineers, Architects and Support	67,603	1.6%
Database, Data Science and CS	33,118	3.0%

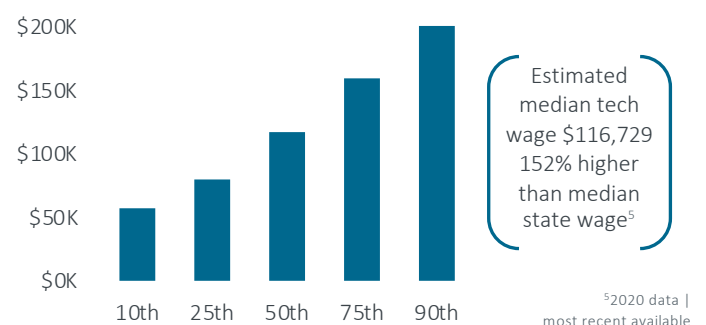
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

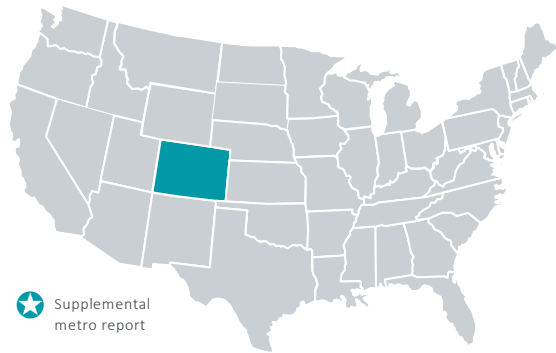


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Colorado

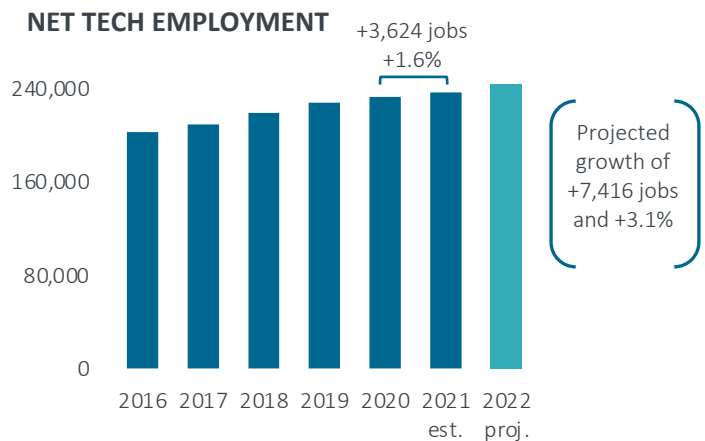
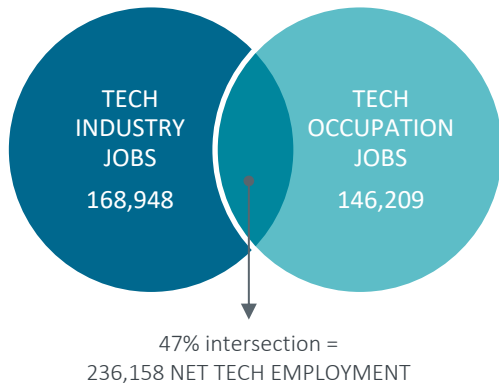


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

236,158	NET TECH EMPLOYMENT <sup>1</sup>
8.3%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$48.2b	ECONOMIC IMPACT <small>[estimated direct impact of tech sector]</small>
13.0%	ECONOMIC IMPACT AS A % OF OVERALL
16,394	TECH BUSINESS ESTABLISHMENTS <small>[firms with payroll]</small>
122,176	EMPLOYER JOB POSTINGS <small>[2021 total for tech occupations]</small>
26.7%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

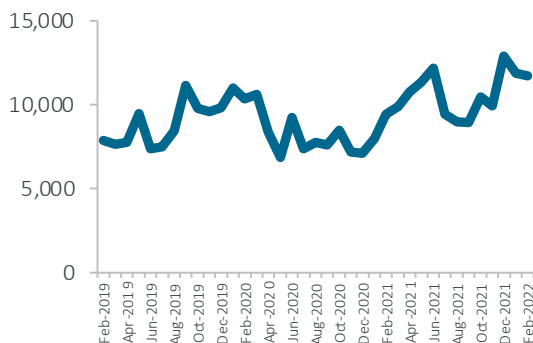
14 <sup>th</sup>	NET TECH EMPLOYMENT RANK
7 <sup>th</sup>	NET TECH EMPLOYMENT JOBS ADDED RANK
20 <sup>th</sup>	TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
3 <sup>rd</sup>	DIVERSITY INDEX QUARTILE <small>[1<sup>st</sup> = top   see footnote]</small>

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



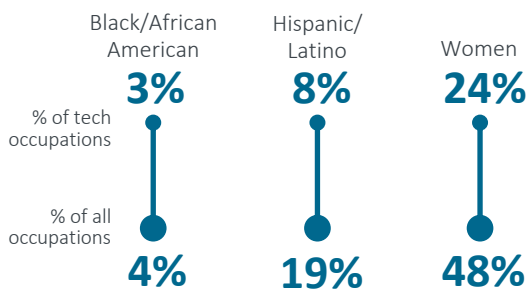
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	59,521	4.5%
Network Engineers, Architects and Support	22,677	2.1%
IT Support Specialist and Repair Technicians	17,827	2.8%
Cybersecurity and Systems Engineers	16,351	3.9%
Emerging Tech, IT Project Mgt. and Other	11,949	2.8%
Database, Data Science, and CS	5,030	4.1%

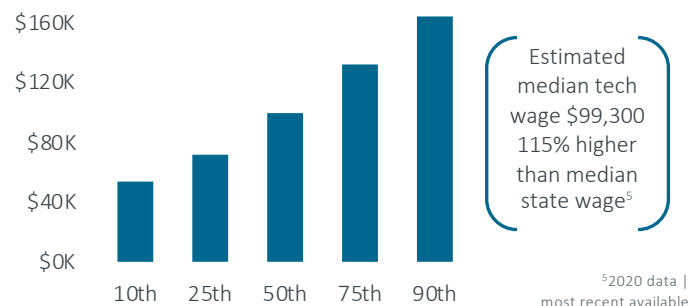
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

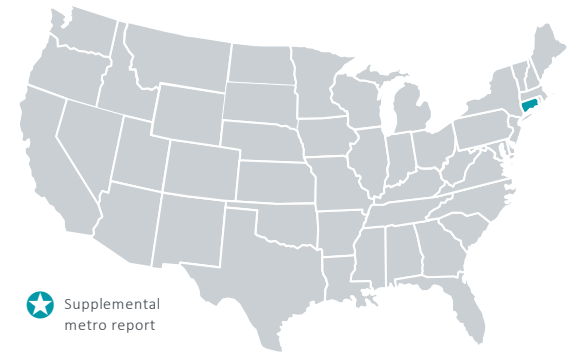


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Connecticut

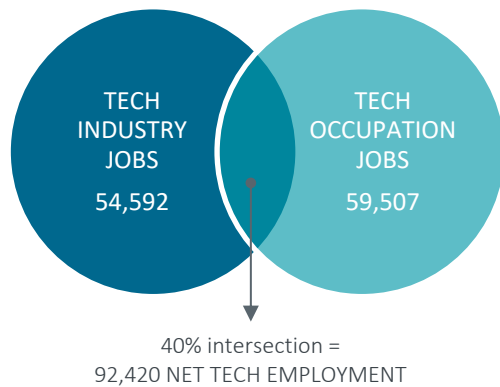


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

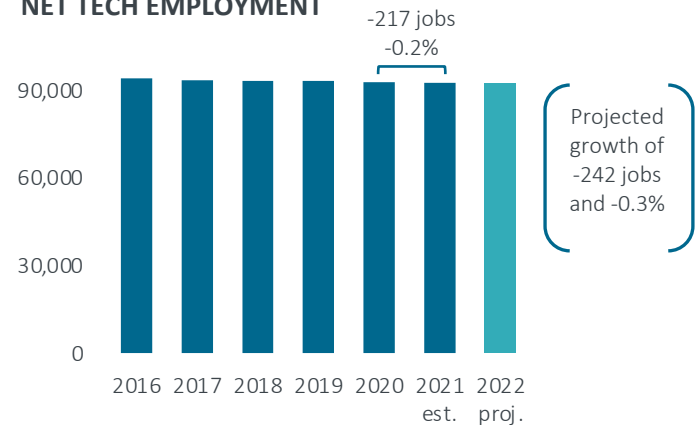
92,420 NET TECH EMPLOYMENT<sup>1</sup>  
 5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$17.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.6% ECONOMIC IMPACT AS A % OF OVERALL  
 7,338 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 43,028 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 32.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

25<sup>th</sup> NET TECH EMPLOYMENT RANK  
 48<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 27<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

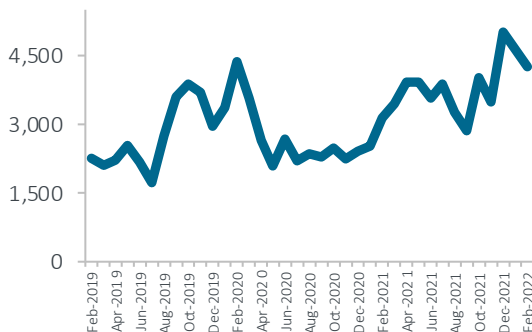


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



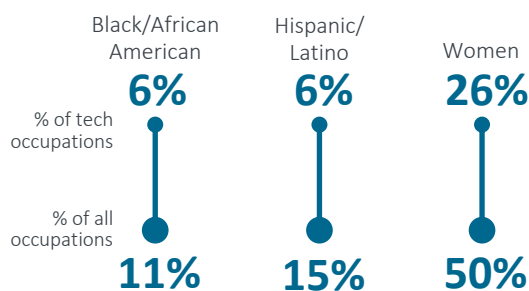
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	21,324	0.9%
IT Support Specialist and Repair Technicians	10,009	-0.6%
Cybersecurity and Systems Engineers	8,283	-0.2%
Network Engineers, Architects and Support	4,993	-0.4%
Database, Data Science and CS	2,732	0.8%
Emerging Tech, IT Project Mgt. and Other	1,679	0.9%

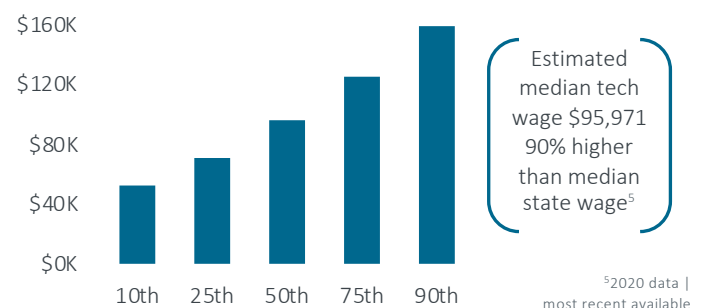
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

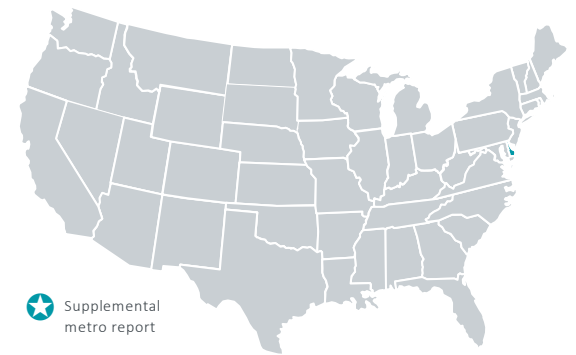
## TECH OCCUPATION WAGES [by percentile]



# Delaware

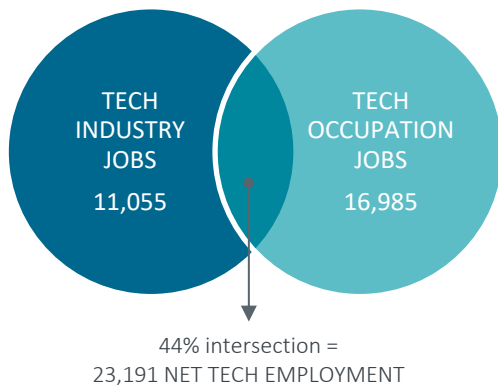
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

23,191 NET TECH EMPLOYMENT<sup>1</sup>  
 5.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.1% ECONOMIC IMPACT AS A % OF OVERALL  
 2,729 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 14,006 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

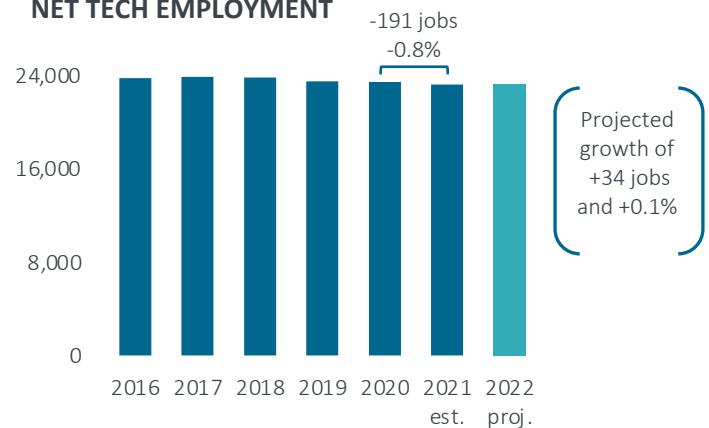


43<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 46<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 49<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

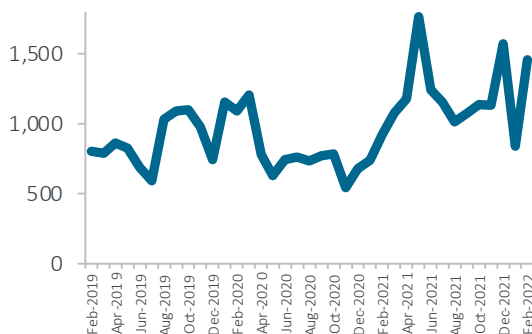


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



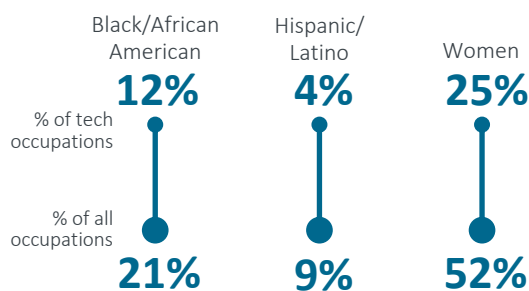
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	6,495	1.1%
Cybersecurity and Systems Engineers	3,017	0.4%
Network Engineers, Architects and Support	2,072	0.0%
IT Support Specialist and Repair Technicians	1,919	-0.1%
Database, Data Science and CS	927	0.8%
Emerging Tech, IT Project Mgt. and Other	665	1.4%

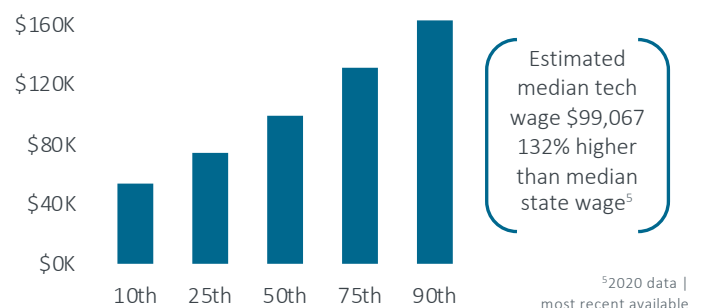
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

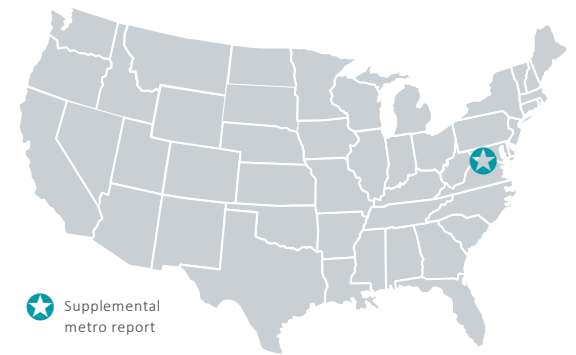
### TECH OCCUPATION WAGES [by percentile]



# District of Columbia

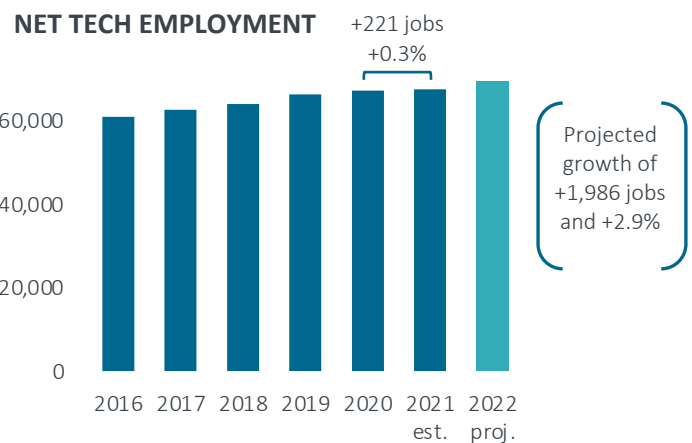
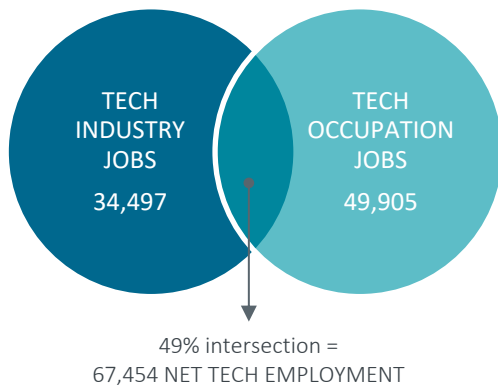
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

67,454 NET TECH EMPLOYMENT<sup>1</sup>  
 9.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$9.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.9% ECONOMIC IMPACT AS A % OF OVERALL  
 4,047 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 58,157 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 24.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



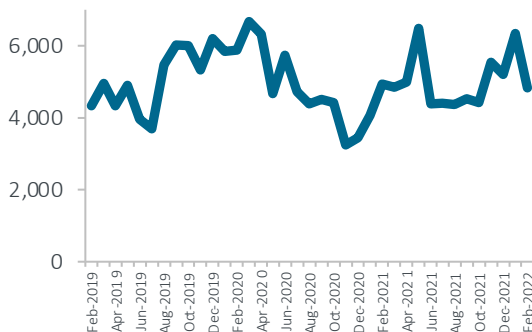
28<sup>th</sup> NET TECH EMPLOYMENT RANK  
 38<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 42<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See Report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



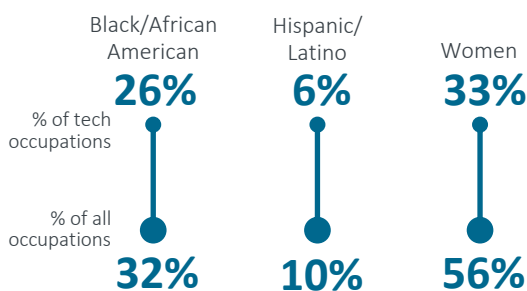
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Emerging Tech, IT Project Mgt. and Other	19,579	1.7%
Software, Programmers, Web and QA	10,871	4.7%
Cybersecurity and Systems Engineers	5,072	3.3%
IT Support Specialist and Repair Technicians	3,859	2.8%
Network Engineers, Architects and Support	3,719	2.5%
Database, Data Science and CS	1,953	3.1%

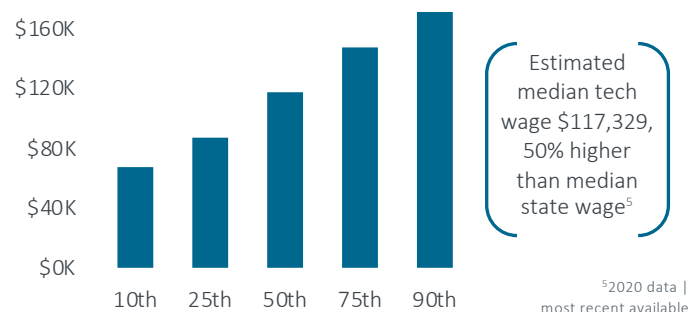
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]





# Florida

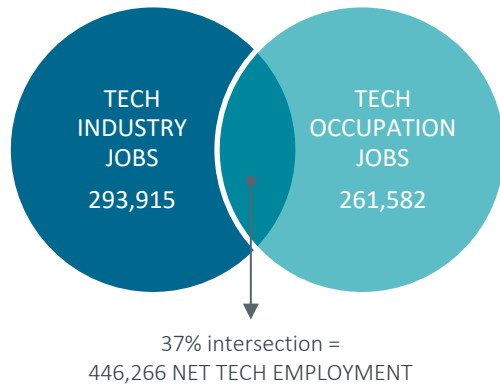
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

446,266 NET TECH EMPLOYMENT<sup>1</sup>  
 4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$70.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.6% ECONOMIC IMPACT AS A % OF OVERALL  
 32,760 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 171,537 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

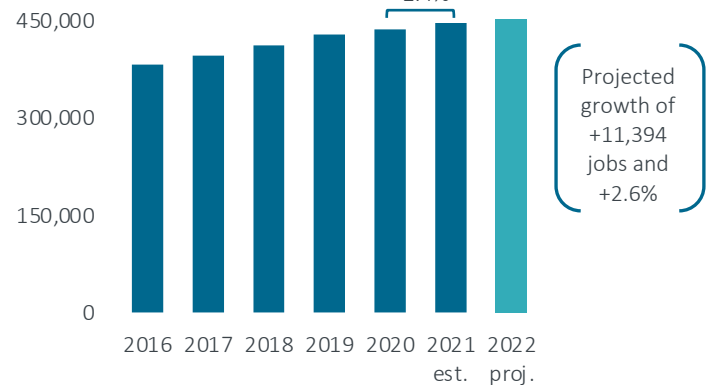


4<sup>th</sup> NET TECH EMPLOYMENT RANK  
 2<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 10<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

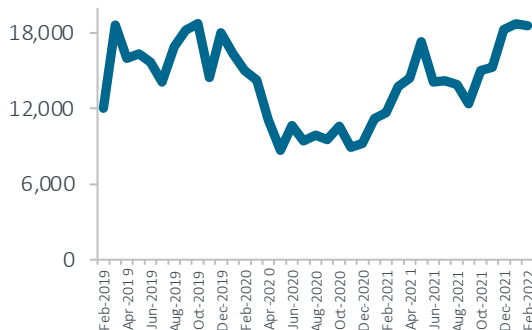


### NET TECH EMPLOYMENT +10,522 jobs +2.4%



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



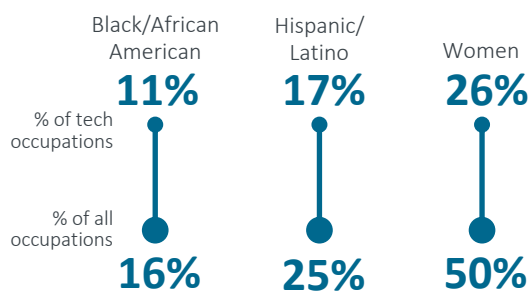
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	88,917	4.5%
IT Support Specialist and Repair Technicians	49,355	1.9%
Cybersecurity and Systems Engineers	39,186	3.1%
Network Engineers, Architects and Support	35,038	2.2%
Emerging Tech, IT Project Mgt. and Other	12,373	3.9%
Database, Data Science and CS	11,499	3.5%

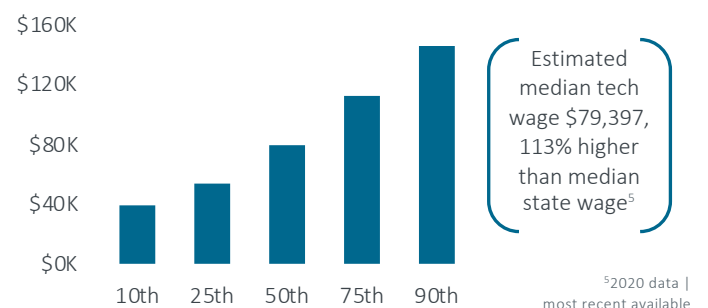
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

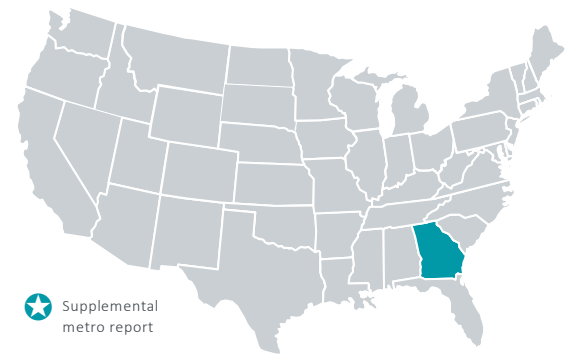
### TECH OCCUPATION WAGES [by percentile]



# Georgia

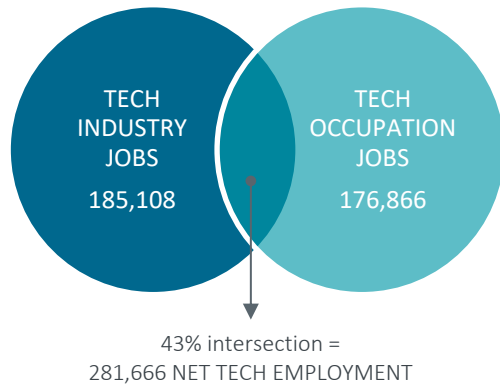
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

281,666 NET TECH EMPLOYMENT<sup>1</sup>  
 6.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$53.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.3% ECONOMIC IMPACT AS A % OF OVERALL  
 16,369 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 152,473 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

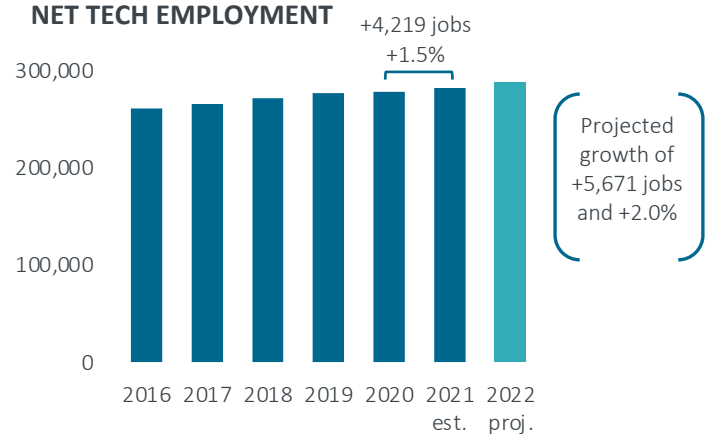


10<sup>th</sup> NET TECH EMPLOYMENT RANK  
 6<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 36<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

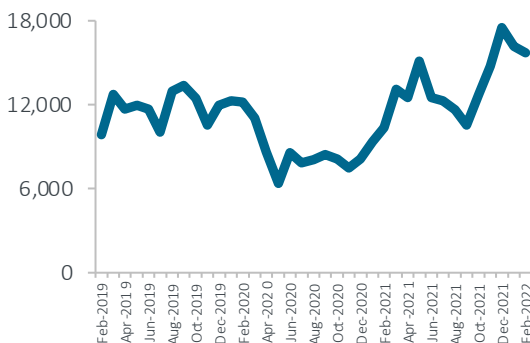


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



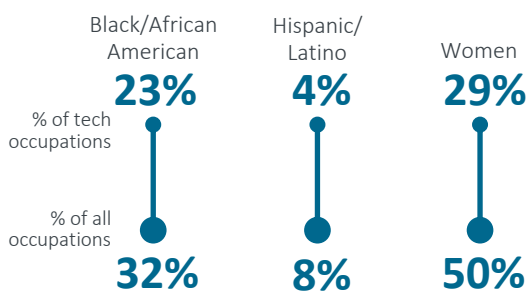
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	60,863	3.8%
IT Support Specialist and Repair Technicians	25,517	1.9%
Cybersecurity and Systems Engineers	24,076	2.5%
Network Engineers, Architects and Support	21,125	1.6%
Emerging Tech, IT Project Mgt. and Other	19,320	2.1%
Database, Data Science and CS	8,566	2.9%

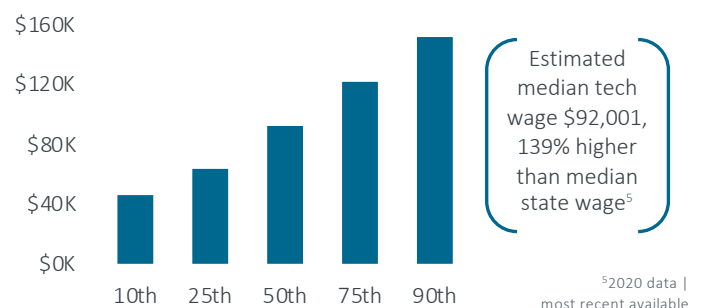
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

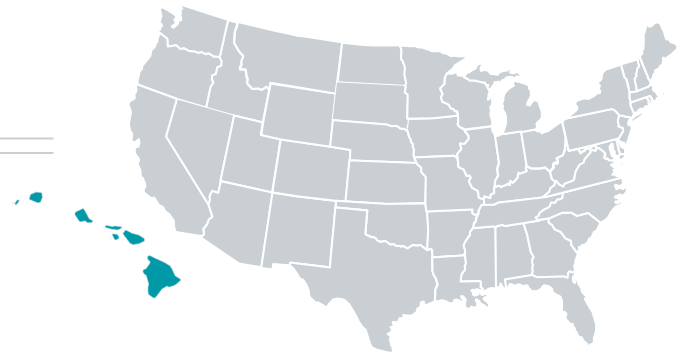
### TECH OCCUPATION WAGES [by percentile]



# Hawaii

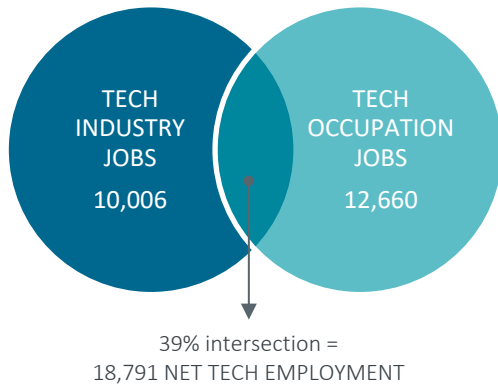
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

18,791 NET TECH EMPLOYMENT<sup>1</sup>  
 3.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.5% ECONOMIC IMPACT AS A % OF OVERALL  
 1,860 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 9,123 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

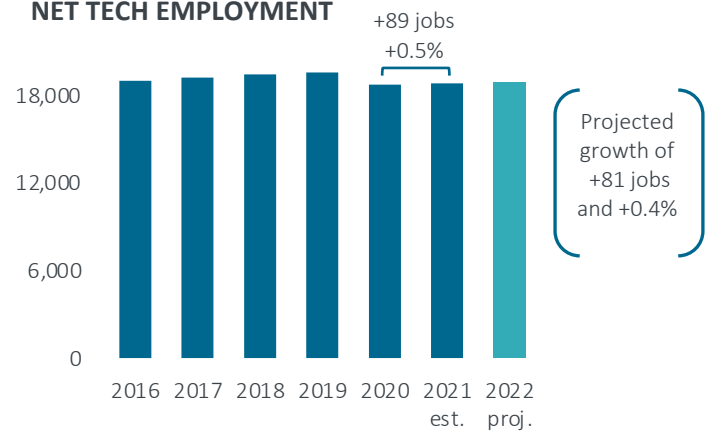


45<sup>th</sup> NET TECH EMPLOYMENT RANK  
 42<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 18<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

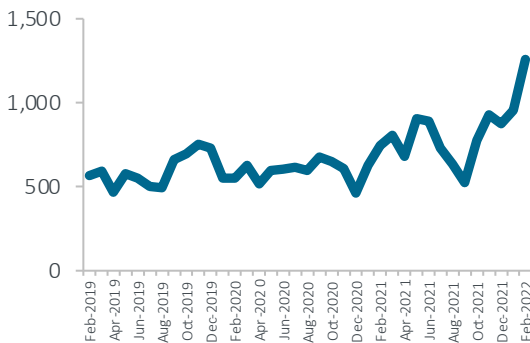


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



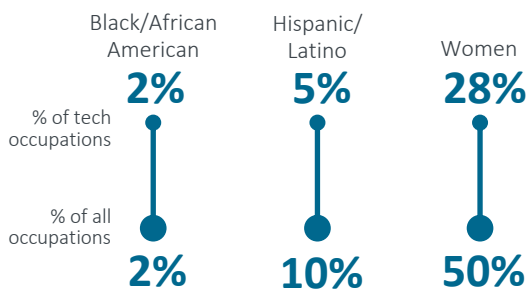
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	2,813	1.6%
Network Engineers, Architects and Support	2,277	-0.5%
Cybersecurity and Systems Engineers	2,219	0.5%
Emerging Tech, IT Project Mgt. and Other	1,897	1.8%
IT Support Specialist and Repair Technicians	1,775	-0.4%
Database, Data Science and CS	454	1.3%

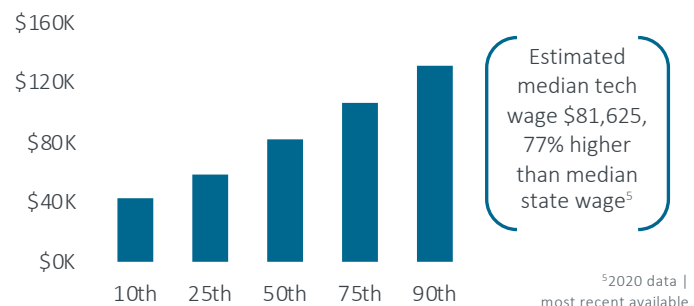
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

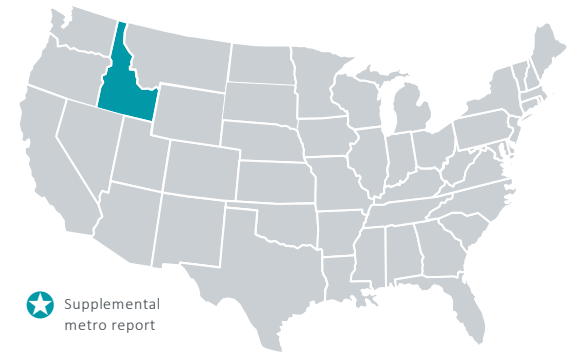


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Idaho

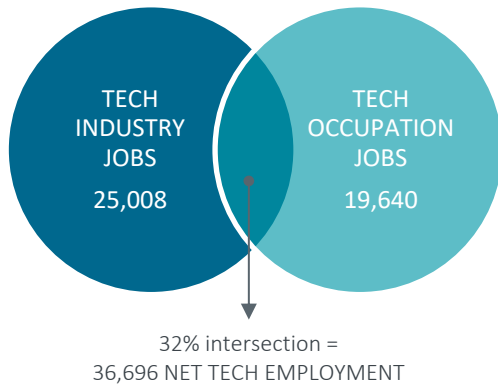


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

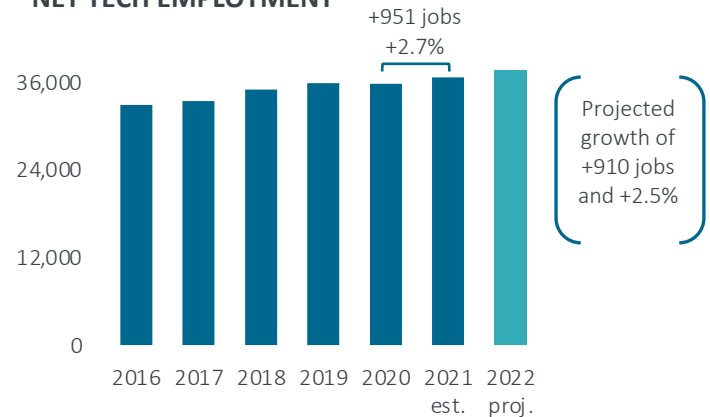
36,696 NET TECH EMPLOYMENT<sup>1</sup>  
 4.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$5.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.9% ECONOMIC IMPACT AS A % OF OVERALL  
 3,532 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 20,502 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

38<sup>th</sup> NET TECH EMPLOYMENT RANK  
 22<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 2<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

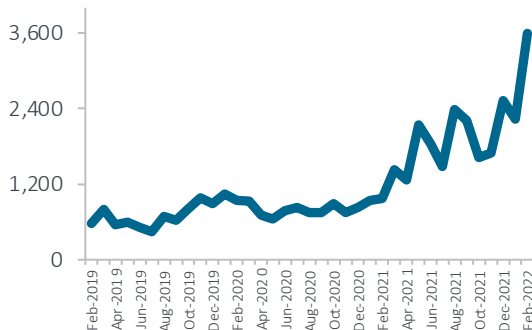


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



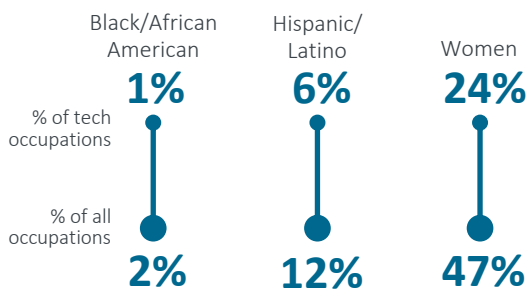
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	6,953	5.0%
IT Support Specialist and Repair Technicians	4,304	2.2%
Cybersecurity and Systems Engineers	2,569	3.9%
Network Engineers, Architects and Support	2,316	3.1%
Emerging Tech, IT Project Mgt. and Other	936	4.5%
Database, Data Science and CS	629	4.3%

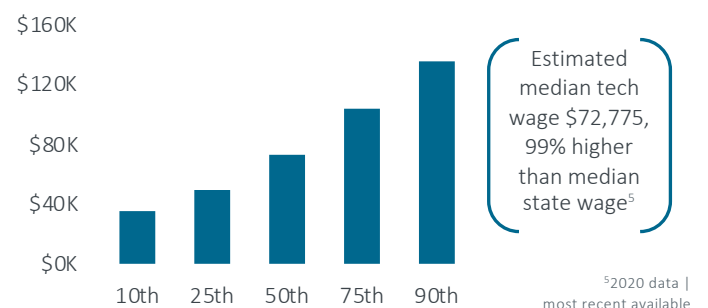
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



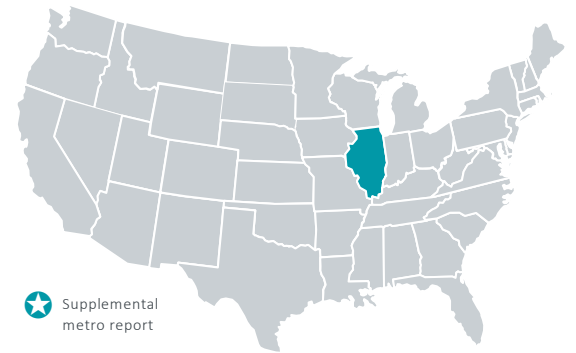
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Illinois

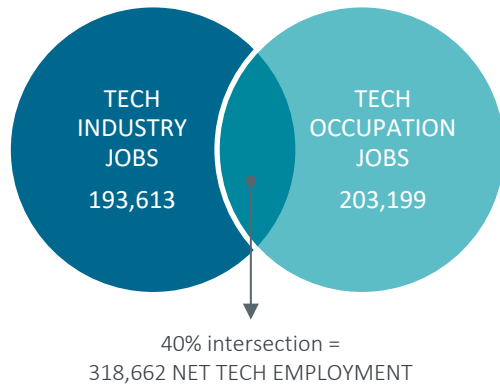


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

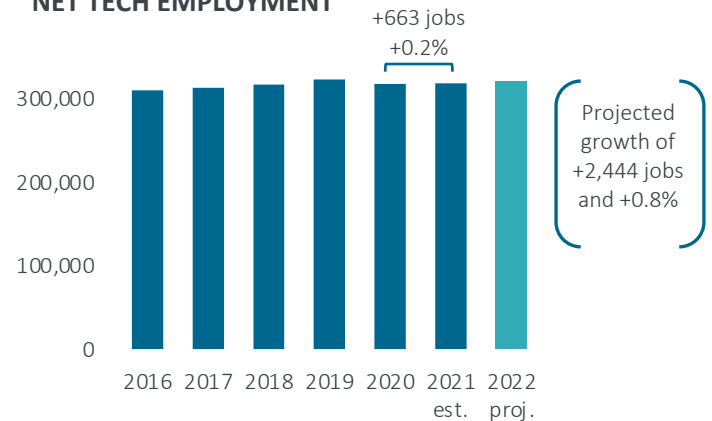
318,662 NET TECH EMPLOYMENT<sup>1</sup>  
 5.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$52.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.5% ECONOMIC IMPACT AS A % OF OVERALL  
 20,457 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 150,829 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

7<sup>th</sup> NET TECH EMPLOYMENT RANK  
 28<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 38<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

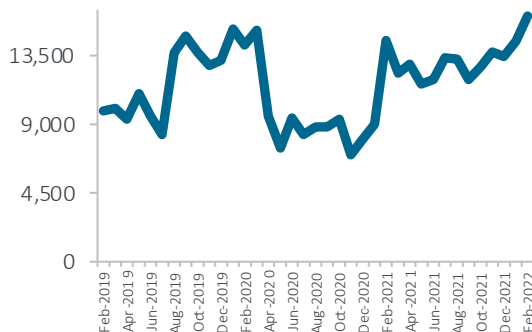


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



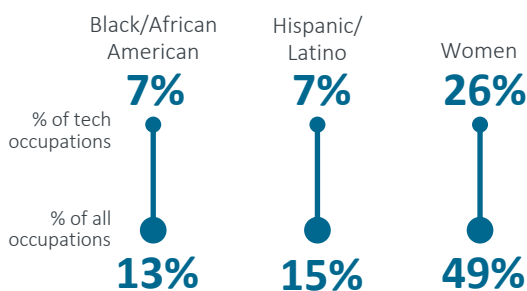
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	70,939	2.2%
Cybersecurity and Systems Engineers	34,492	0.6%
Network Engineers, Architects and Support	29,796	-0.2%
IT Support Specialist and Repair Technicians	24,812	0.5%
Emerging Tech, IT Project Mgt. and Other	11,268	1.0%
Database, Data Science and CS	9,222	1.6%

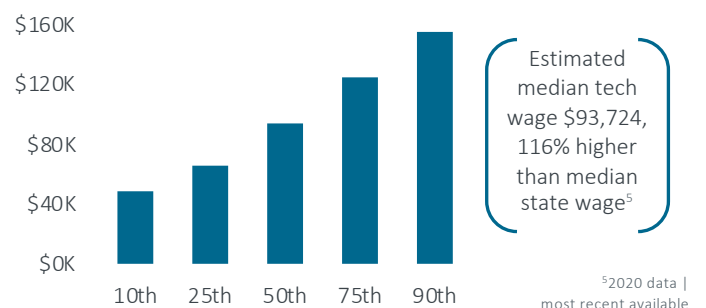
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



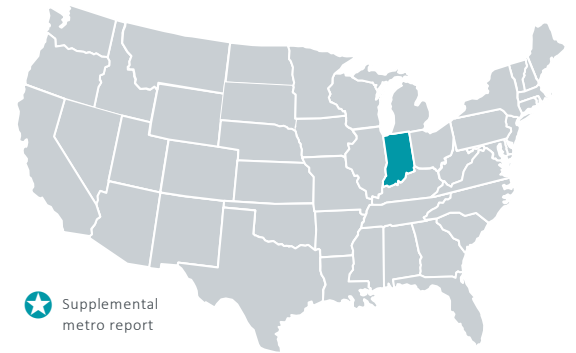
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Indiana

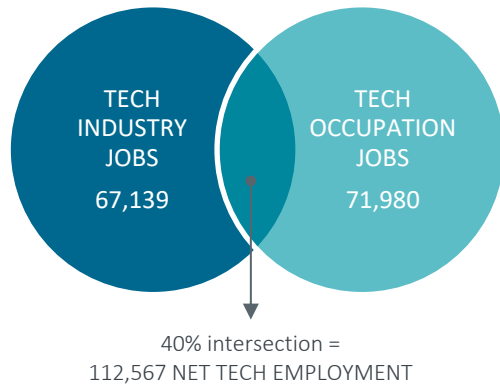


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

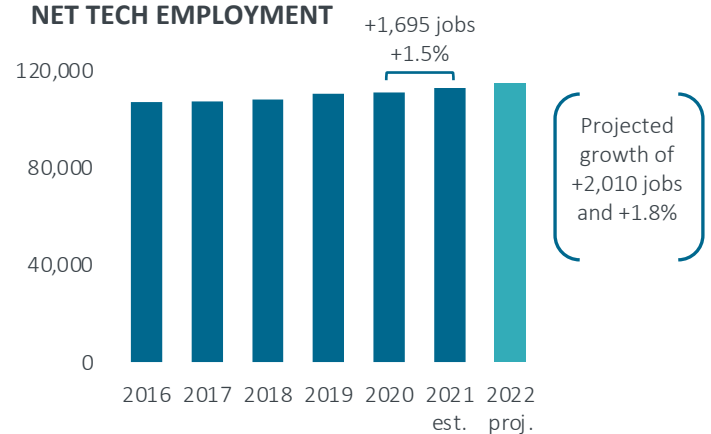
112,567 NET TECH EMPLOYMENT<sup>1</sup>  
 3.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$14.1b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.1% ECONOMIC IMPACT AS A % OF OVERALL  
 7,939 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 42,892 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 24.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

24<sup>th</sup> NET TECH EMPLOYMENT RANK  
 16<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 32<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

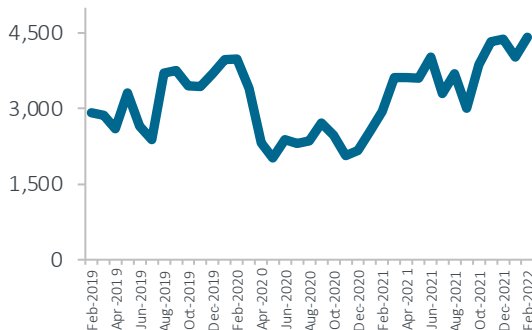


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



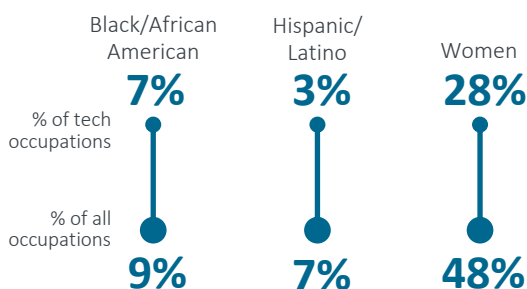
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	23,146	3.1%
IT Support Specialist and Repair Technicians	13,119	0.9%
Network Engineers, Architects and Support	11,620	1.0%
Cybersecurity and Systems Engineers	11,065	1.6%
Emerging Tech, IT Project Mgt. and Other	3,796	2.2%
Database, Data Science and CS	2,996	2.5%

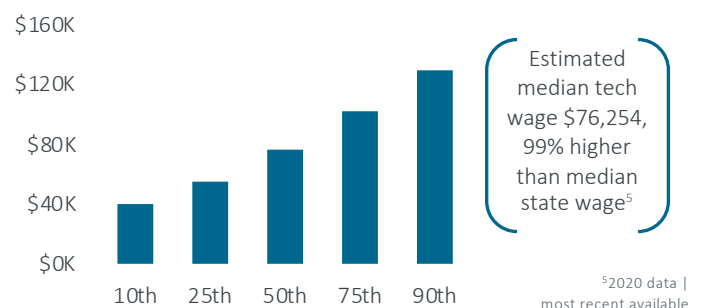
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]



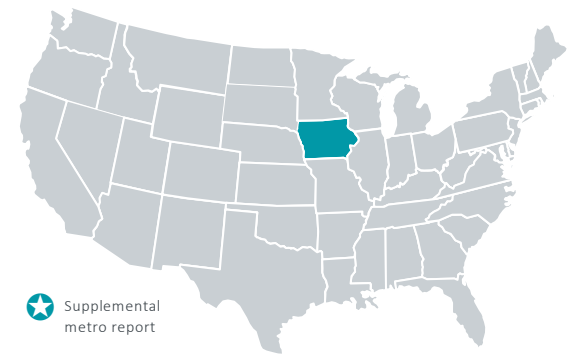
<sup>5</sup>2020 data | most recent available



# Iowa

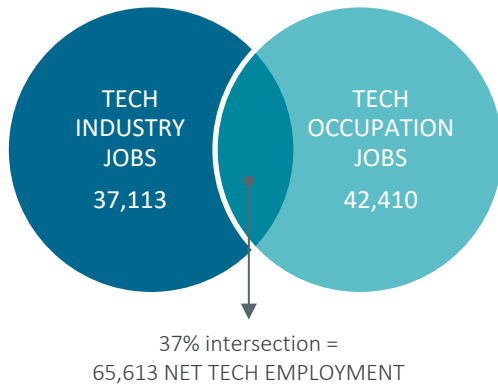
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

65,613 NET TECH EMPLOYMENT<sup>1</sup>  
 4.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$8.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.7% ECONOMIC IMPACT AS A % OF OVERALL  
 4,188 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 28,728 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

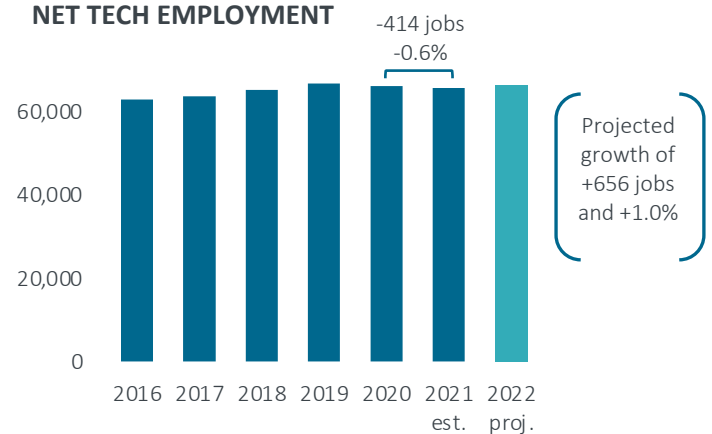


30<sup>th</sup> NET TECH EMPLOYMENT RANK  
 49<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 43<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

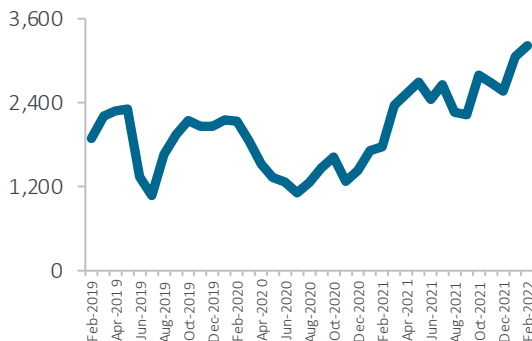


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



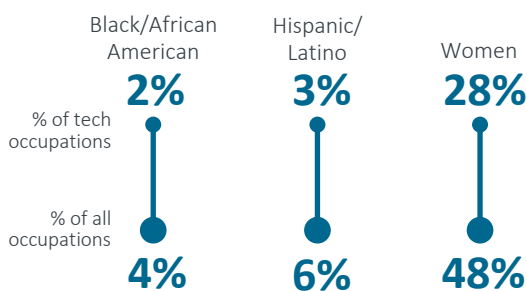
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	14,543	2.4%
Cybersecurity and Systems Engineers	7,335	1.3%
IT Support Specialist and Repair Technicians	6,653	0.5%
Network Engineers, Architects and Support	6,272	0.6%
Emerging Tech, IT Project Mgt. and Other	1,727	2.0%
Database, Data Science and CS	1,724	2.5%

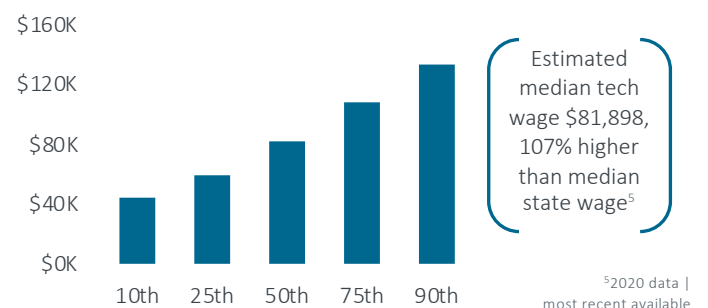
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

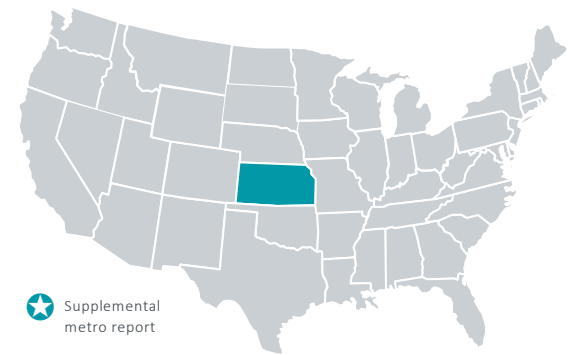
### TECH OCCUPATION WAGES [by percentile]



# Kansas

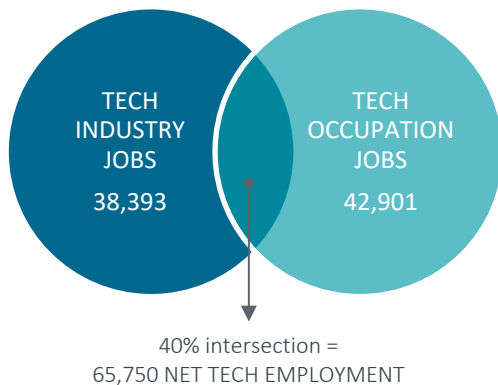
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

65,750 NET TECH EMPLOYMENT<sup>1</sup>  
 4.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$9.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.0% ECONOMIC IMPACT AS A % OF OVERALL  
 4,666 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 25,567 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 21.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

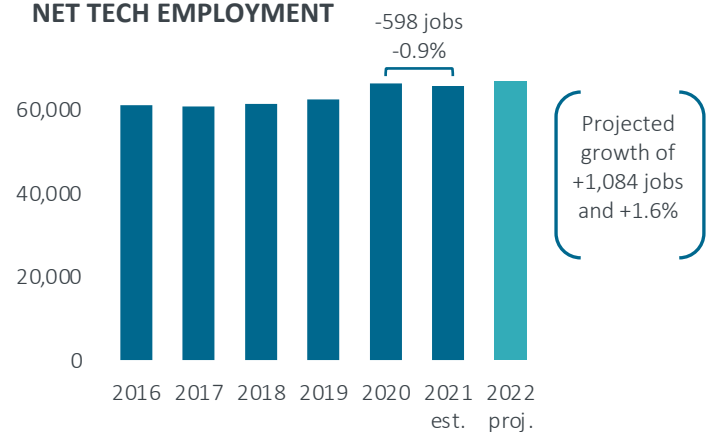


29<sup>th</sup> NET TECH EMPLOYMENT RANK  
 50<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 15<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

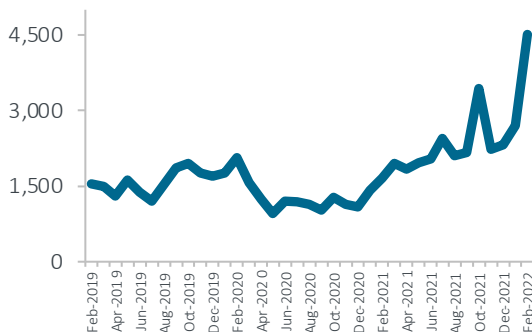


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



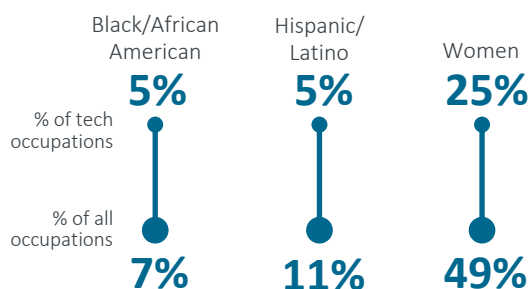
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	14,689	2.2%
IT Support Specialist and Repair Technicians	8,455	0.4%
Network Engineers, Architects and Support	7,205	0.0%
Cybersecurity and Systems Engineers	5,670	0.5%
Emerging Tech, IT Project Mgt. and Other	1,754	2.3%
Database, Data Science and CS	1,349	2.4%

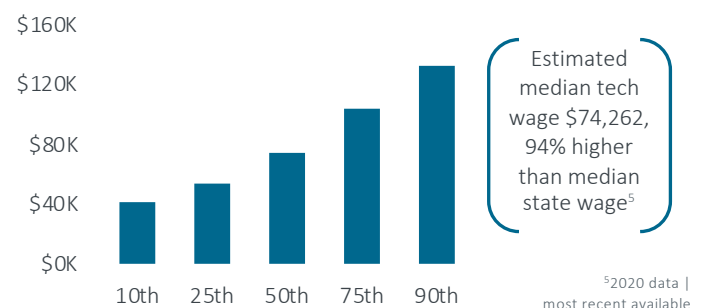
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

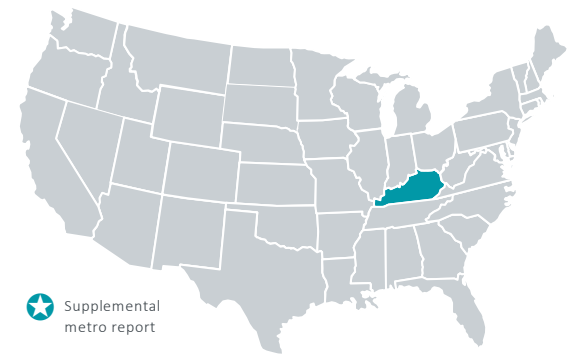
### TECH OCCUPATION WAGES [by percentile]



# Kentucky

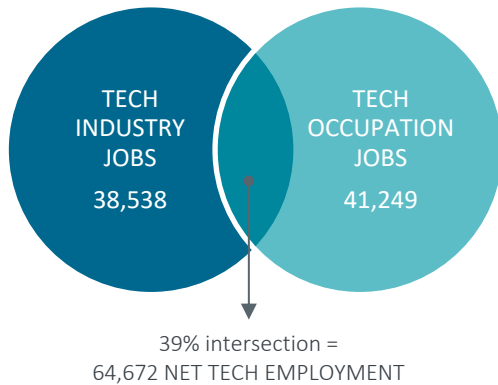
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

64,672 NET TECH EMPLOYMENT<sup>1</sup>  
 3.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$6.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.3% ECONOMIC IMPACT AS A % OF OVERALL  
 5,966 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 23,904 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 24.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

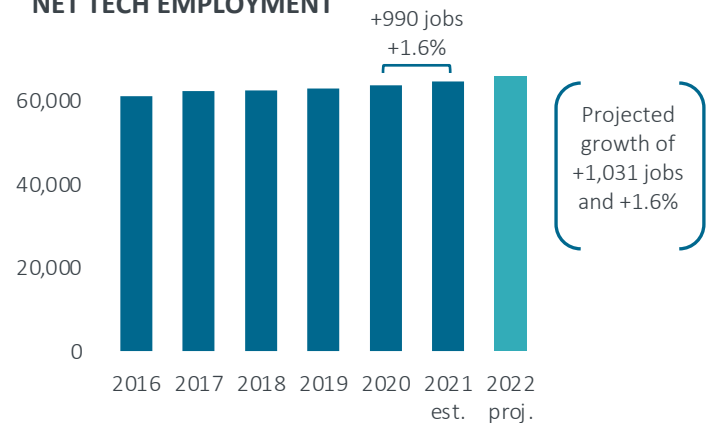


31<sup>st</sup> NET TECH EMPLOYMENT RANK  
 21<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 12<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

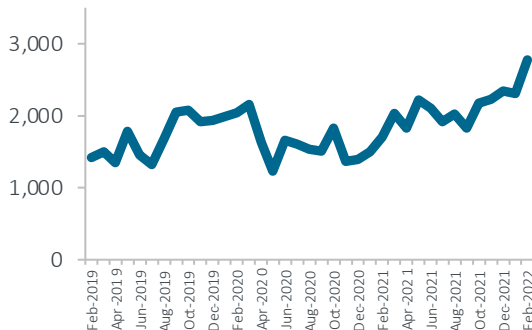


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



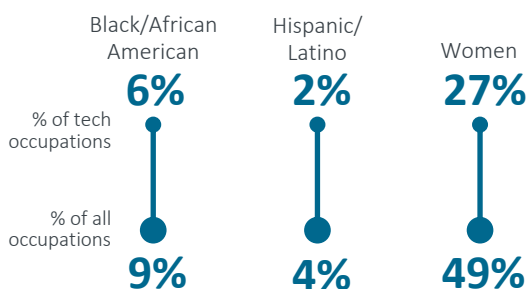
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	12,610	3.4%
IT Support Specialist and Repair Technicians	8,018	0.9%
Network Engineers, Architects and Support	6,967	1.1%
Cybersecurity and Systems Engineers	5,928	1.8%
Emerging Tech, IT Project Mgt. and Other	2,276	2.0%
Database, Data Science and CS	1,996	2.6%

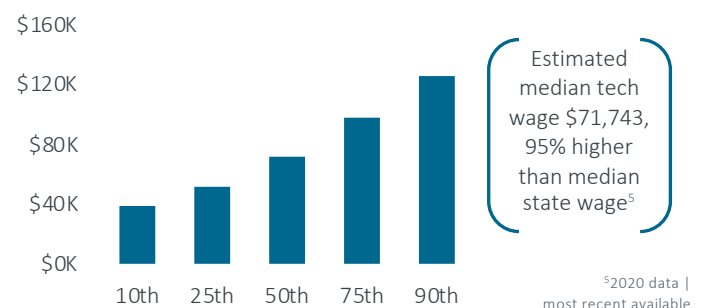
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

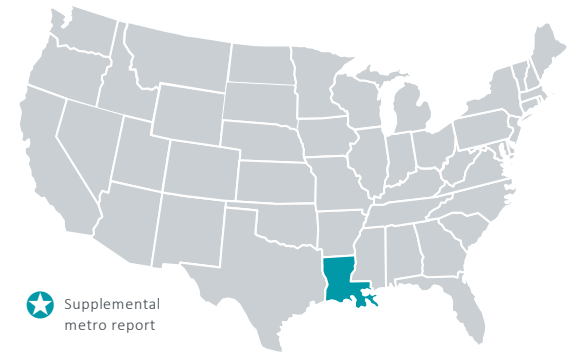


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Louisiana

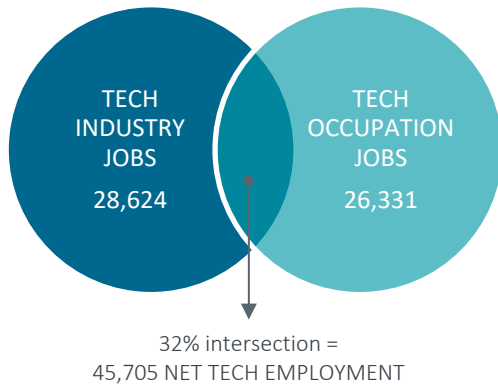


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

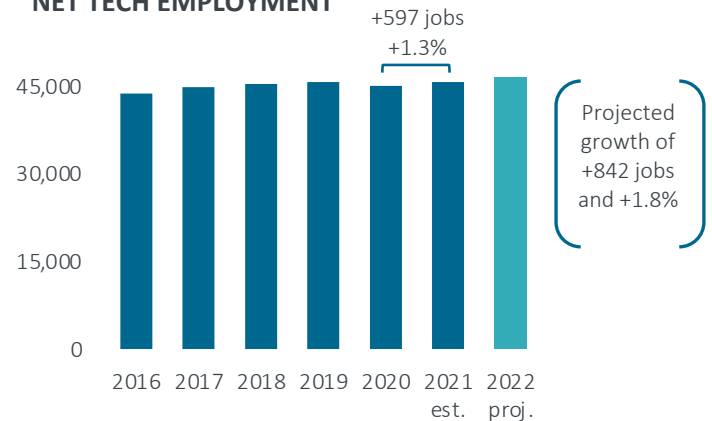
45,705 NET TECH EMPLOYMENT<sup>1</sup>  
 2.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$5.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 2.4% ECONOMIC IMPACT AS A % OF OVERALL  
 4,374 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 20,485 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 19.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

35<sup>th</sup> NET TECH EMPLOYMENT RANK  
 29<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 22<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

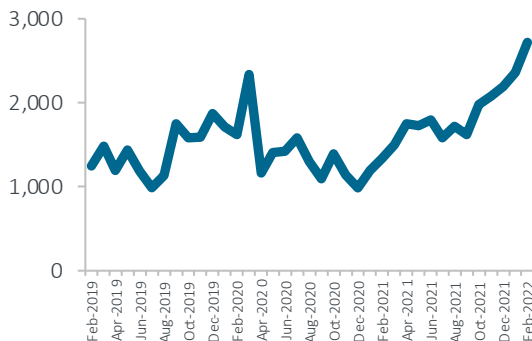


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



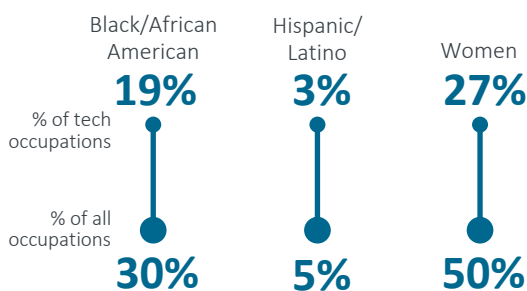
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	6,673	4.1%
Emerging Tech, IT Project Mgt. and Other	4,394	1.4%
IT Support Specialist and Repair Technicians	4,356	1.6%
Network Engineers, Architects and Support	3,931	1.2%
Cybersecurity and Systems Engineers	3,447	2.5%
Database, Data Science and CS	933	3.3%

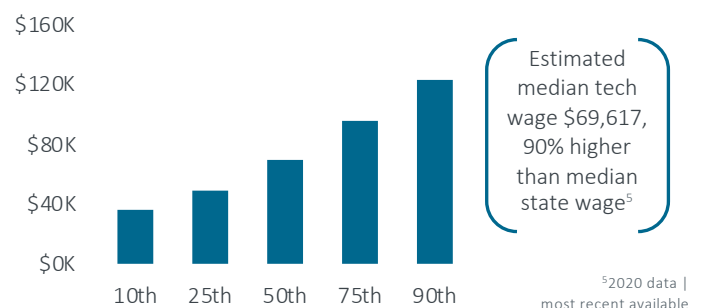
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



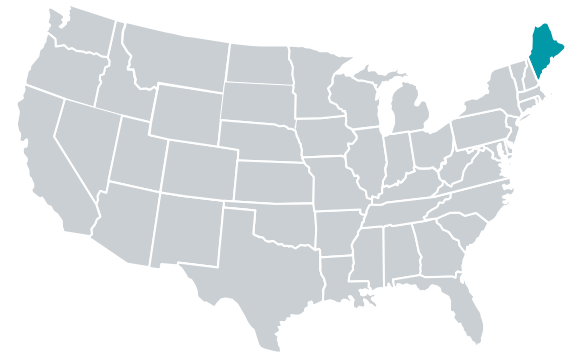
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Maine

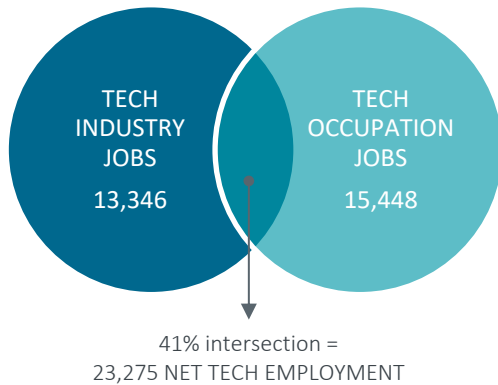


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

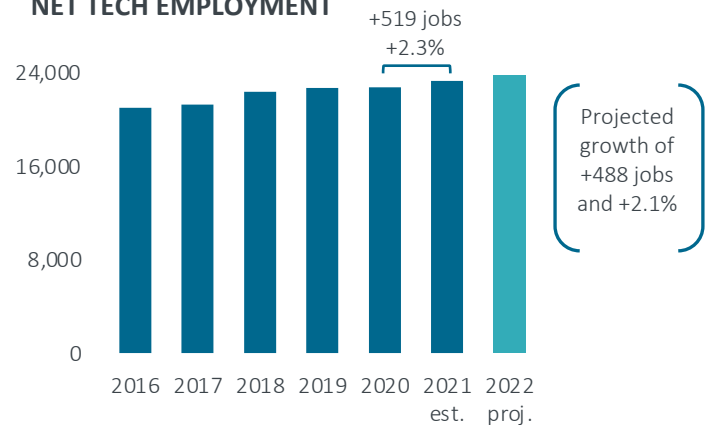
23,275 NET TECH EMPLOYMENT<sup>1</sup>  
 3.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.0% ECONOMIC IMPACT AS A % OF OVERALL  
 2,528 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 5,878 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

42<sup>nd</sup> NET TECH EMPLOYMENT RANK  
 32<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 45<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

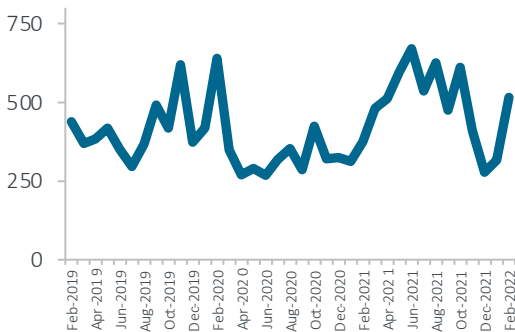


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



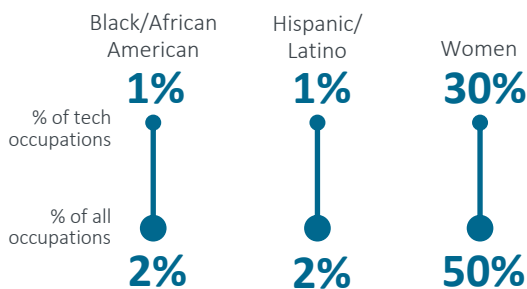
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	4,394	3.7%
IT Support Specialist and Repair Technicians	2,660	1.1%
Cybersecurity and Systems Engineers	2,526	2.1%
Network Engineers, Architects and Support	2,397	1.3%
Emerging Tech, IT Project Mgt. and Other	942	3.0%
Database, Data Science and CS	688	3.7%

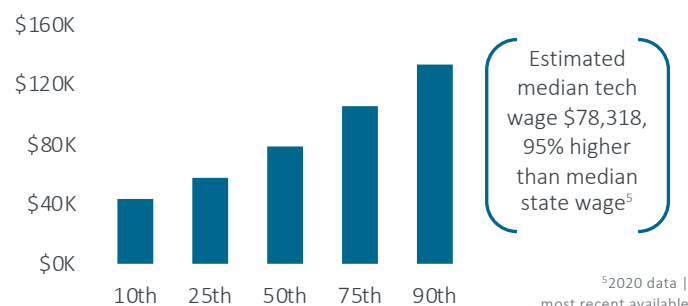
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



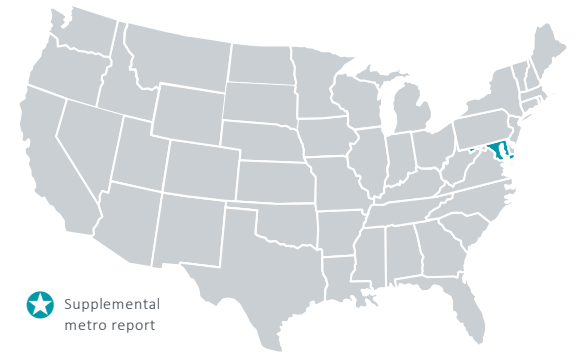
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Maryland

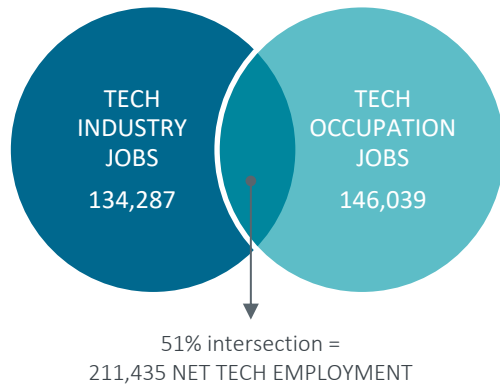


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

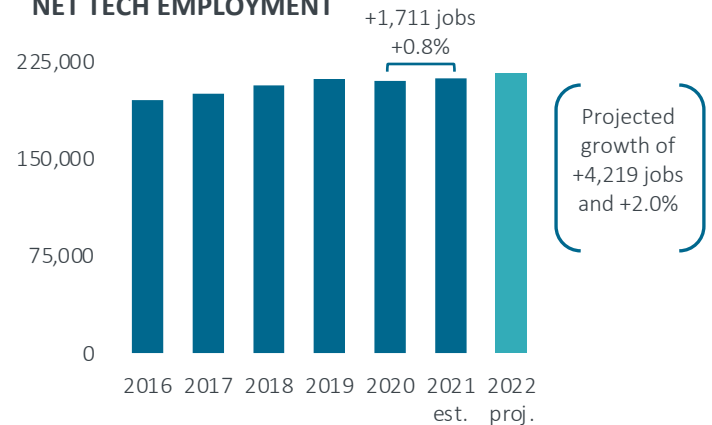
211,435 NET TECH EMPLOYMENT<sup>1</sup>  
 7.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$36.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.6% ECONOMIC IMPACT AS A % OF OVERALL  
 12,871 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 82,210 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

15<sup>th</sup> NET TECH EMPLOYMENT RANK  
 15<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 51<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

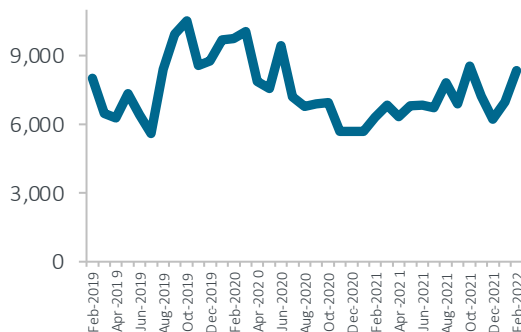


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



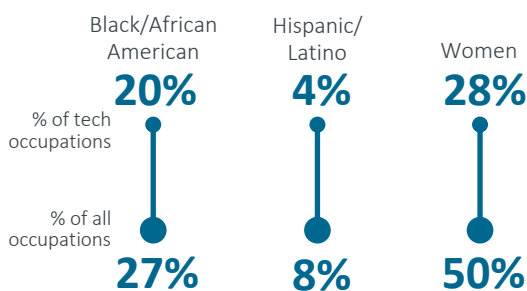
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	43,382	3.4%
Network Engineers, Architects and Support	26,449	0.8%
Cybersecurity and Systems Engineers	22,977	2.2%
Emerging Tech, IT Project Mgt. and Other	16,342	2.2%
IT Support Specialist and Repair Technicians	13,845	1.4%
Database, Data Science and CS	7,992	2.7%

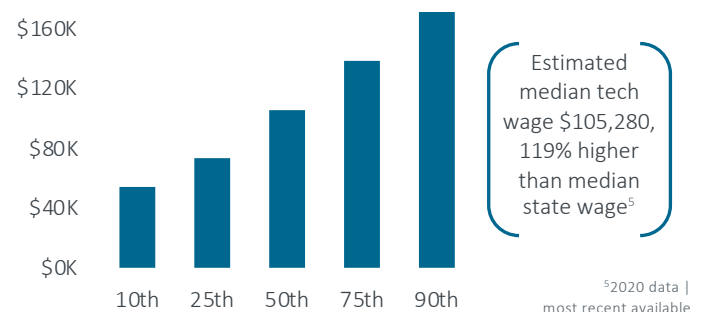
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

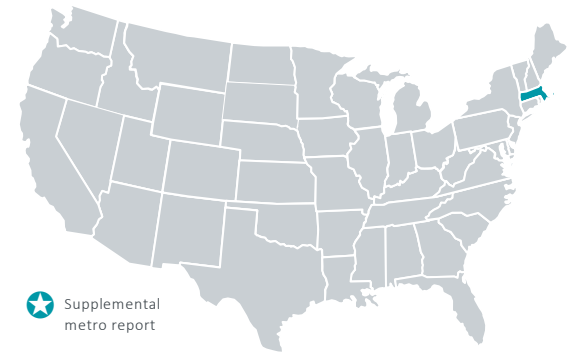


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Massachusetts

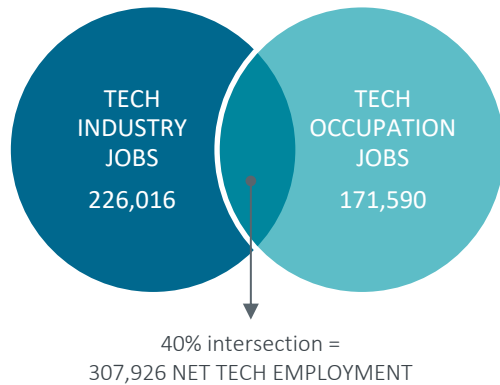


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

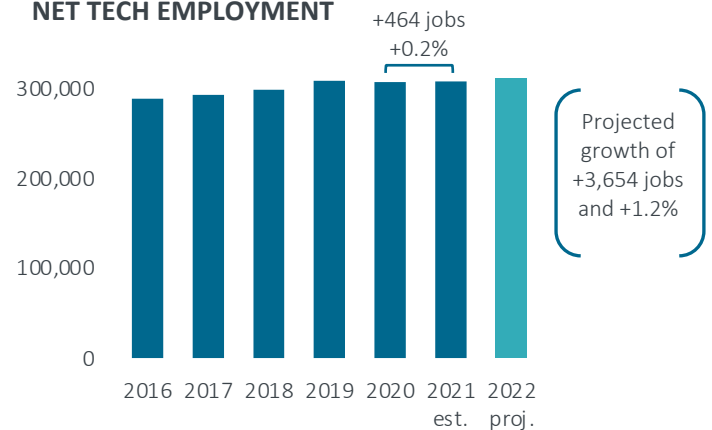
307,926 NET TECH EMPLOYMENT<sup>1</sup>  
 8.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$76.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 13.7% ECONOMIC IMPACT AS A % OF OVERALL  
 15,380 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 112,318 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 42.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

8<sup>th</sup> NET TECH EMPLOYMENT RANK  
 34<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 23<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

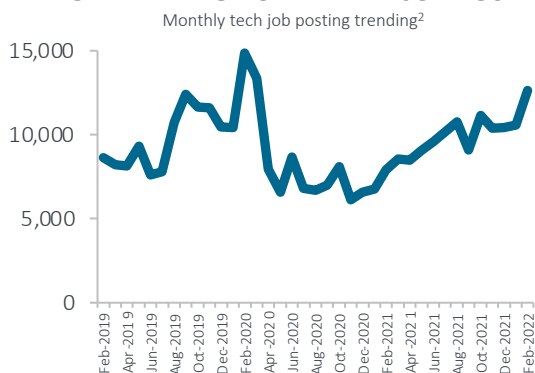
<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



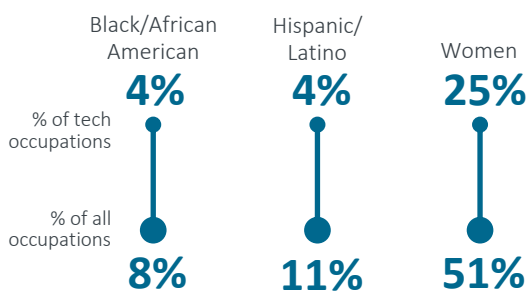
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	72,547	2.6%
IT Support Specialist and Repair Technicians	21,789	0.7%
Cybersecurity and Systems Engineers	21,662	1.8%
Network Engineers, Architects and Support	17,728	0.9%
Emerging Tech, IT Project Mgt. and Other	9,318	1.5%
Database, Data Science and CS	5,746	2.6%

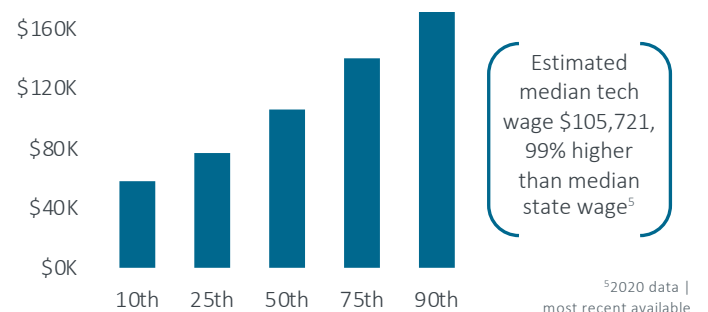
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



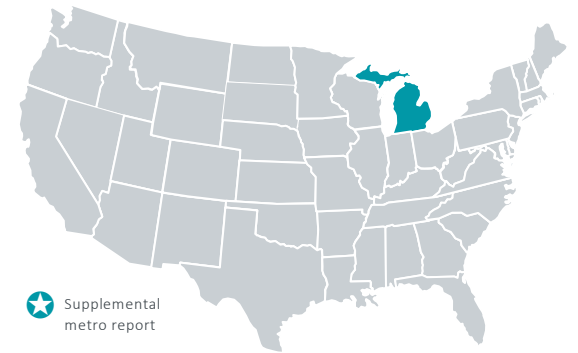
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]





# Michigan

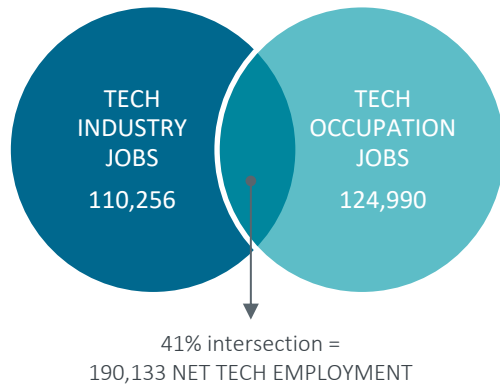


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

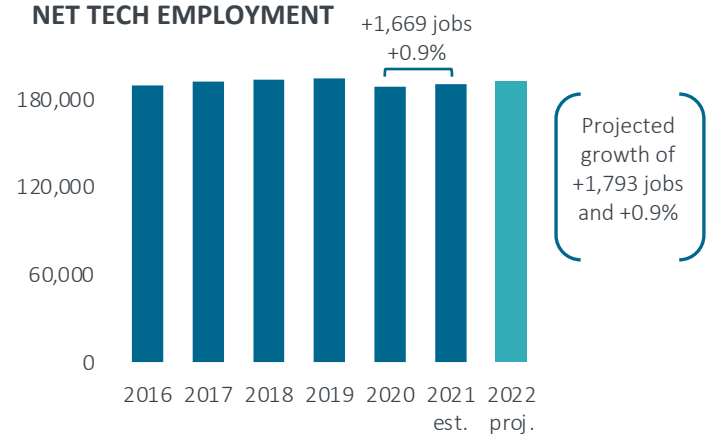
190,133 NET TECH EMPLOYMENT<sup>1</sup>  
 4.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$22.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.6% ECONOMIC IMPACT AS A % OF OVERALL  
 11,453 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 90,034 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 28.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

17<sup>th</sup> NET TECH EMPLOYMENT RANK  
 18<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 31<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

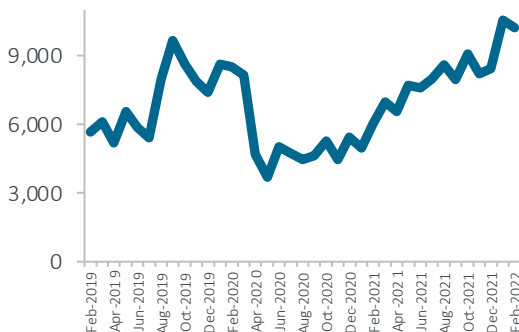


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



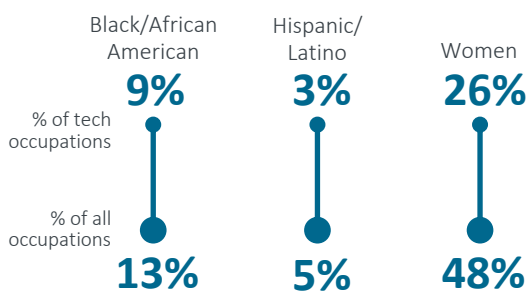
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	47,294	2.1%
IT Support Specialist and Repair Technicians	22,059	0.0%
Cybersecurity and Systems Engineers	17,836	0.7%
Network Engineers, Architects and Support	12,330	0.5%
Emerging Tech, IT Project Mgt. and Other	8,244	1.0%
Database, Data Science and CS	4,693	2.3%

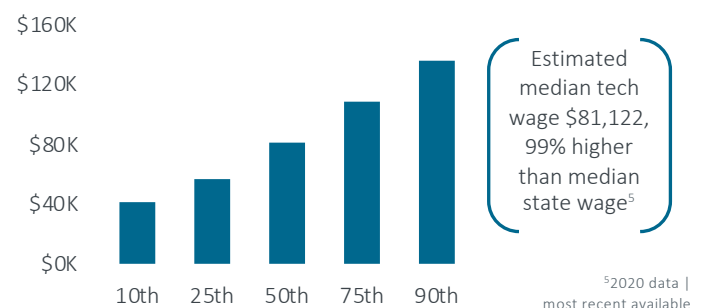
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



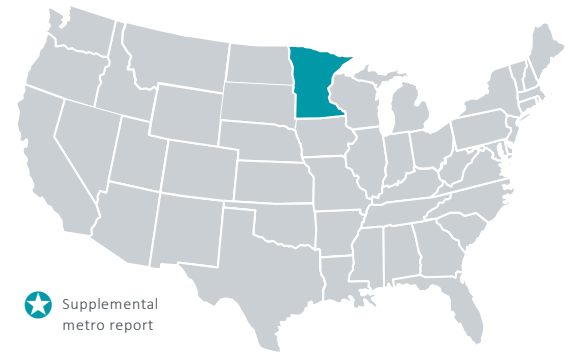
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Minnesota

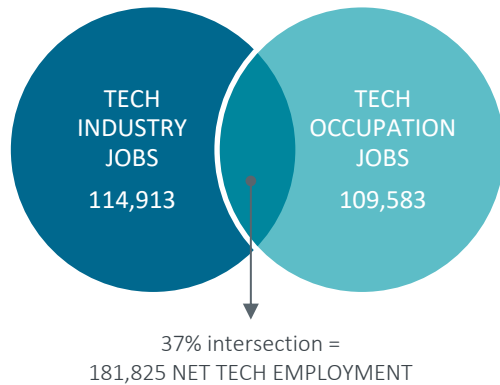


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

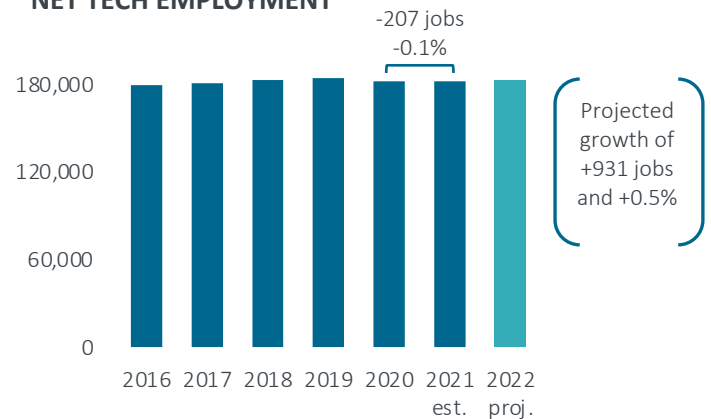
181,825 NET TECH EMPLOYMENT<sup>1</sup>  
 6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$29.1b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.1% ECONOMIC IMPACT AS A % OF OVERALL  
 10,291 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 75,666 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

18<sup>th</sup> NET TECH EMPLOYMENT RANK  
 47<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 30<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

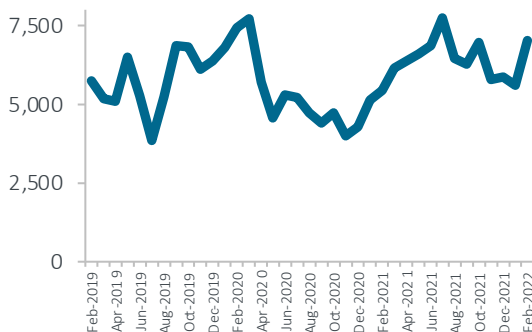


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



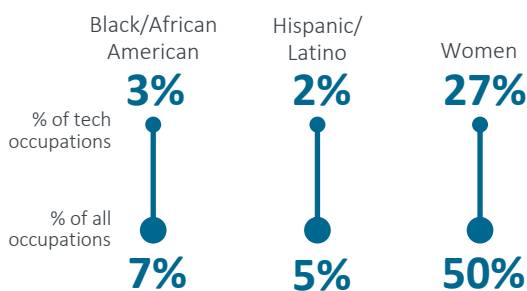
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	40,232	1.9%
Cybersecurity and Systems Engineers	20,904	0.7%
IT Support Specialist and Repair Technicians	14,556	0.3%
Network Engineers, Architects and Support	13,829	0.2%
Emerging Tech, IT Project Mgt. and Other	4,700	1.2%
Database, Data Science and CS	4,030	1.7%

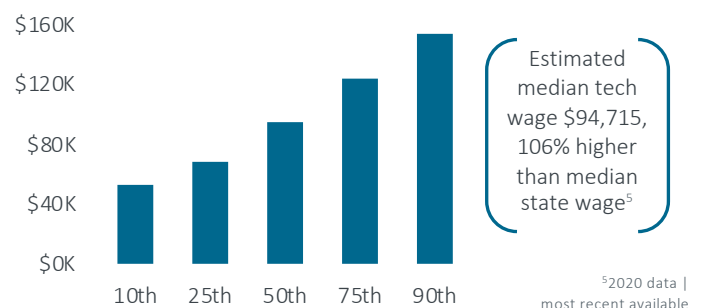
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]

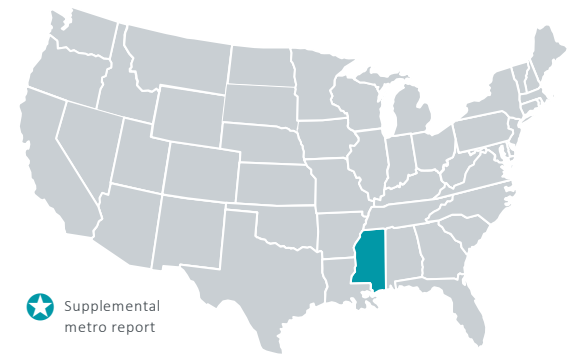


<sup>5</sup>2020 data | most recent available

# Mississippi

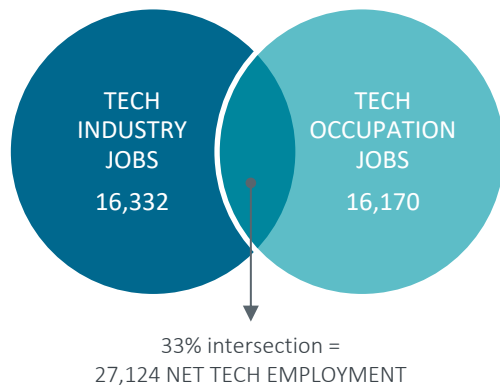
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

27,124 NET TECH EMPLOYMENT<sup>1</sup>  
 2.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.0% ECONOMIC IMPACT AS A % OF OVERALL  
 2,653 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 10,088 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 21.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

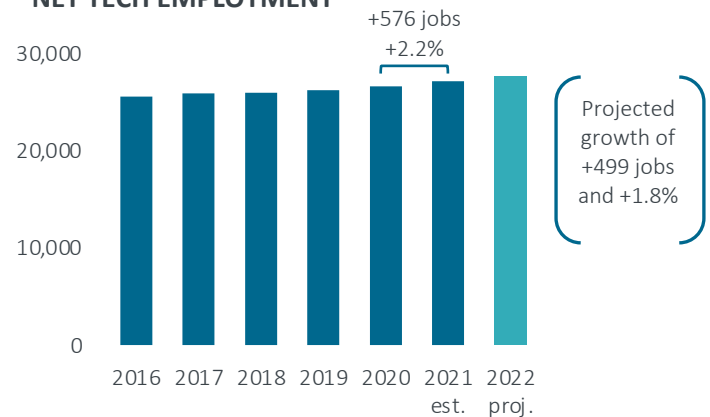


40<sup>th</sup> NET TECH EMPLOYMENT RANK  
 30<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 37<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

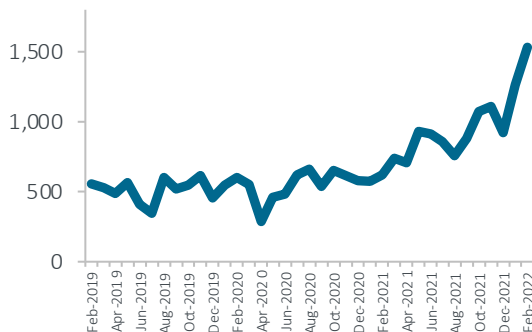


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



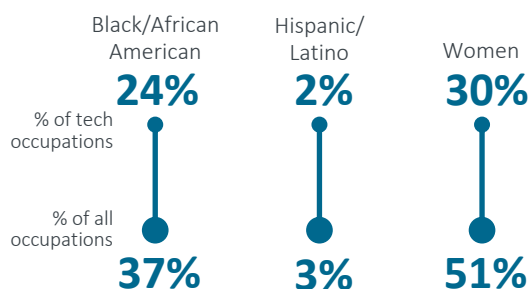
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	4,253	4.1%
IT Support Specialist and Repair Technicians	3,202	2.1%
Network Engineers, Architects and Support	2,847	0.8%
Cybersecurity and Systems Engineers	2,586	2.2%
Emerging Tech, IT Project Mgt. and Other	1,155	2.5%
Database, Data Science and CS	837	2.5%

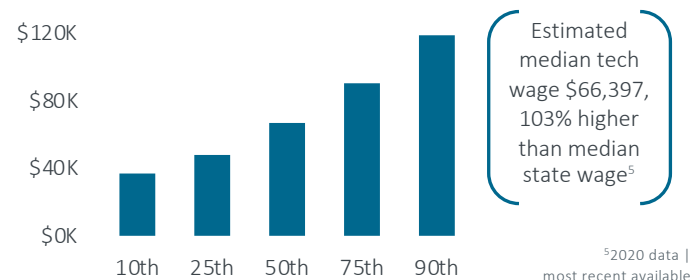
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]

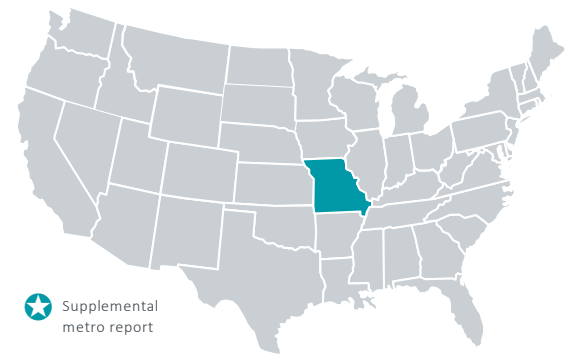


<sup>5</sup>2020 data | most recent available

# Missouri

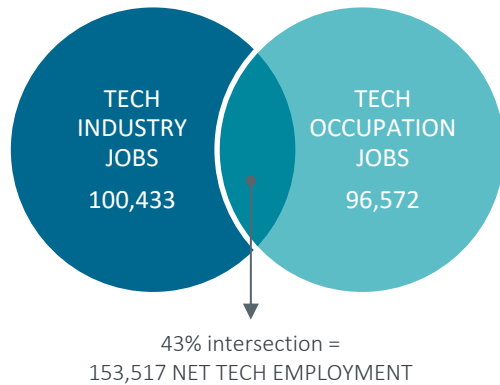
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

153,517 NET TECH EMPLOYMENT<sup>1</sup>  
 5.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$21.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.8% ECONOMIC IMPACT AS A % OF OVERALL  
 9,356 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 56,696 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 24.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

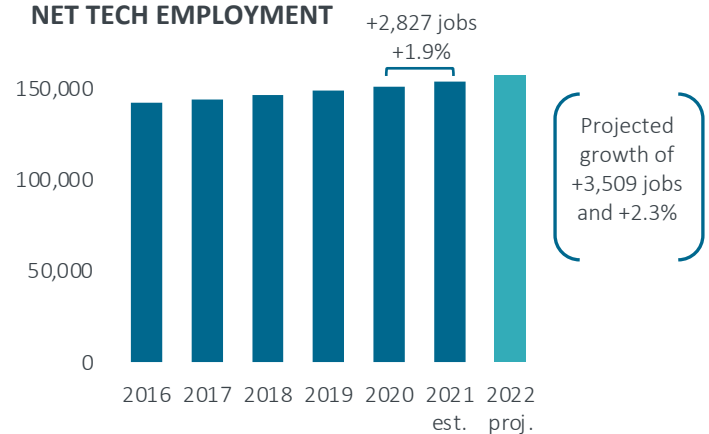


19<sup>th</sup> NET TECH EMPLOYMENT RANK  
 11<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 24<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

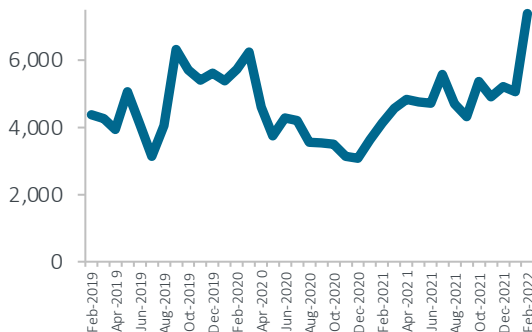


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



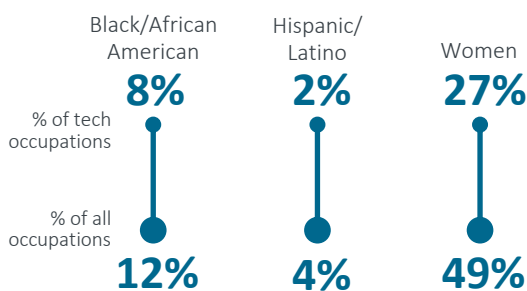
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	32,755	3.5%
IT Support Specialist and Repair Technicians	15,928	1.1%
Network Engineers, Architects and Support	15,440	0.8%
Cybersecurity and Systems Engineers	13,416	2.0%
Emerging Tech, IT Project Mgt. and Other	6,103	2.1%
Database, Data Science and CS	4,605	1.7%

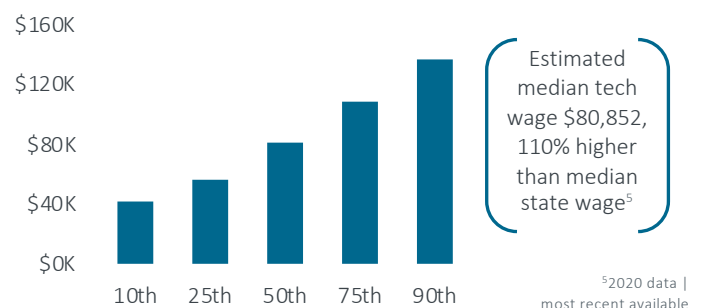
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

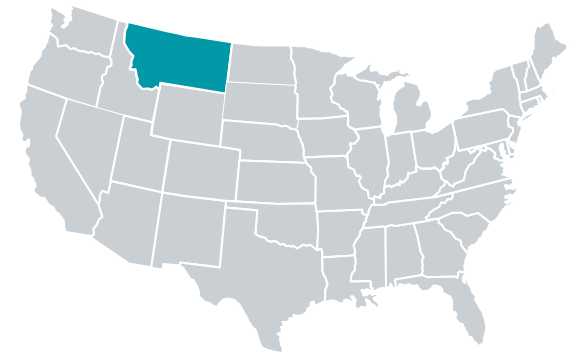


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Montana

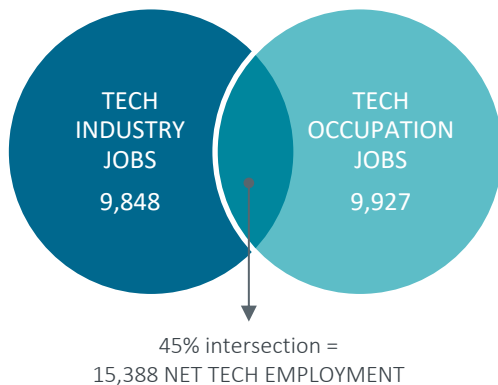


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

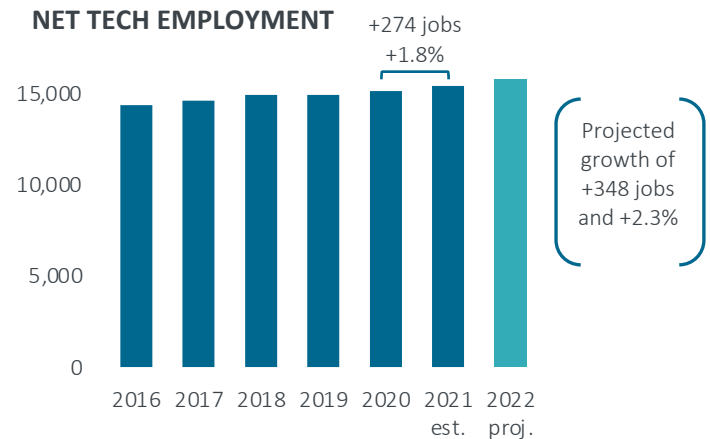
15,388 NET TECH EMPLOYMENT<sup>1</sup>  
 2.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.9% ECONOMIC IMPACT AS A % OF OVERALL  
 2,338 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 6,098 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 19.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

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

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

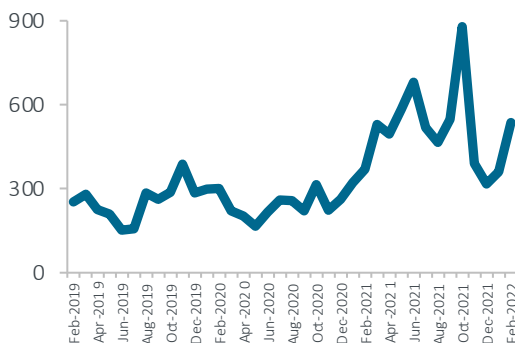


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



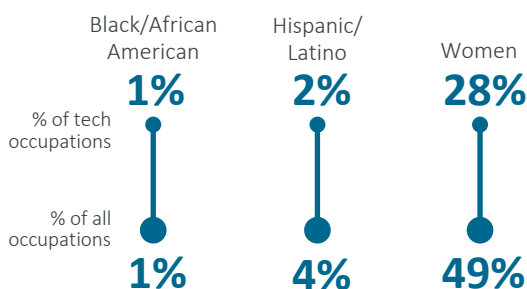
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	3,252	3.9%
IT Support Specialist and Repair Technicians	2,244	1.0%
Network Engineers, Architects and Support	1,575	0.8%
Cybersecurity and Systems Engineers	893	3.3%
Emerging Tech, IT Project Mgt. and Other	658	2.9%
Database, Data Science and CS	358	3.8%

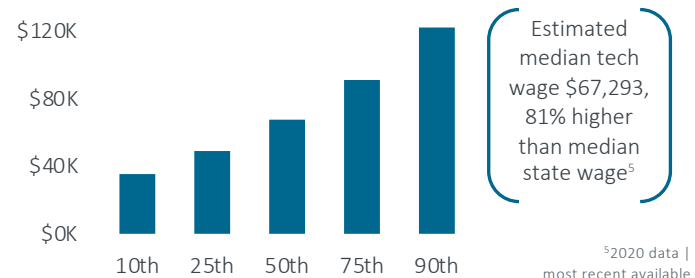
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

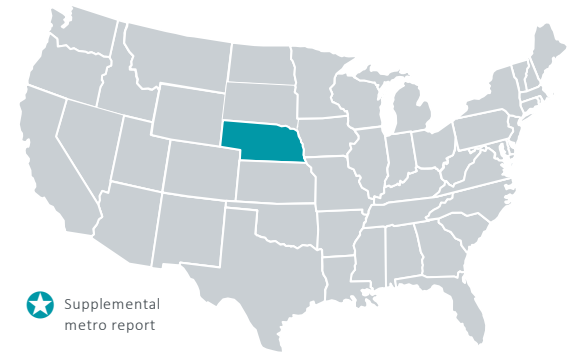


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Nebraska

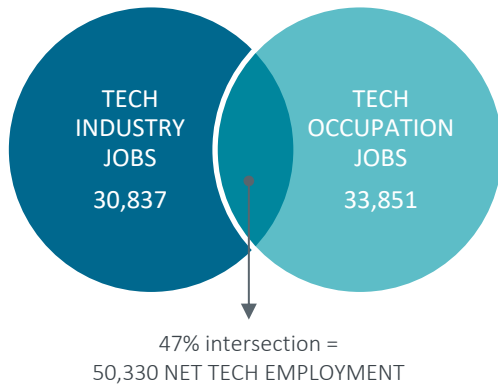


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

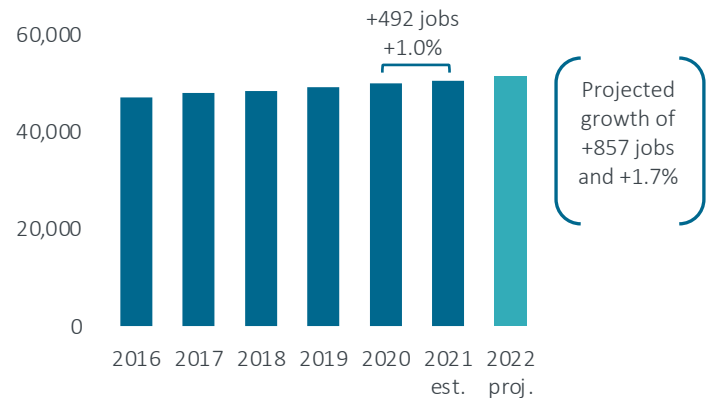
50,330 NET TECH EMPLOYMENT<sup>1</sup>  
 4.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$6.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.4% ECONOMIC IMPACT AS A % OF OVERALL  
 3,241 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 19,733 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

34<sup>th</sup> NET TECH EMPLOYMENT RANK  
 33<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 3<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

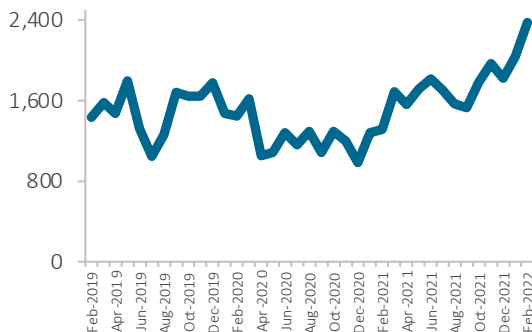


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



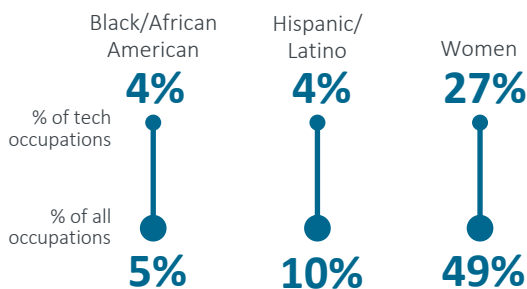
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	11,361	3.4%
Network Engineers, Architects and Support	5,100	0.7%
Cybersecurity and Systems Engineers	4,737	1.3%
IT Support Specialist and Repair Technicians	4,044	1.5%
Emerging Tech, IT Project Mgt. and Other	3,535	1.0%
Database, Data Science and CS	1,516	1.6%

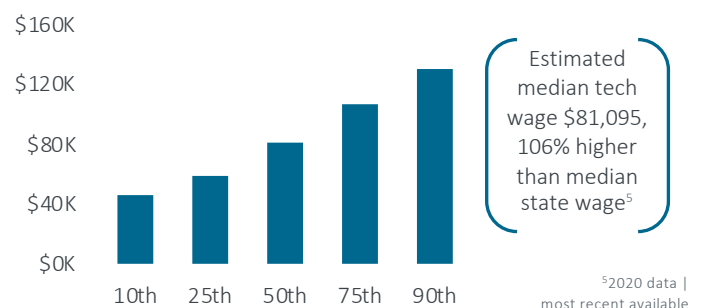
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

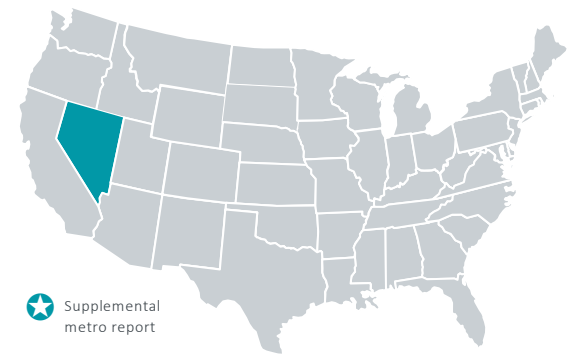


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Nevada

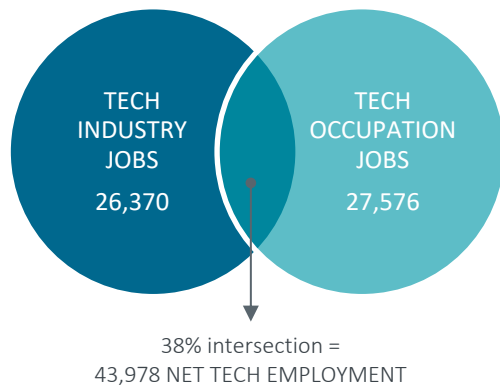


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

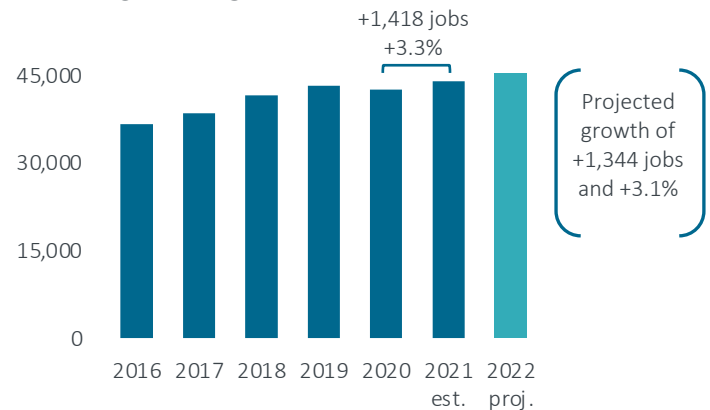
43,978 NET TECH EMPLOYMENT<sup>1</sup>  
 3.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$7.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.7% ECONOMIC IMPACT AS A % OF OVERALL  
 4,220 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 24,194 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

36<sup>th</sup> NET TECH EMPLOYMENT RANK  
 19<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 48<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

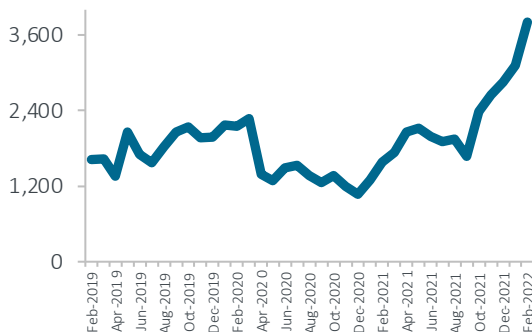


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



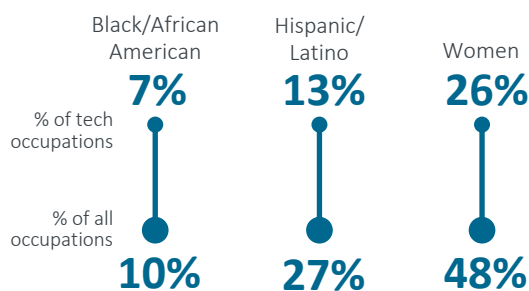
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	8,499	4.8%
IT Support Specialist and Repair Technicians	7,312	1.2%
Network Engineers, Architects and Support	3,546	2.5%
Cybersecurity and Systems Engineers	2,655	4.1%
Emerging Tech, IT Project Mgt. and Other	2,172	3.2%
Database, Data Science and CS	1,015	3.2%

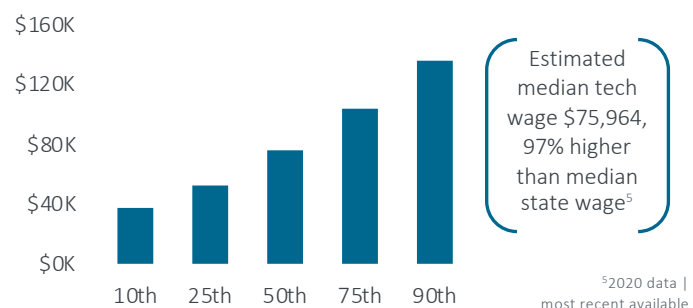
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]



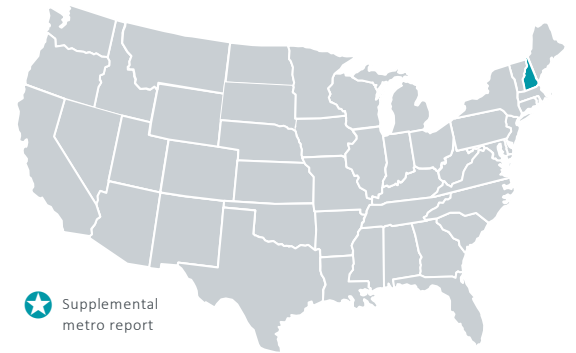
<sup>5</sup>2020 data | most recent available



# New Hampshire

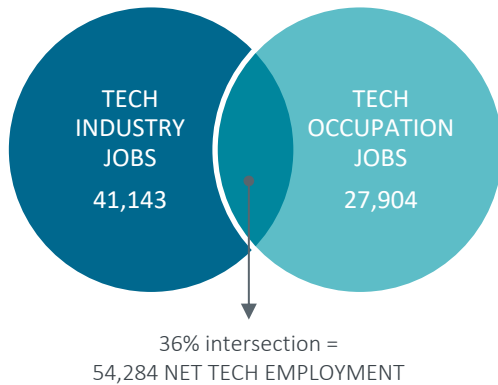
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

54,284 NET TECH EMPLOYMENT<sup>1</sup>  
 7.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$10.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 12.5% ECONOMIC IMPACT AS A % OF OVERALL  
 4,837 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 11,782 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

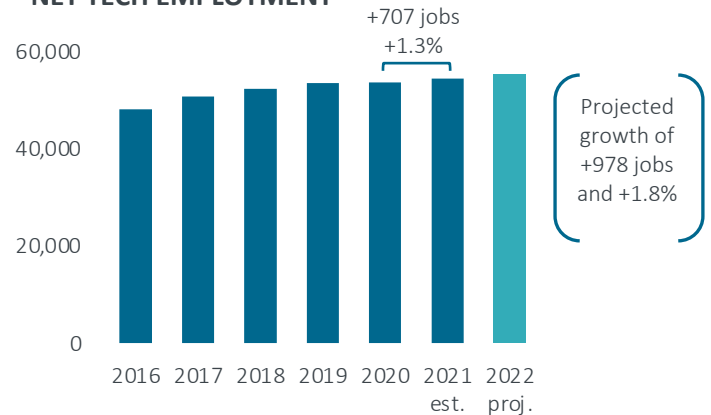


33<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 27<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 11<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

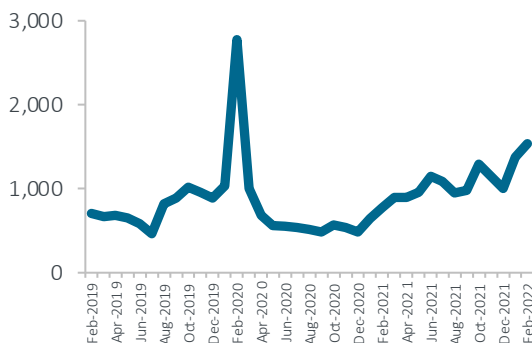


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



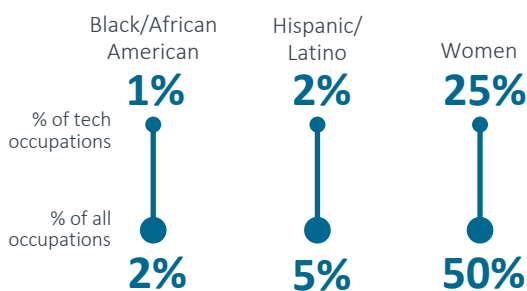
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	11,379	3.2%
IT Support Specialist and Repair Technicians	3,810	1.6%
Cybersecurity and Systems Engineers	3,630	2.3%
Network Engineers, Architects and Support	3,622	1.4%
Emerging Tech, IT Project Mgt. and Other	1,349	2.5%
Database, Data Science, and CS	822	2.8%

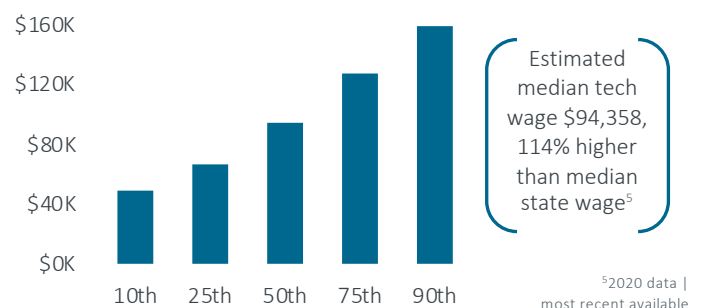
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

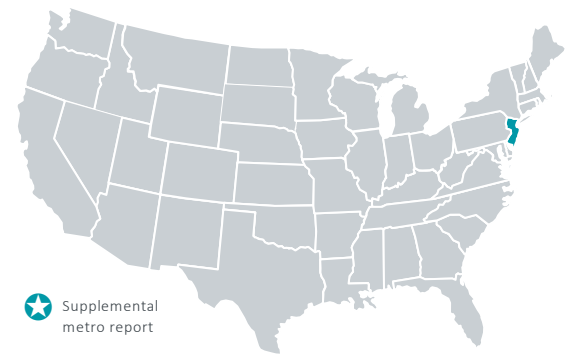
### TECH OCCUPATION WAGES [by percentile]



# New Jersey

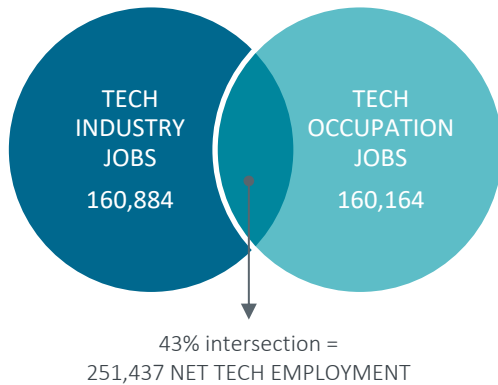
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

251,437 NET TECH EMPLOYMENT<sup>1</sup>  
 6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$48.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.0% ECONOMIC IMPACT AS A % OF OVERALL  
 13,986 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 105,942 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 27.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

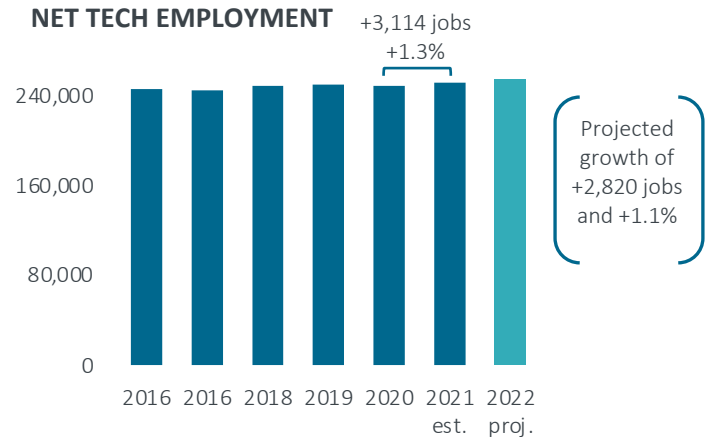


13<sup>th</sup> NET TECH EMPLOYMENT RANK  
 9<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 39<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

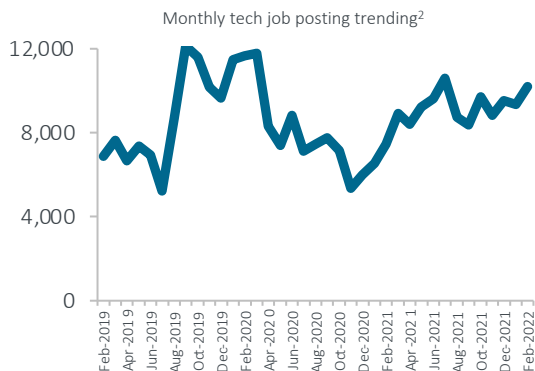
<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



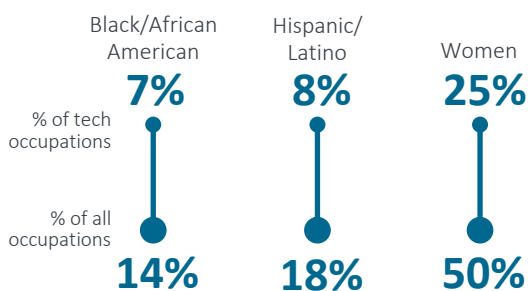
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	63,413	2.2%
Cybersecurity and Systems Engineers	22,993	1.2%
Network Engineers, Architects and Support	20,511	0.5%
IT Support Specialist and Repair Technicians	16,685	0.7%
Emerging Tech, IT Project Mgt. and Other	10,628	1.1%
Database, Data Science and CS	6,871	1.9%

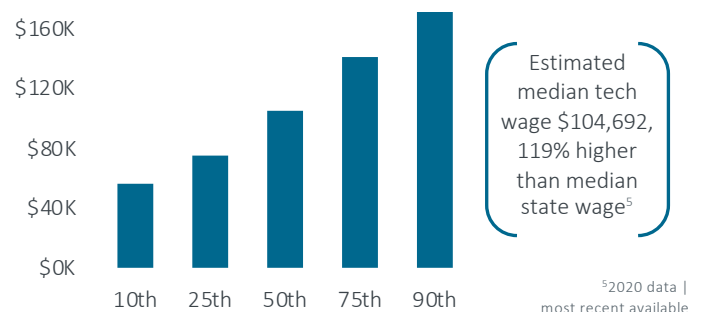
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

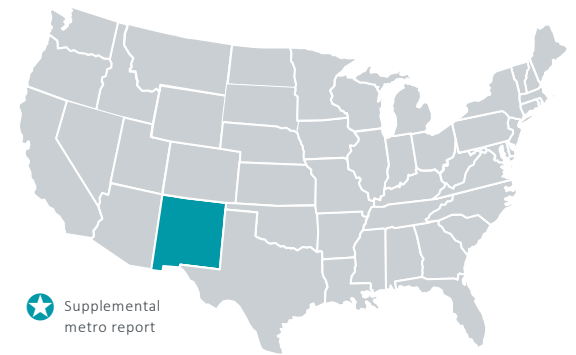
### TECH OCCUPATION WAGES [by percentile]



# New Mexico

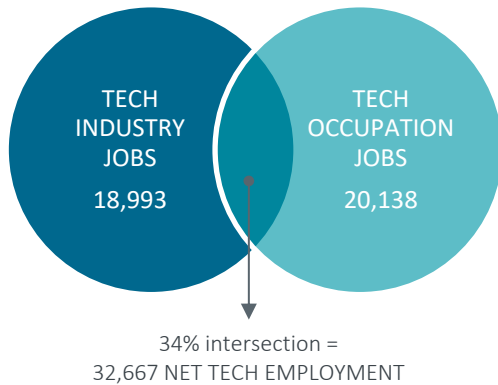
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

32,667 NET TECH EMPLOYMENT<sup>1</sup>  
 3.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$4.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.1% ECONOMIC IMPACT AS A % OF OVERALL  
 2,590 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 13,131 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 23.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

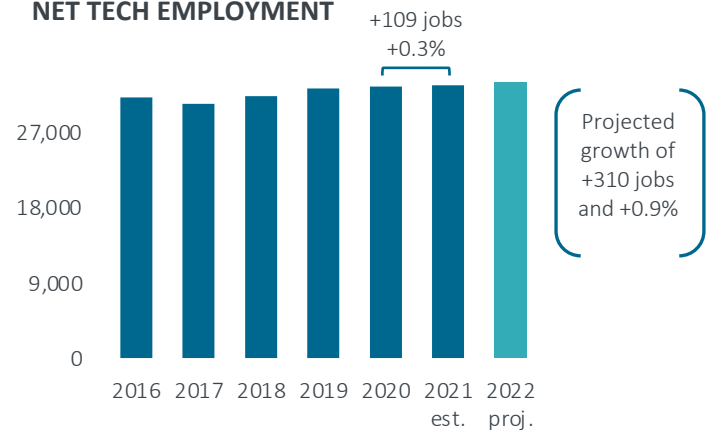


39<sup>th</sup> NET TECH EMPLOYMENT RANK  
 41<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 46<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

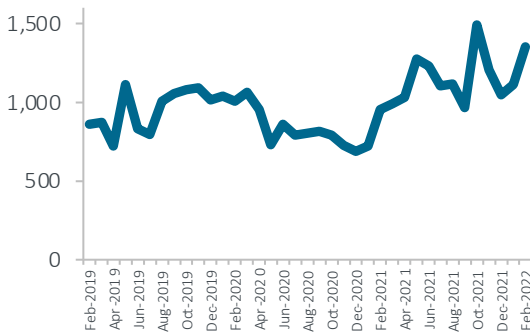


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



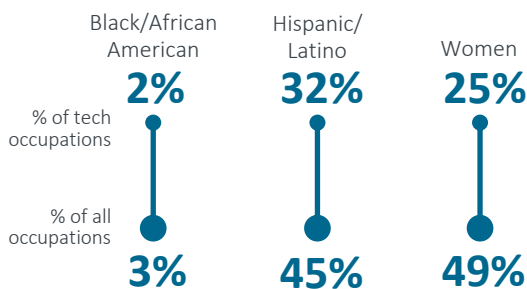
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	5,397	3.3%
Network Engineers, Architects and Support	3,635	0.0%
IT Support Specialist and Repair Technicians	3,042	0.7%
Cybersecurity and Systems Engineers	2,819	2.4%
Emerging Tech, IT Project Mgt. and Other	1,387	2.3%
Database, Data Science and CS	1,356	2.9%

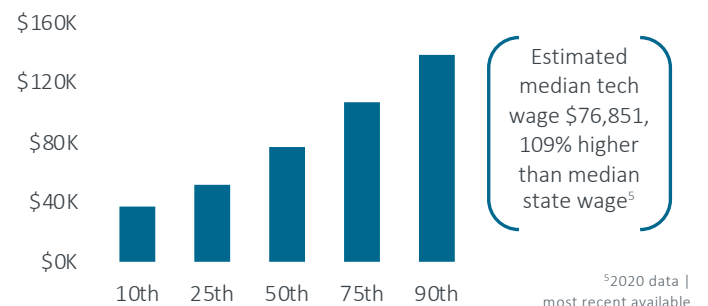
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



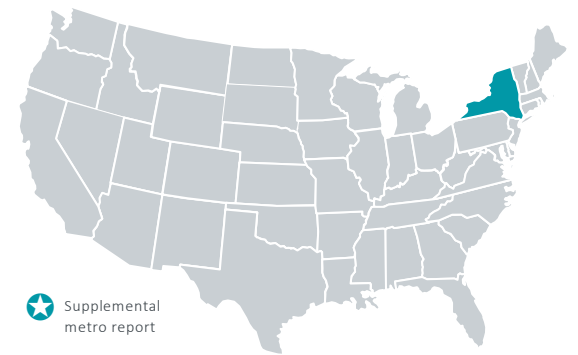
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# New York

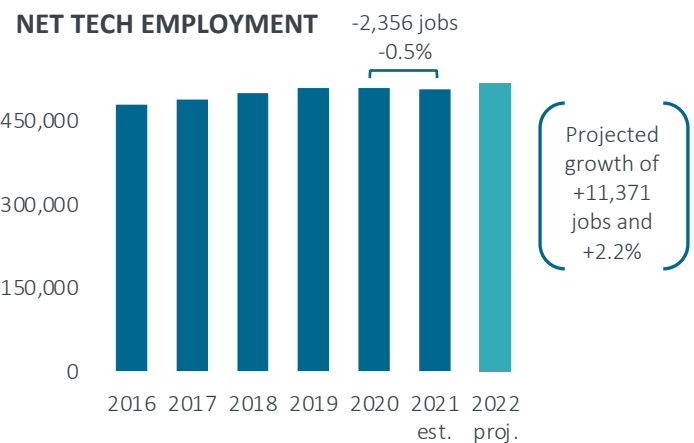
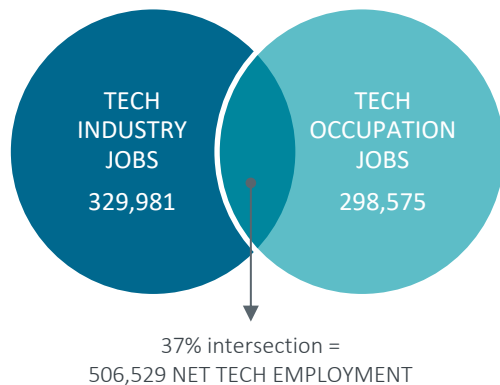


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

506,529 NET TECH EMPLOYMENT<sup>1</sup>  
 5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$140.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.8% ECONOMIC IMPACT AS A % OF OVERALL  
 24,587 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 173,902 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 31.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

3<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 51<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 50<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



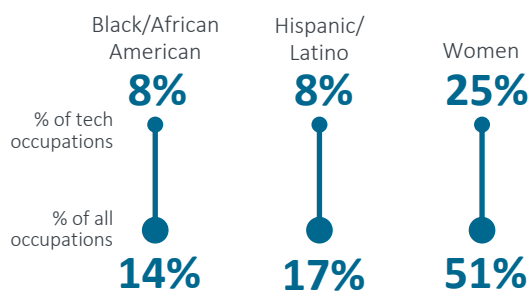
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	114,148	3.3%
IT Support Specialist and Repair Technicians	47,508	0.9%
Network Engineers, Architects and Support	44,038	0.7%
Cybersecurity and Systems Engineers	42,613	1.6%
Database, Data Science and CS	13,229	2.6%
Emerging Tech, IT Project Mgt. and Other	6,673	3.2%

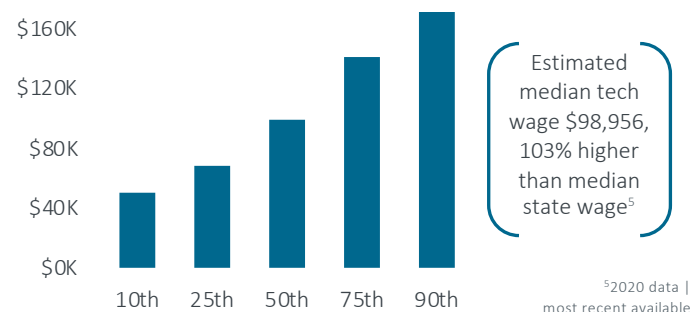
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]

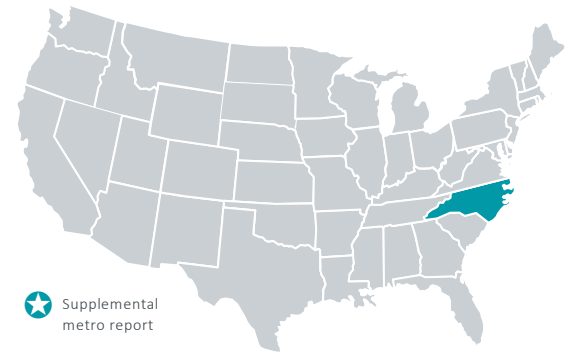


<sup>5</sup>2020 data | most recent available

# North Carolina

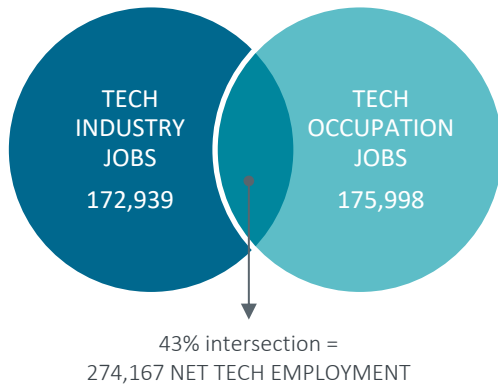
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

274,167 NET TECH EMPLOYMENT<sup>1</sup>  
 5.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$44.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.1% ECONOMIC IMPACT AS A % OF OVERALL  
 17,261 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 138,701 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

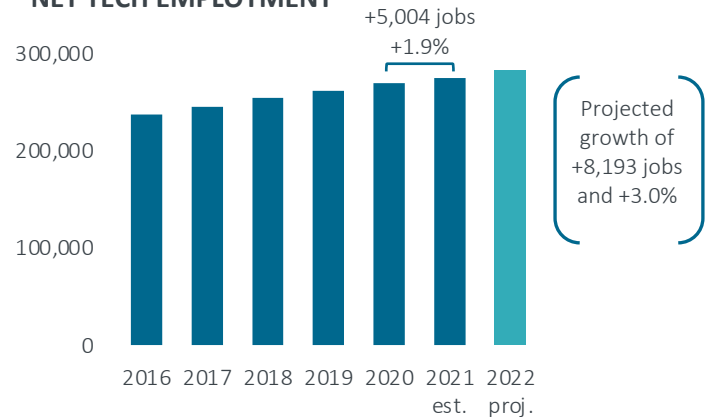


11<sup>th</sup> NET TECH EMPLOYMENT RANK  
 4<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 34<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

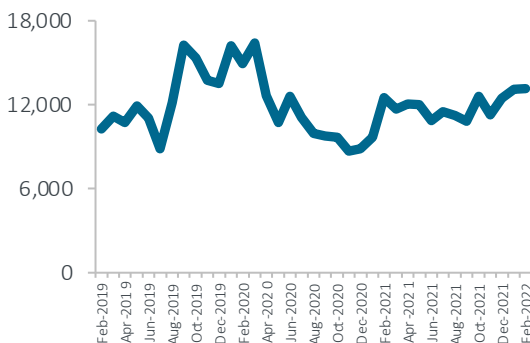


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



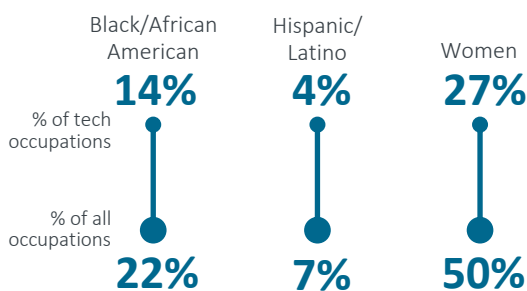
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	62,041	4.1%
Cybersecurity and Systems Engineers	33,056	2.4%
IT Support Specialist and Repair Technicians	28,247	1.9%
Network Engineers, Architects and Support	22,198	2.0%
Database, Data Science and CS	7,447	3.2%
Emerging Tech, IT Project Mgt. and Other	6,184	4.0%

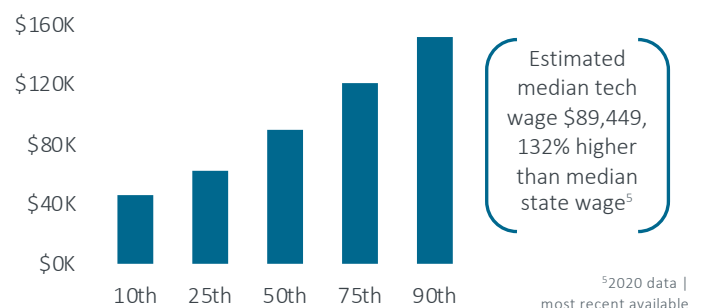
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

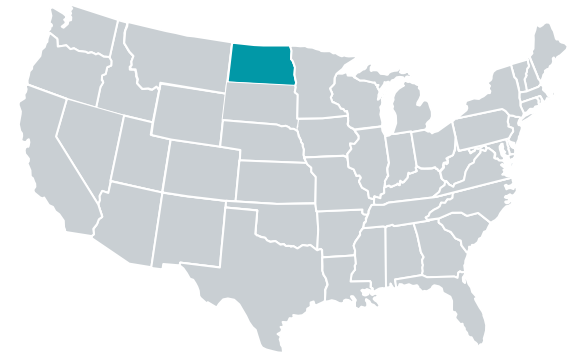


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# North Dakota

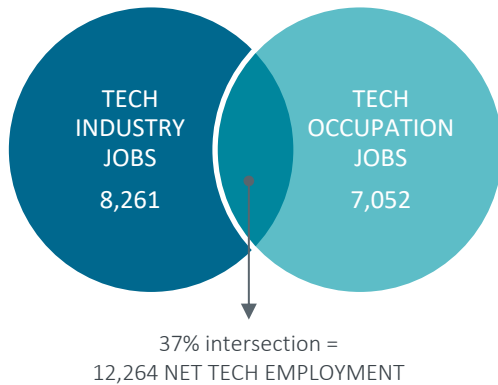


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

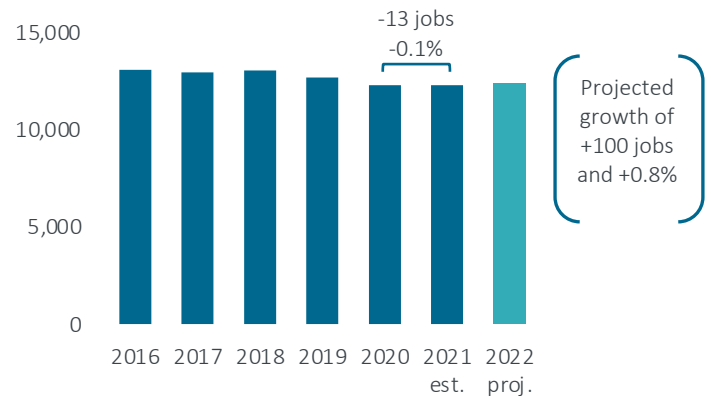
12,264 NET TECH EMPLOYMENT<sup>1</sup>  
 2.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$1.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.4% ECONOMIC IMPACT AS A % OF OVERALL  
 984 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 6,848 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

49<sup>th</sup> NET TECH EMPLOYMENT RANK  
 45<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 40<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

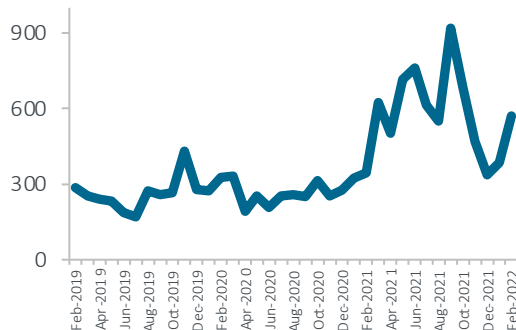


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



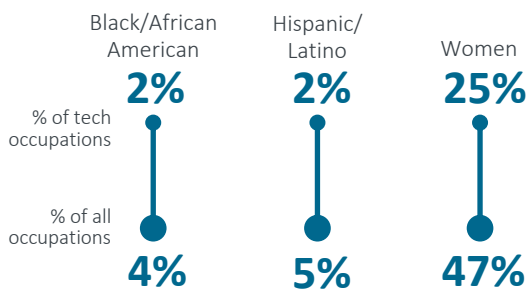
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	2,167	2.1%
IT Support Specialist and Repair Technicians	1,469	0.4%
Network Engineers, Architects and Support	1,335	0.4%
Emerging Tech, IT Project Mgt. and Other	693	0.4%
Cybersecurity and Systems Engineers	557	2.5%
Database, Data Science and CS	198	1.1%

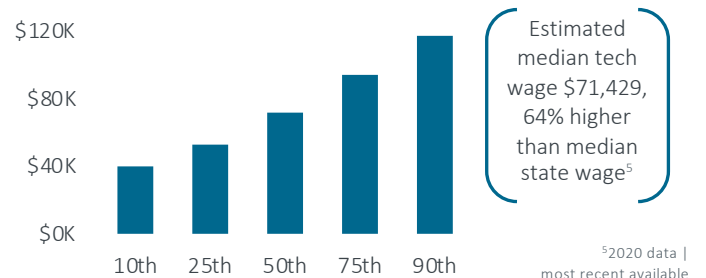
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

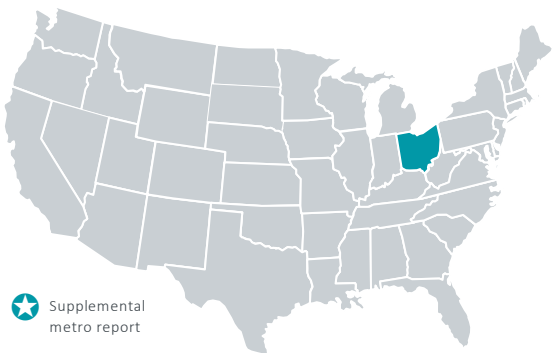


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Ohio

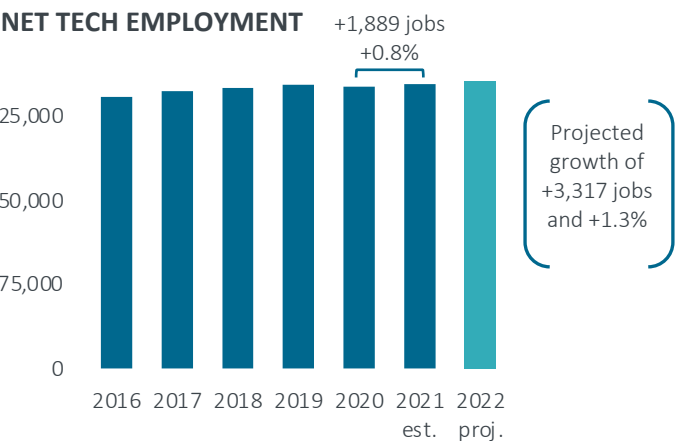
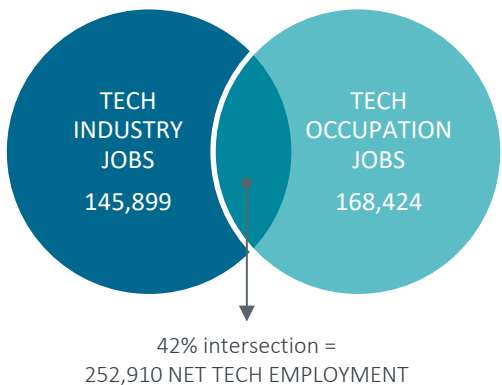


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

252,910	NET TECH EMPLOYMENT <sup>1</sup>
4.6%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$29.4b	ECONOMIC IMPACT [estimated direct impact of tech sector]
4.6%	ECONOMIC IMPACT AS A % OF OVERALL
15,700	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
100,295	EMPLOYER JOB POSTINGS [2021 total for tech occupations]
24.9%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

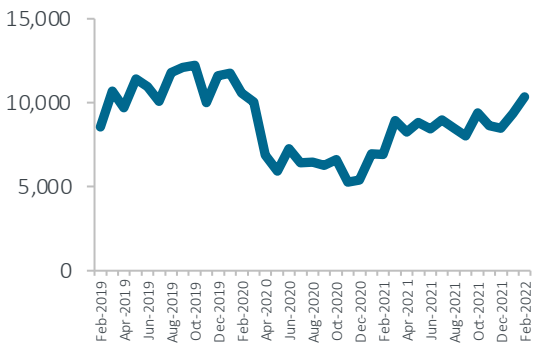
12 <sup>th</sup>	NET TECH EMPLOYMENT RANK
14 <sup>th</sup>	NET TECH EMPLOYMENT JOBS ADDED RANK
33 <sup>rd</sup>	TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
3 <sup>rd</sup>	DIVERSITY INDEX QUARTILE [1 <sup>st</sup> = top   see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



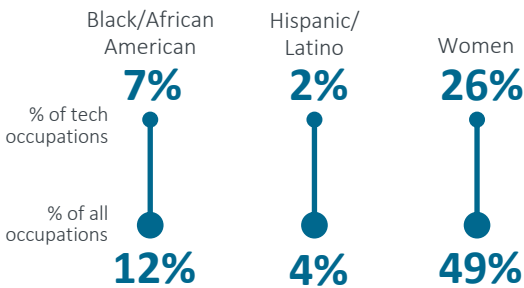
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	59,115	2.4%
Cybersecurity and Systems Engineers	27,849	1.0%
IT Support Specialist and Repair Technicians	25,332	0.6%
Network Engineers, Architects and Support	24,558	0.3%
Emerging Tech, IT Project Mgt. and Other	11,322	1.3%
Database, Data Science and CS	6,838	1.8%

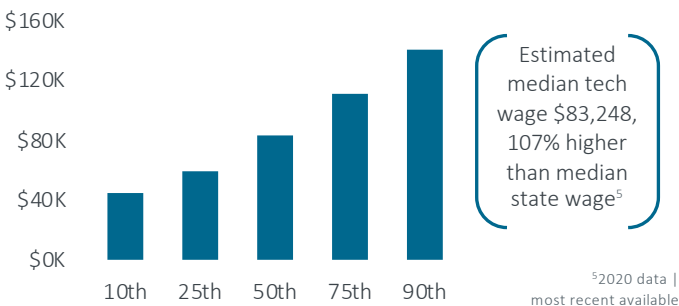
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



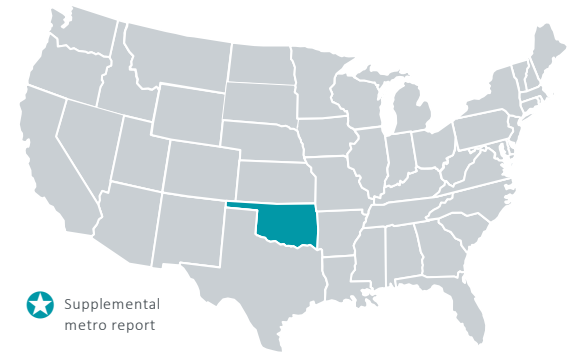
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]





# Oklahoma

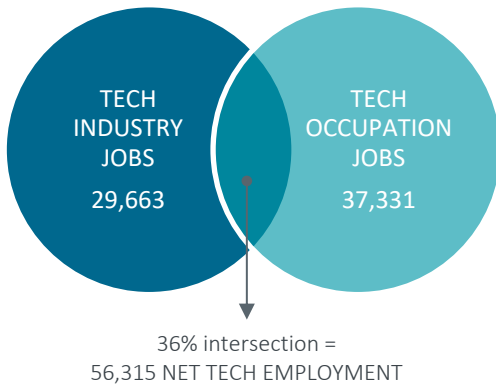


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

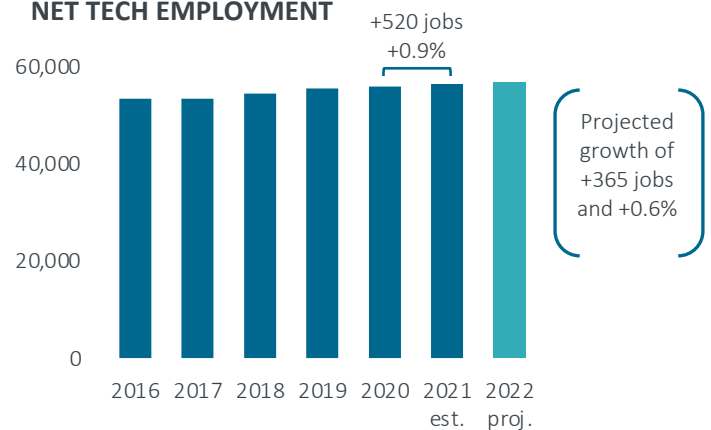
56,315 NET TECH EMPLOYMENT<sup>1</sup>  
 3.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$5.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.3% ECONOMIC IMPACT AS A % OF OVERALL  
 3,844 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 21,651 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 16.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

32<sup>nd</sup> NET TECH EMPLOYMENT RANK  
 31<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 21<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

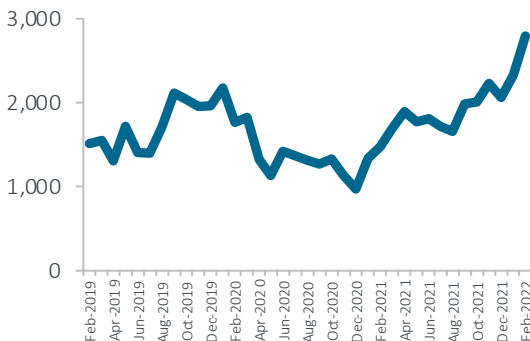


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



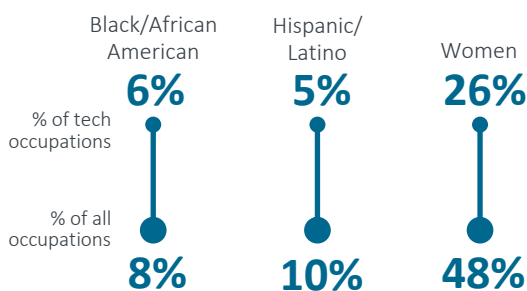
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	10,121	2.4%
IT Support Specialist and Repair Technicians	7,425	-0.2%
Network Engineers, Architects and Support	6,003	-0.2%
Cybersecurity and Systems Engineers	4,405	0.9%
Database, Data Science and CS	3,089	0.8%
Emerging Tech, IT Project Mgt. and Other	2,443	1.7%

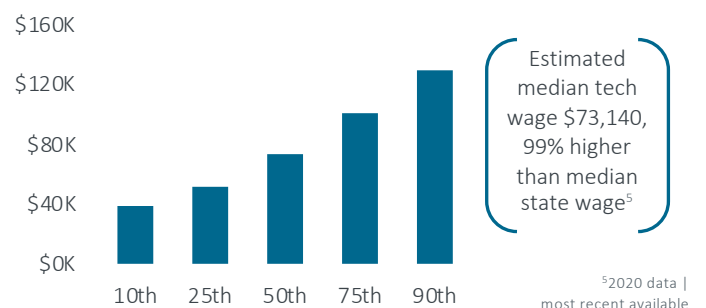
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



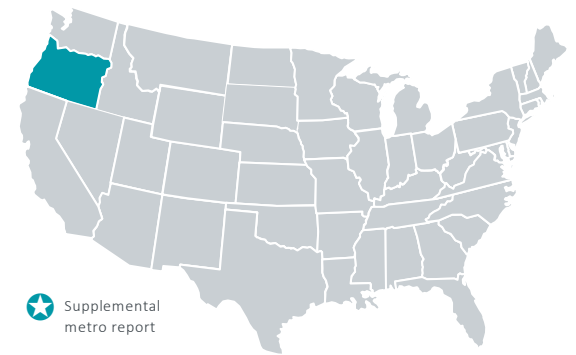
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Oregon

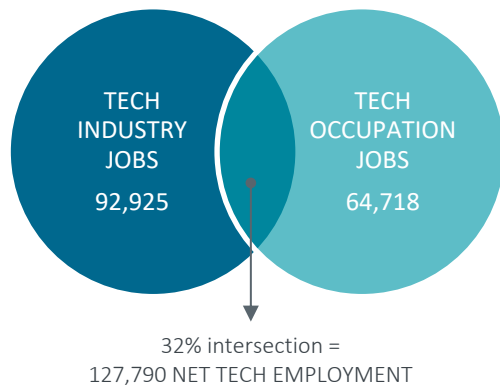


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

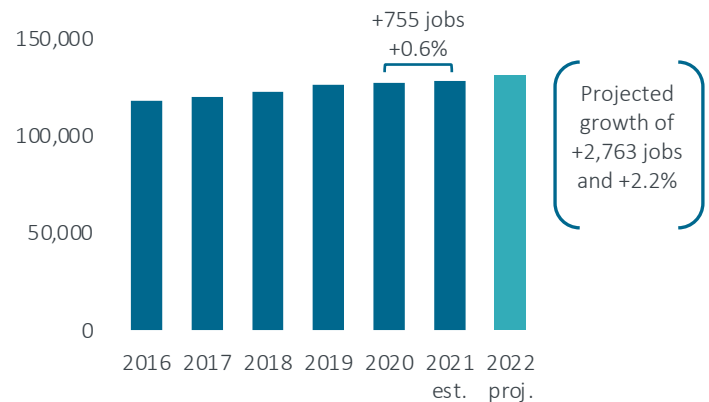
127,790	NET TECH EMPLOYMENT <sup>1</sup>
6.3%	NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
\$25.3b	ECONOMIC IMPACT [estimated direct impact of tech sector]
10.9%	ECONOMIC IMPACT AS A % OF OVERALL
7,284	TECH BUSINESS ESTABLISHMENTS [firms with payroll]
41,864	EMPLOYER JOB POSTINGS [2021 total for tech occupations]
26.0%	EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

21 <sup>st</sup>	NET TECH EMPLOYMENT RANK
25 <sup>th</sup>	NET TECH EMPLOYMENT JOBS ADDED RANK
44 <sup>th</sup>	TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
2 <sup>nd</sup>	DIVERSITY INDEX QUARTILE [1 <sup>st</sup> = top   see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

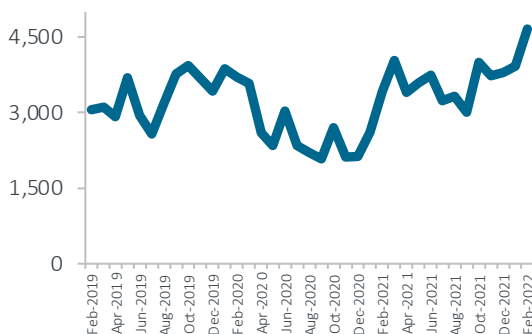


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



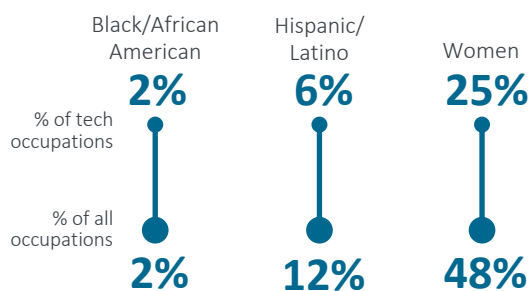
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	24,537	3.4%
IT Support Specialist and Repair Technicians	9,661	2.0%
Network Engineers, Architects and Support	8,218	1.6%
Cybersecurity and Systems Engineers	7,824	2.5%
Emerging Tech, IT Project Mgt. and Other	4,215	2.6%
Database, Data Science, and CS	2,653	3.3%

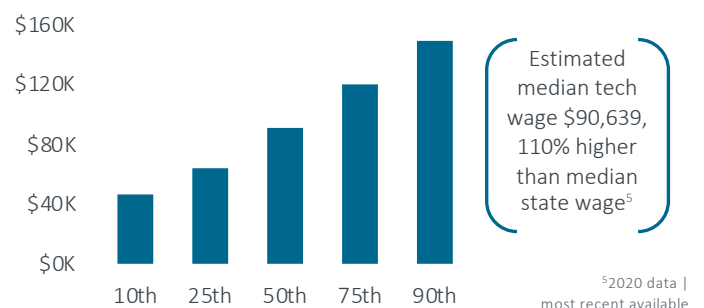
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

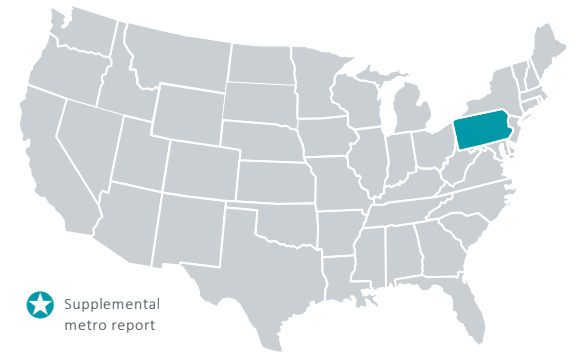


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Pennsylvania

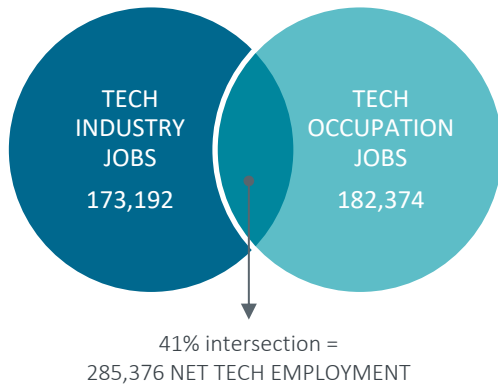


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

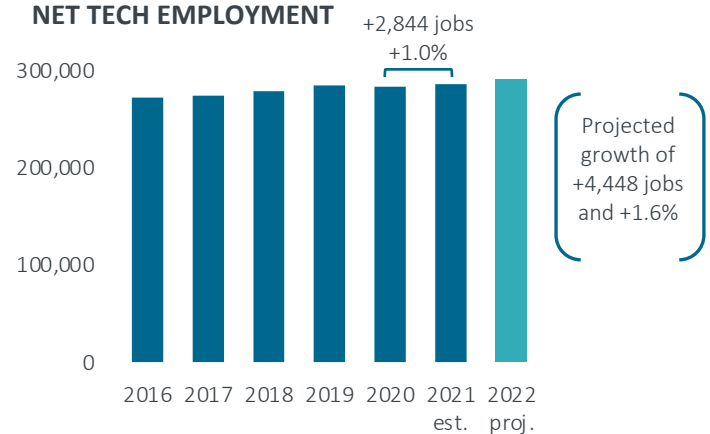
285,376 NET TECH EMPLOYMENT<sup>1</sup>  
 4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$47.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.5% ECONOMIC IMPACT AS A % OF OVERALL  
 15,721 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 99,216 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

9<sup>th</sup> NET TECH EMPLOYMENT RANK  
 10<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 26<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

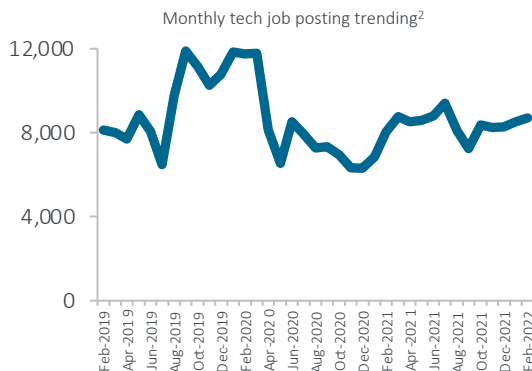
<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



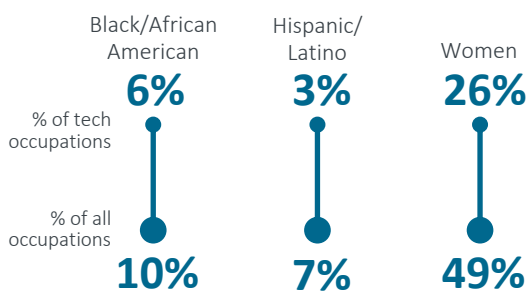
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	57,513	3.0%
IT Support Specialist and Repair Technicians	28,225	0.6%
Network Engineers, Architects and Support	26,221	0.8%
Cybersecurity and Systems Engineers	24,078	1.5%
Emerging Tech, IT Project Mgt. and Other	19,062	1.2%
Database, Data Science and CS	8,601	2.1%

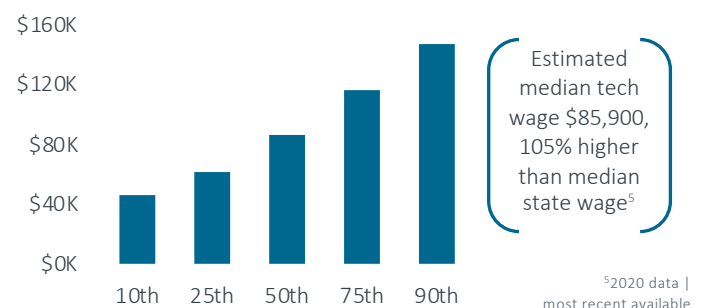
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

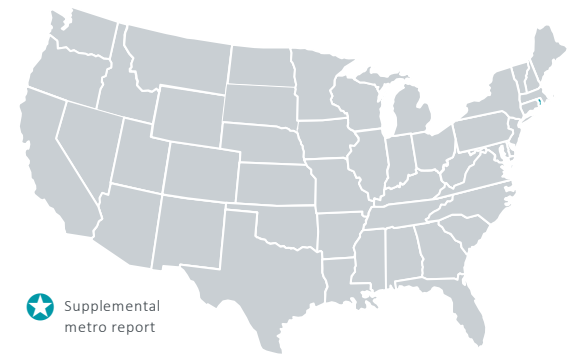
## TECH OCCUPATION WAGES [by percentile]



# Rhode Island

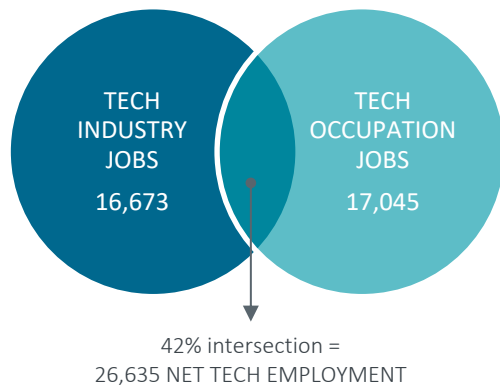
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

26,635 NET TECH EMPLOYMENT<sup>1</sup>  
 5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.1% ECONOMIC IMPACT AS A % OF OVERALL  
 2,854 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 12,367 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

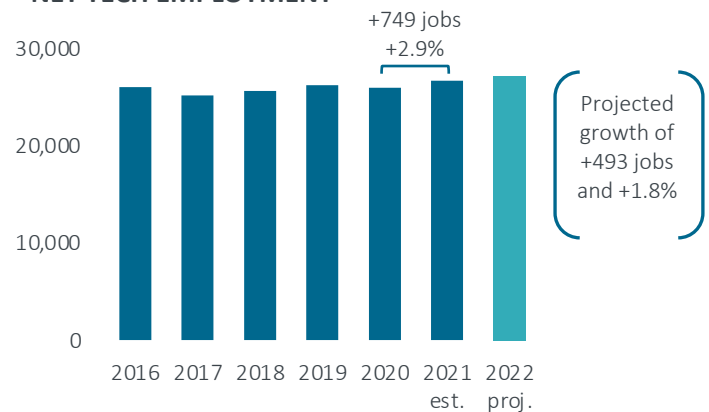


41<sup>st</sup> NET TECH EMPLOYMENT RANK  
 26<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 16<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

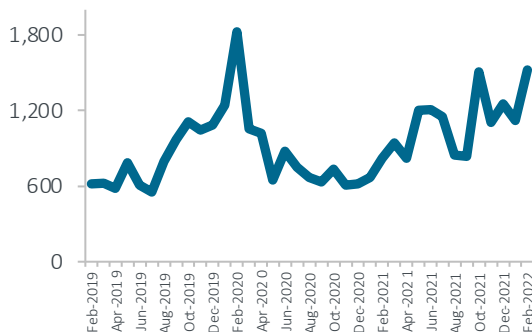


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



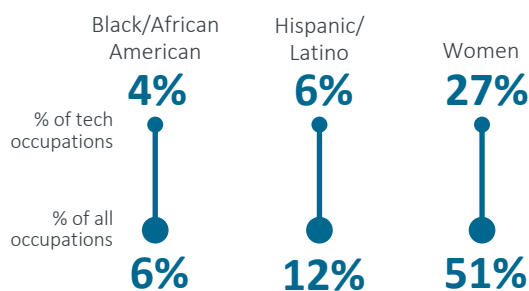
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	4,761	3.0%
Network Engineers, Architects and Support	2,794	0.8%
Cybersecurity and Systems Engineers	2,643	1.9%
IT Support Specialist and Repair Technicians	2,253	1.6%
Emerging Tech, IT Project Mgt. and Other	1,518	1.8%
Database, Data Science and CS	1,151	2.3%

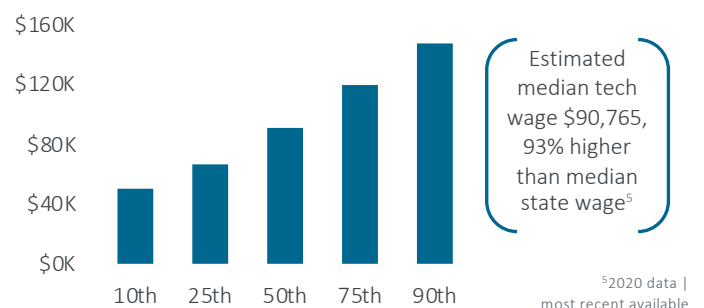
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

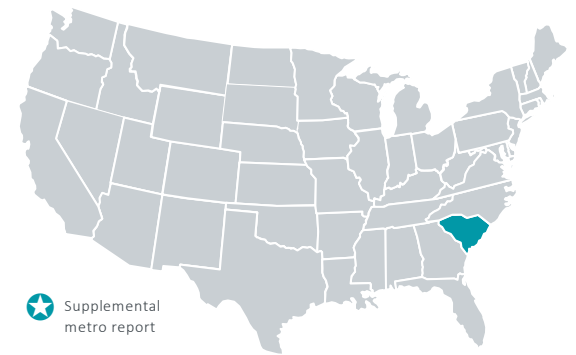
### TECH OCCUPATION WAGES [by percentile]



# South Carolina

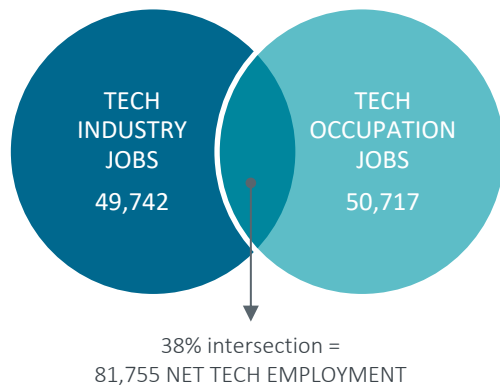
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

81,755 NET TECH EMPLOYMENT<sup>1</sup>  
 3.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$11.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.8% ECONOMIC IMPACT AS A % OF OVERALL  
 7,720 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 26,353 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 24.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

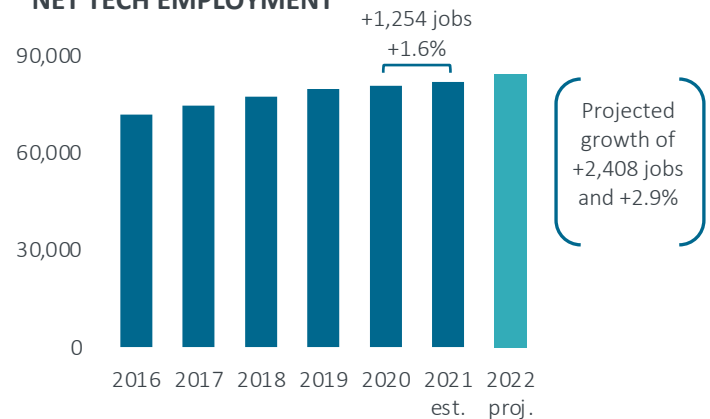


27<sup>th</sup> NET TECH EMPLOYMENT RANK  
 20<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 19<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

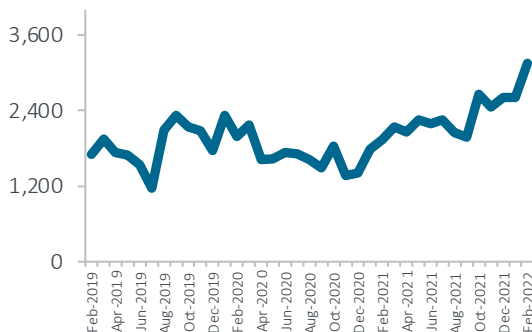


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



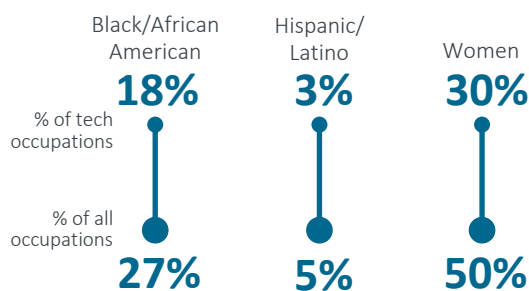
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	12,728	4.9%
IT Support Specialist and Repair Technicians	11,215	1.8%
Cybersecurity and Systems Engineers	10,033	2.3%
Network Engineers, Architects and Support	8,189	1.9%
Emerging Tech, IT Project Mgt. and Other	2,496	3.6%
Database, Data Science and CS	1,790	4.0%

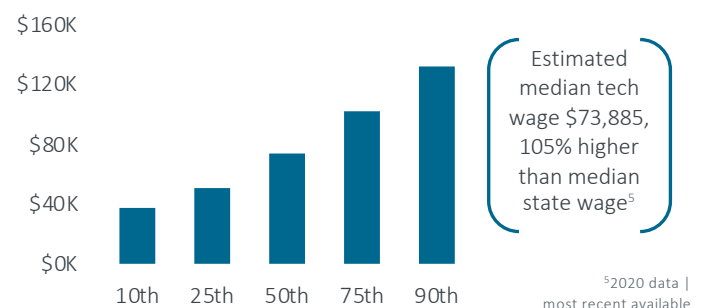
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

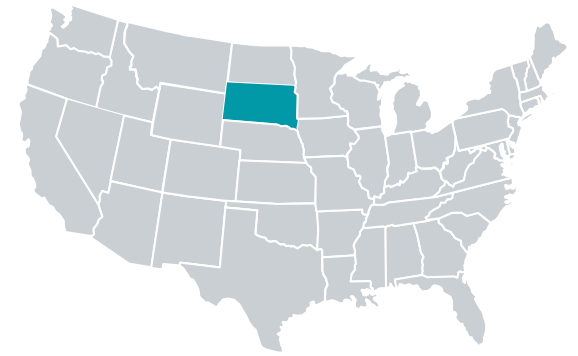


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# South Dakota

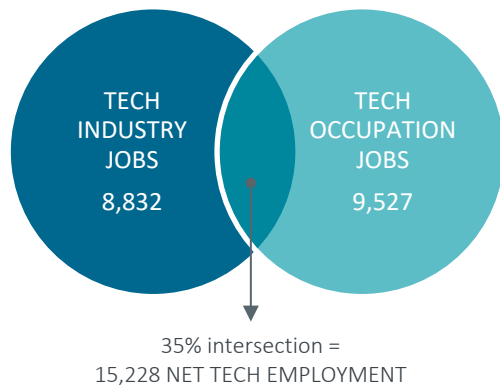


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

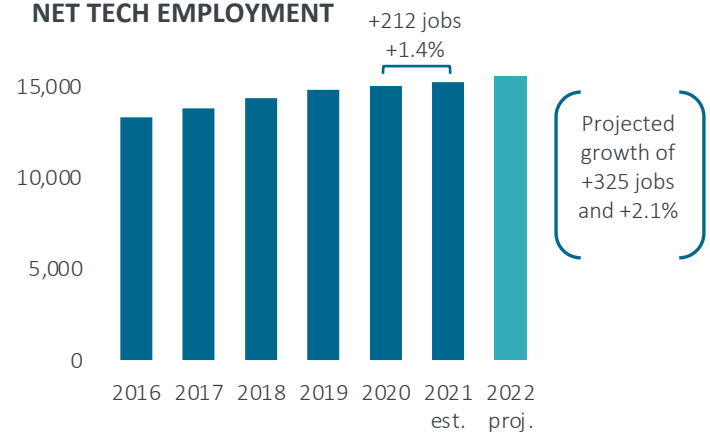
15,228 NET TECH EMPLOYMENT<sup>1</sup>  
 3.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$1.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.7% ECONOMIC IMPACT AS A % OF OVERALL  
 1,468 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 6,117 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 21.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

48<sup>th</sup> NET TECH EMPLOYMENT RANK  
 39<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 7<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

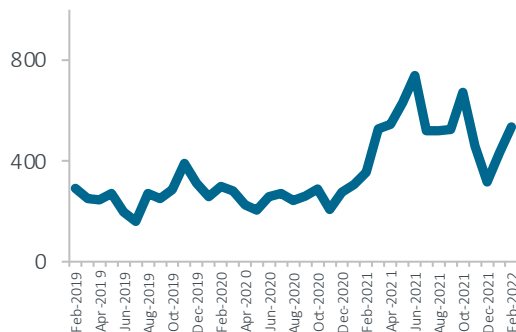


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



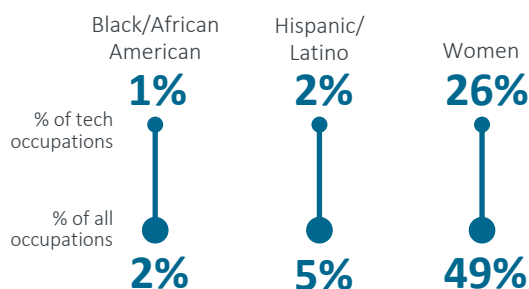
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Network Engineers, Architects and Support	2,987	0.7%
Software, Programmers, Web and QA	2,793	3.5%
IT Support Specialist and Repair Technicians	1,357	1.7%
Cybersecurity and Systems Engineers	1,283	2.7%
Emerging Tech, IT Project Mgt. and Other	336	2.8%
Database, Data Science and CS	263	2.6%

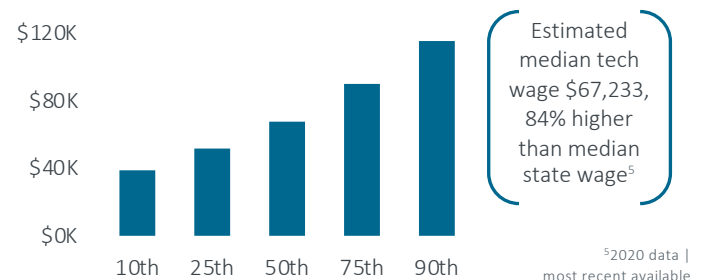
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

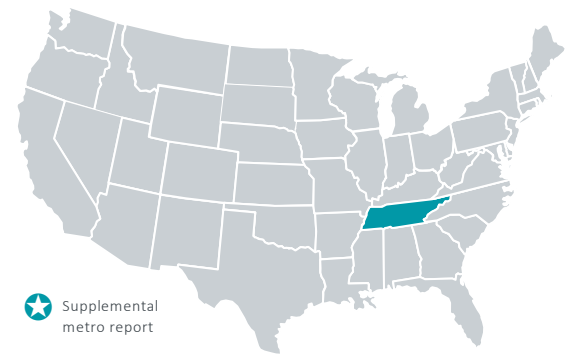
## TECH OCCUPATION WAGES [by percentile]



# Tennessee

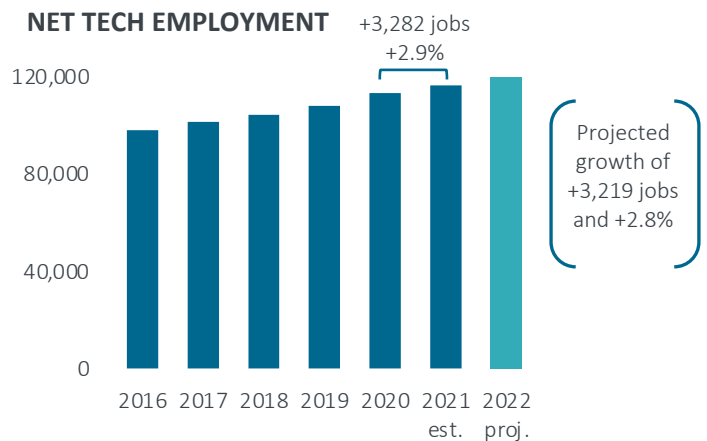
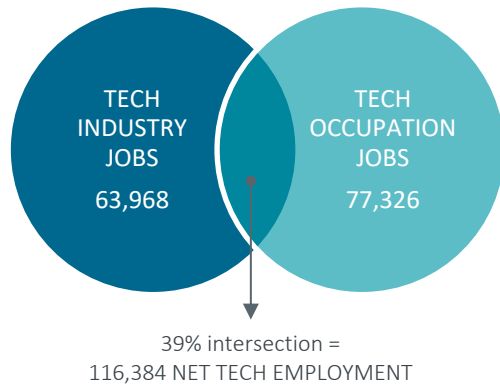
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

116,384 NET TECH EMPLOYMENT<sup>1</sup>  
 3.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$15.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.2% ECONOMIC IMPACT AS A % OF OVERALL  
 10,085 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 48,541 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 28.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL



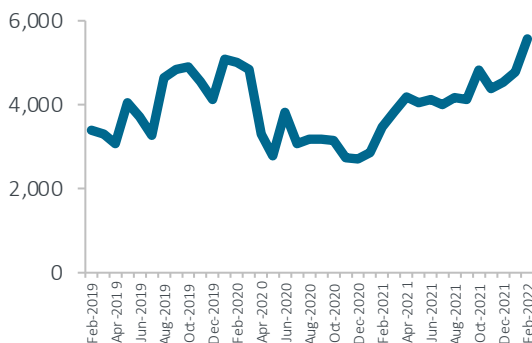
22<sup>nd</sup> NET TECH EMPLOYMENT RANK  
 8<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 5<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



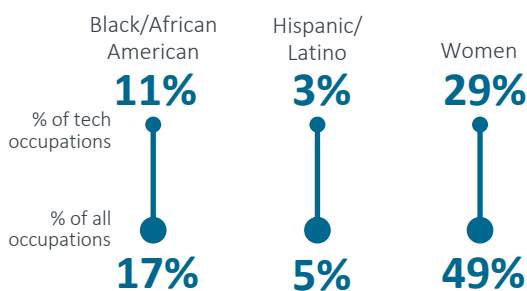
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	22,589	4.7%
Cybersecurity and Systems Engineers	12,683	2.5%
IT Support Specialist and Repair Technicians	11,693	2.2%
Network Engineers, Architects and Support	10,560	2.0%
Emerging Tech, IT Project Mgt. and Other	7,052	2.4%
Database, Data Science and CS	4,124	3.4%

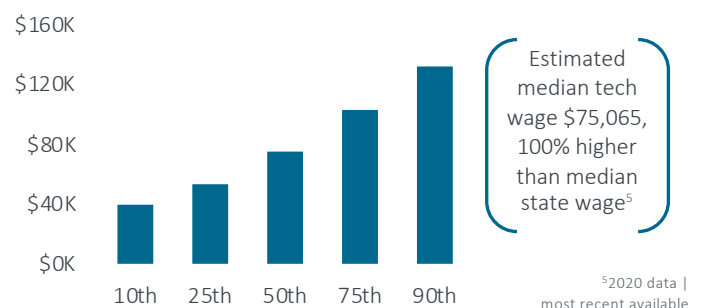
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]

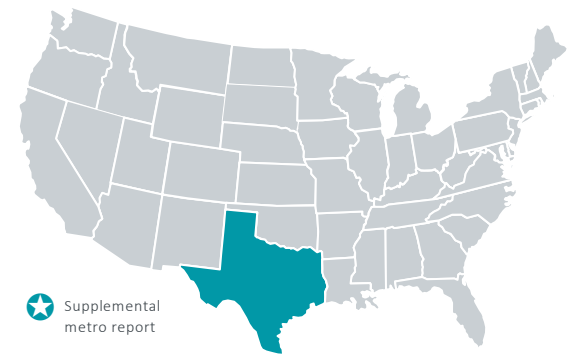




# Texas

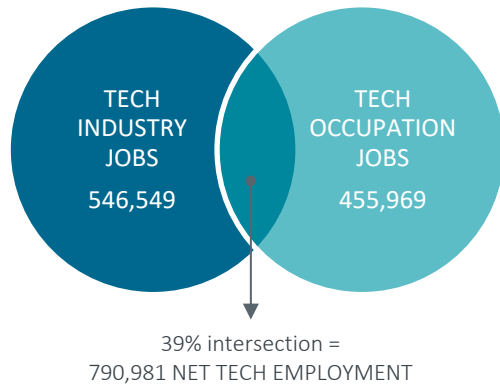
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

790,981 NET TECH EMPLOYMENT<sup>1</sup>  
 5.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$142.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.2% ECONOMIC IMPACT AS A % OF OVERALL  
 39,299 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 352,191 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 28.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

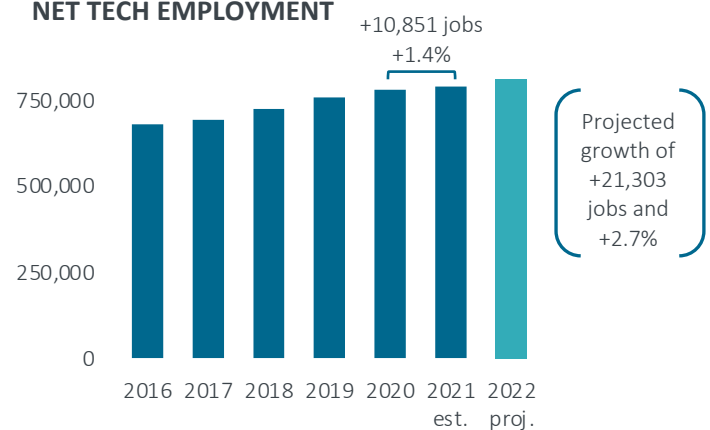


2<sup>nd</sup> NET TECH EMPLOYMENT RANK  
 1<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 35<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

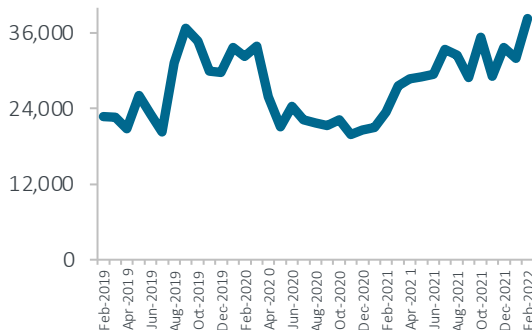


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



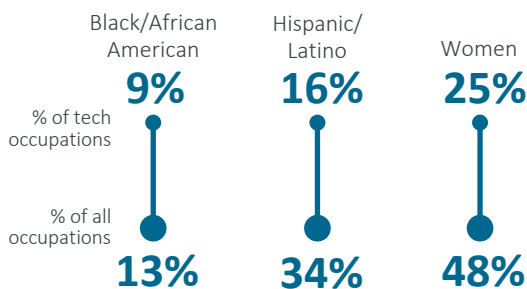
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	156,214	4.6%
IT Support Specialist and Repair Technicians	73,751	2.4%
Cybersecurity and Systems Engineers	71,157	3.0%
Network Engineers, Architects and Support	68,542	2.1%
Emerging Tech, IT Project Mgt. and Other	30,833	3.2%
Database, Data Science and CS	18,699	3.7%

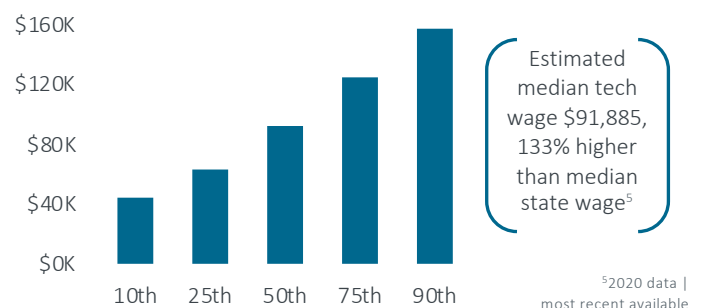
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

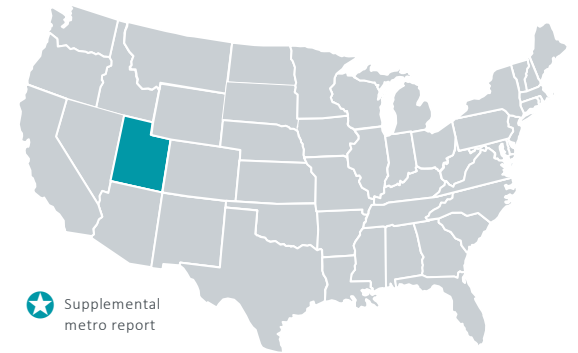


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Utah

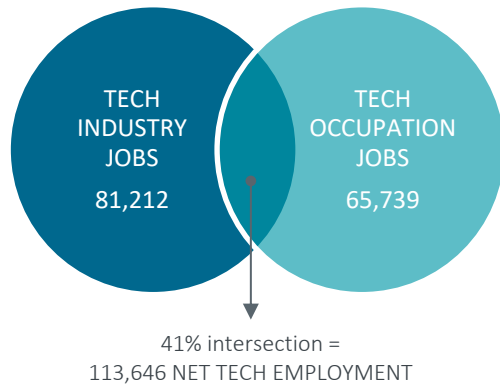


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

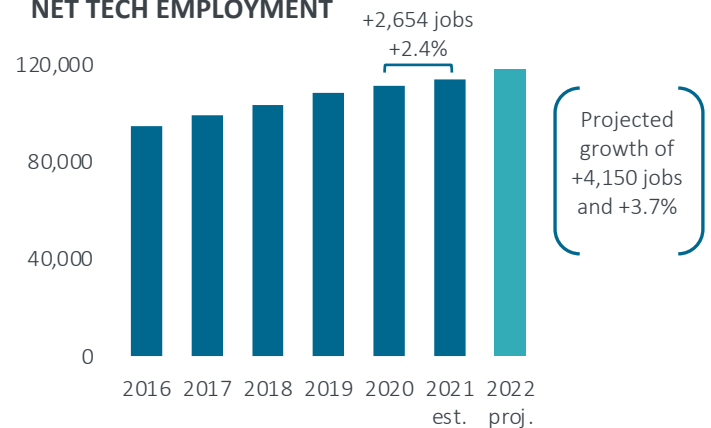
113,646 NET TECH EMPLOYMENT<sup>1</sup>  
 6.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$19.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 10.0% ECONOMIC IMPACT AS A % OF OVERALL  
 7,518 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 38,954 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 23.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

23<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 12<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 8<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

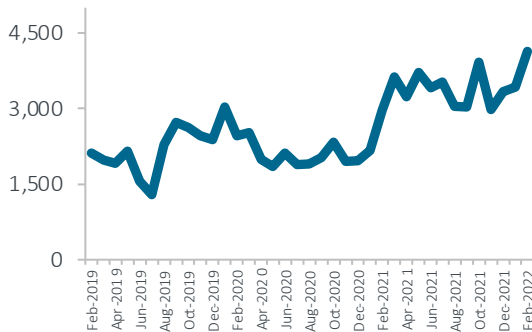


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



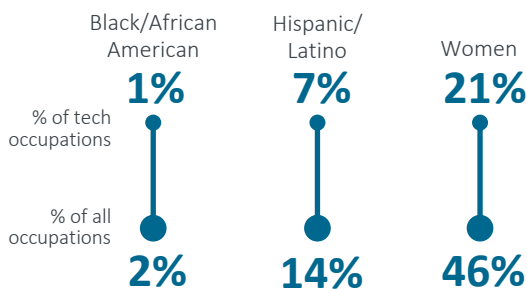
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	26,377	5.0%
IT Support Specialist and Repair Technicians	11,116	2.9%
Emerging Tech, IT Project Mgt. and Other	8,030	2.9%
Network Engineers, Architects and Support	6,154	3.7%
Cybersecurity and Systems Engineers	4,882	5.4%
Database, Data Science and CS	3,246	3.8%

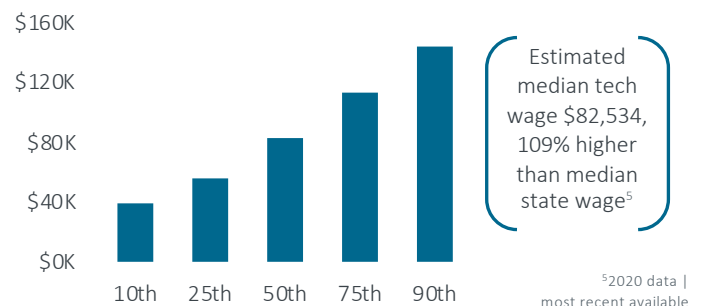
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



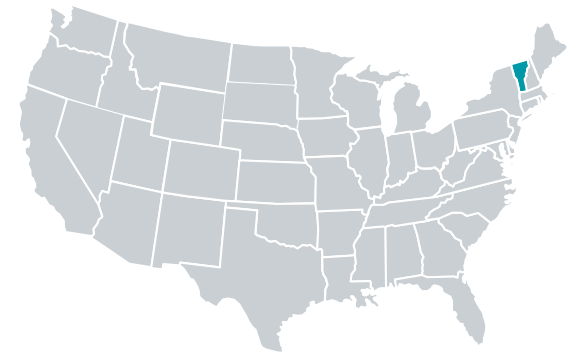
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Vermont

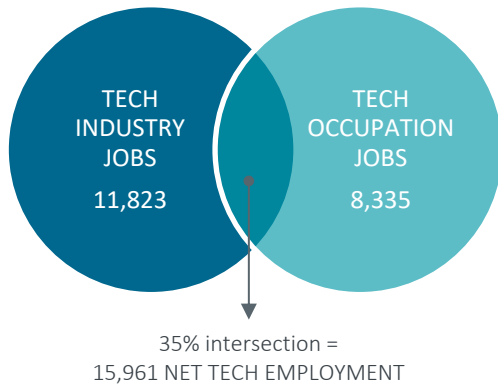


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

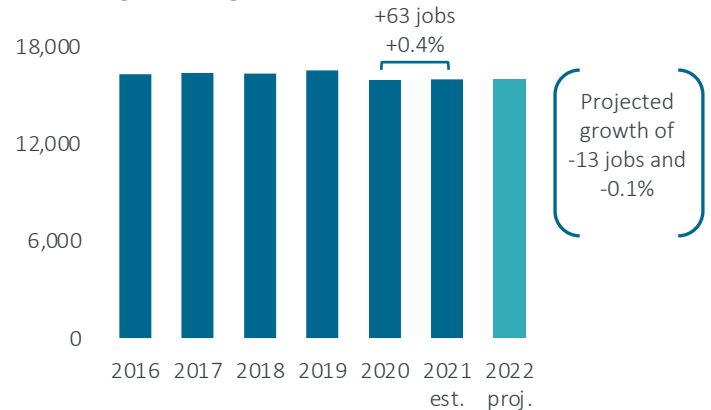
15,961 NET TECH EMPLOYMENT<sup>1</sup>  
 5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 7.1% ECONOMIC IMPACT AS A % OF OVERALL  
 1,938 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 4,795 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 23.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

46<sup>th</sup> NET TECH EMPLOYMENT RANK  
 43<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 1<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

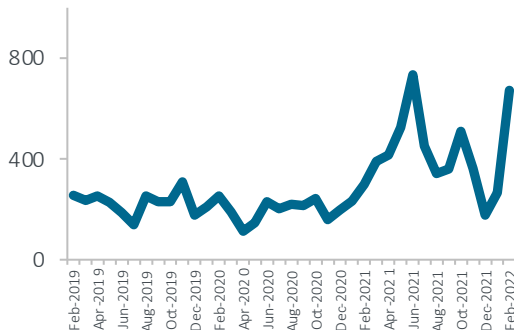


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



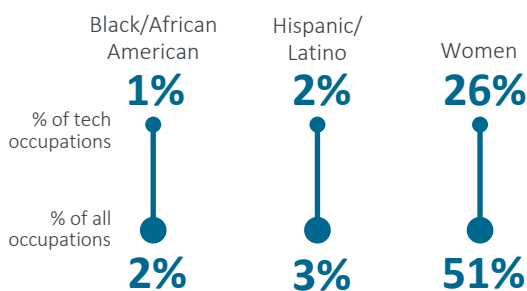
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	2,713	3.1%
IT Support Specialist and Repair Technicians	1,485	1.0%
Network Engineers, Architects and Support	1,249	0.8%
Cybersecurity and Systems Engineers	837	2.4%
Emerging Tech, IT Project Mgt. and Other	563	2.1%
Database, Data Science and CS	381	2.5%

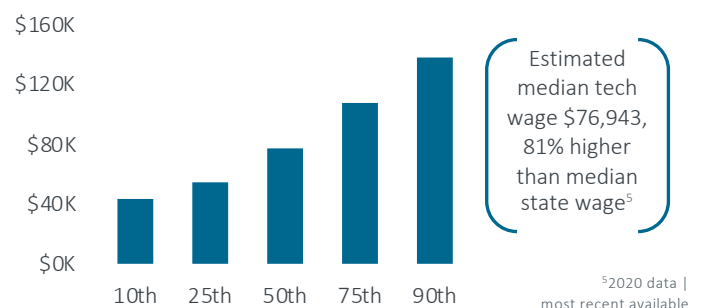
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]



# Virginia

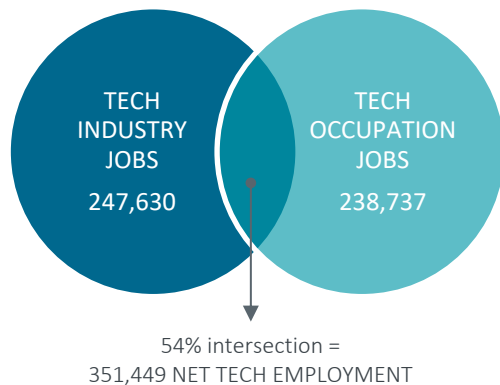
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

351,449 NET TECH EMPLOYMENT<sup>1</sup>  
 8.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$57.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 11.3% ECONOMIC IMPACT AS A % OF OVERALL  
 20,600 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 161,678 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

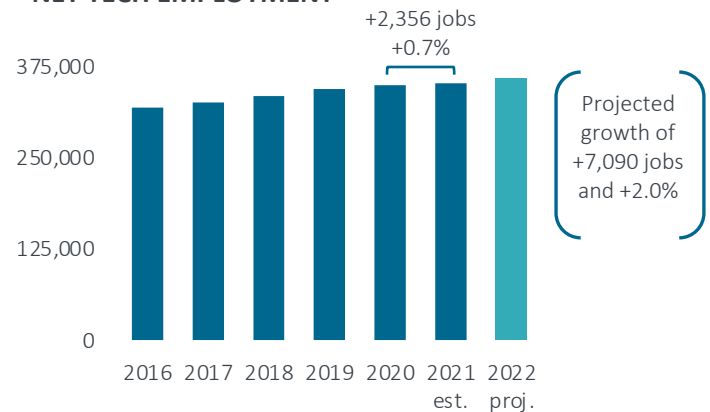


5<sup>th</sup> NET TECH EMPLOYMENT RANK  
 13<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 41<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

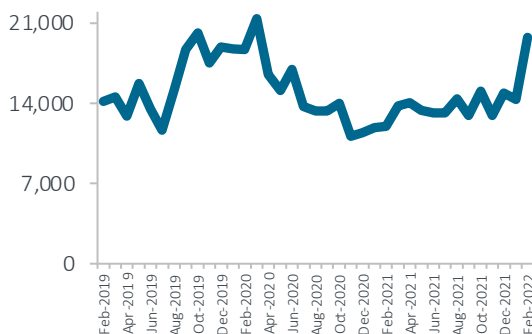


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



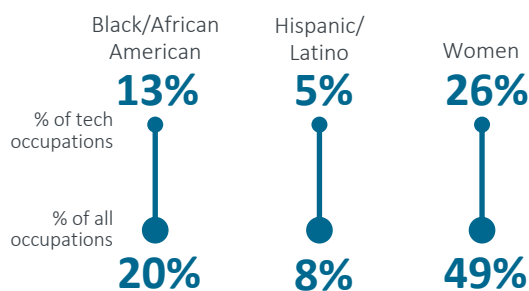
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	94,946	3.0%
Cybersecurity and Systems Engineers	40,468	2.2%
Network Engineers, Architects and Support	34,098	1.0%
IT Support Specialist and Repair Technicians	22,880	1.9%
Emerging Tech, IT Project Mgt. and Other	14,872	2.2%
Database, Data Science and CS	13,645	2.2%

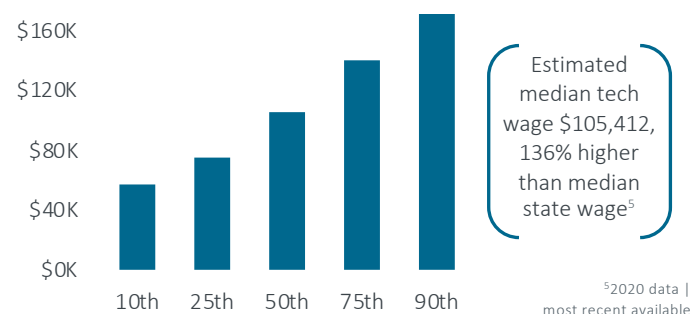
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

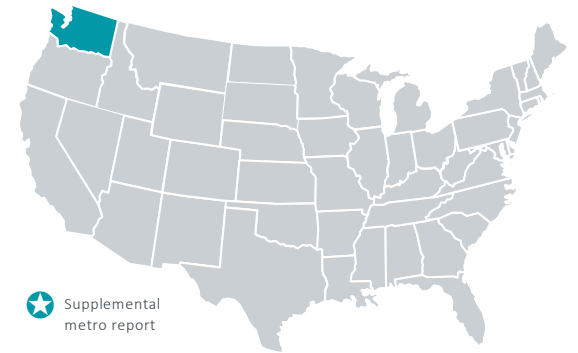


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Washington

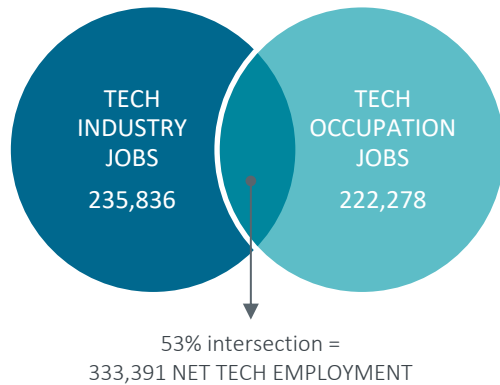


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

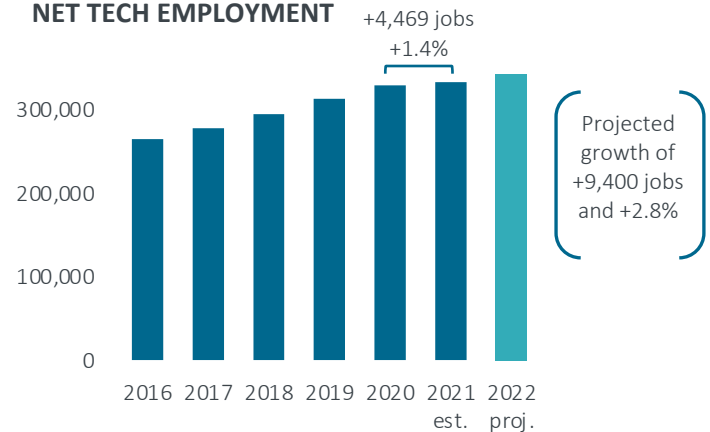
333,391 NET TECH EMPLOYMENT<sup>1</sup>  
 9.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$127.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 22.4% ECONOMIC IMPACT AS A % OF OVERALL  
 15,336 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 113,344 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 40.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

6<sup>th</sup> NET TECH EMPLOYMENT RANK  
 5<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 29<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

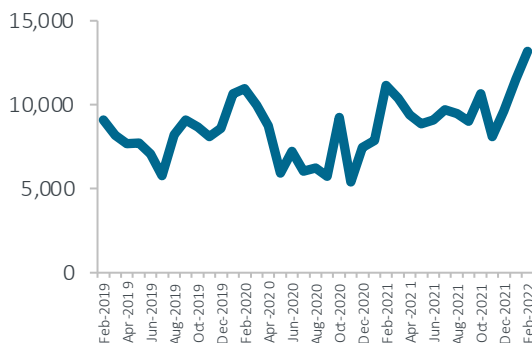


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



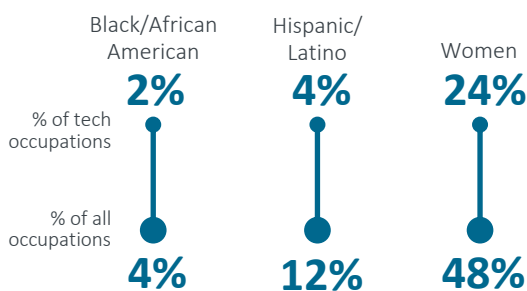
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	125,727	3.2%
Cybersecurity and Systems Engineers	23,142	1.9%
IT Support Specialist and Repair Technicians	20,032	2.0%
Network Engineers, Architects and Support	16,226	1.7%
Emerging Tech, IT Project Mgt. and Other	11,648	2.3%
Database, Data Science and CS	8,469	3.2%

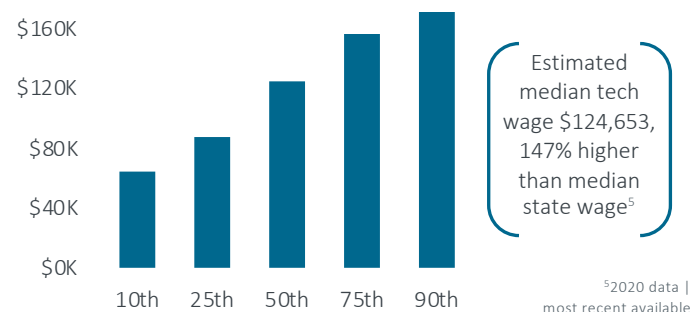
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

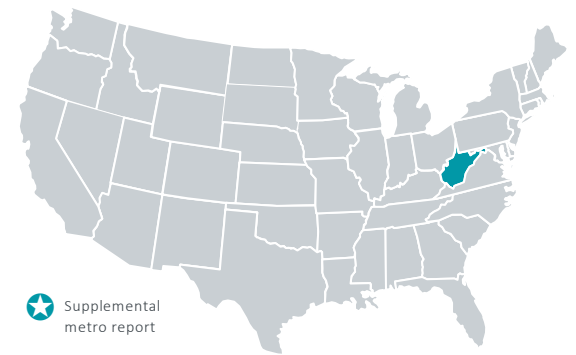
## TECH OCCUPATION WAGES [by percentile]



# West Virginia

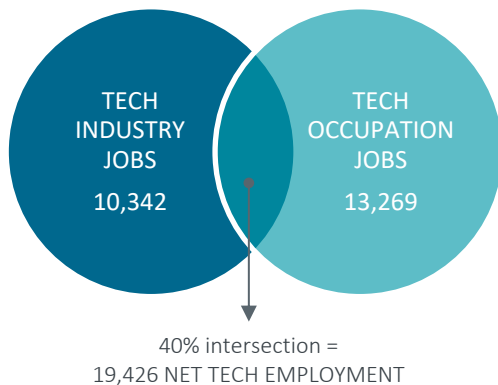
## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

19,426 NET TECH EMPLOYMENT<sup>1</sup>  
 2.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$1.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 2.7% ECONOMIC IMPACT AS A % OF OVERALL  
 2,026 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 6,394 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

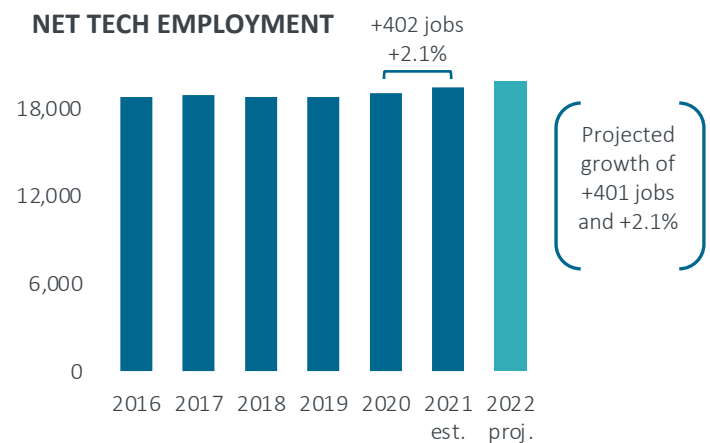


44<sup>th</sup> NET TECH EMPLOYMENT RANK  
 36<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 28<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

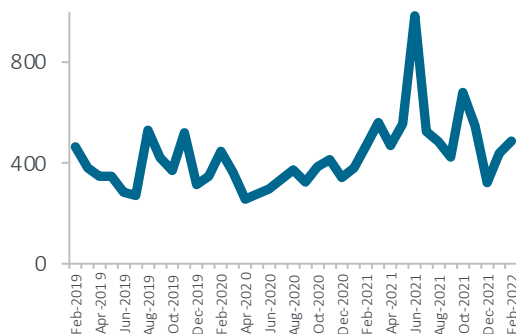


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



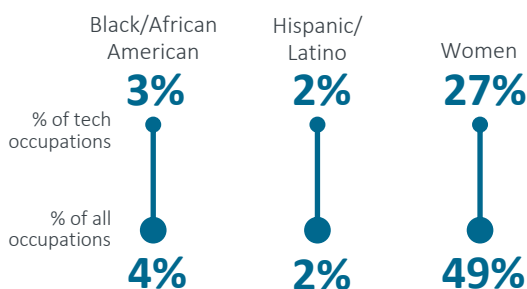
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	2,831	5.1%
IT Support Specialist and Repair Technicians	2,635	1.0%
Emerging Tech, IT Project Mgt. and Other	2,311	2.2%
Network Engineers, Architects and Support	2,110	1.1%
Cybersecurity and Systems Engineers	1,587	3.3%
Database, Data Science and CS	633	2.7%

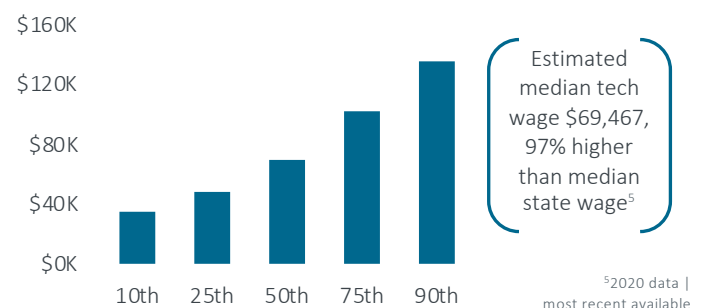
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



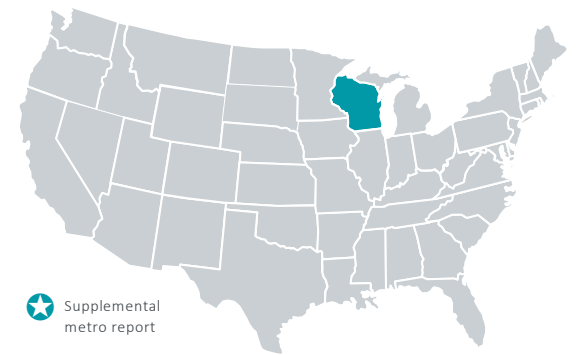
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Wisconsin

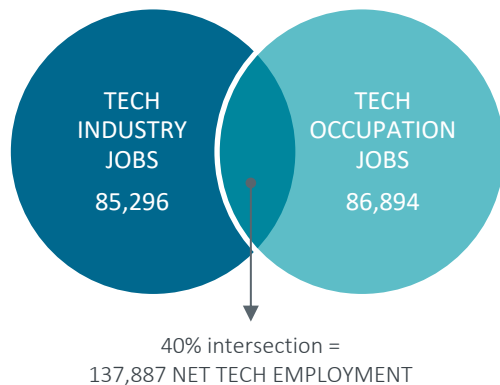


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

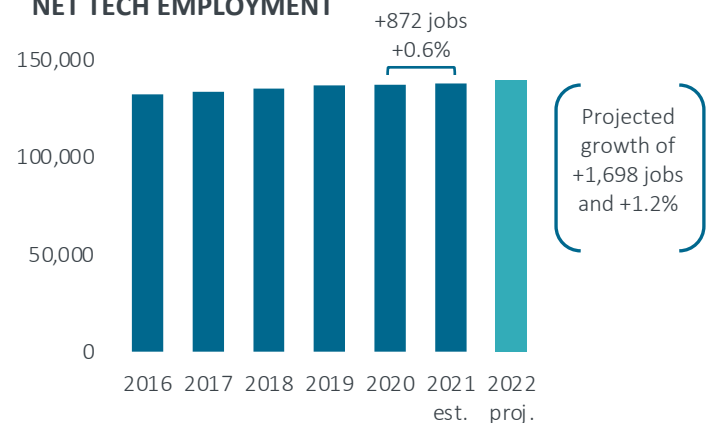
137,887 NET TECH EMPLOYMENT<sup>1</sup>  
 4.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$19.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.2% ECONOMIC IMPACT AS A % OF OVERALL  
 7,733 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 53,874 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 25.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

20<sup>th</sup> NET TECH EMPLOYMENT RANK  
 24<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 9<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

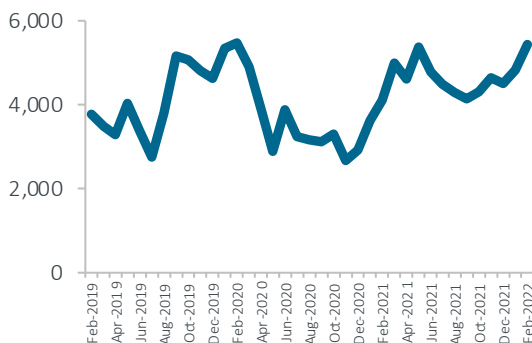


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



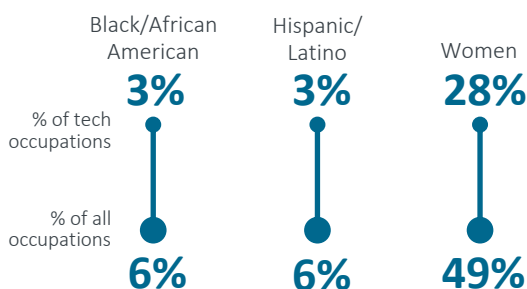
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	34,914	2.3%
Cybersecurity and Systems Engineers	13,840	1.0%
Network Engineers, Architects and Support	12,677	0.5%
IT Support Specialist and Repair Technicians	11,543	1.0%
Database, Data Science, and CS	3,615	2.1%
Emerging Tech, IT Project Mgt. and Other	3,580	2.1%

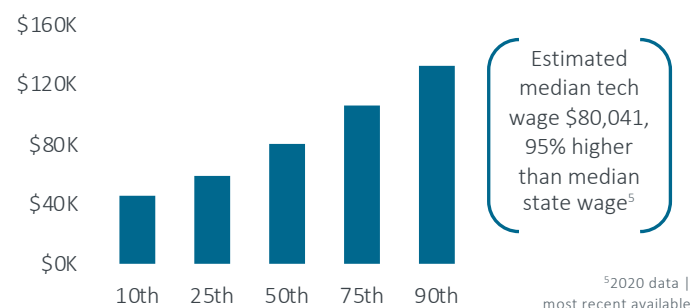
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

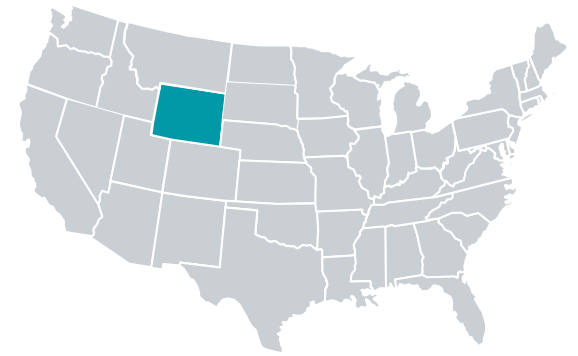
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available



# Wyoming

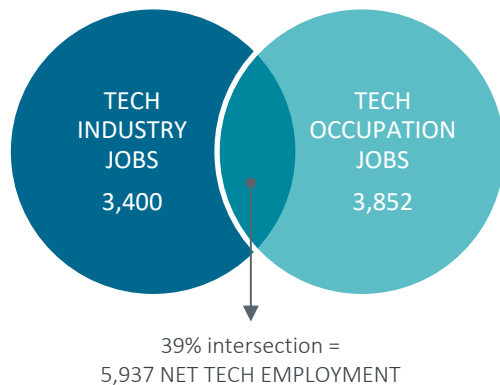


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

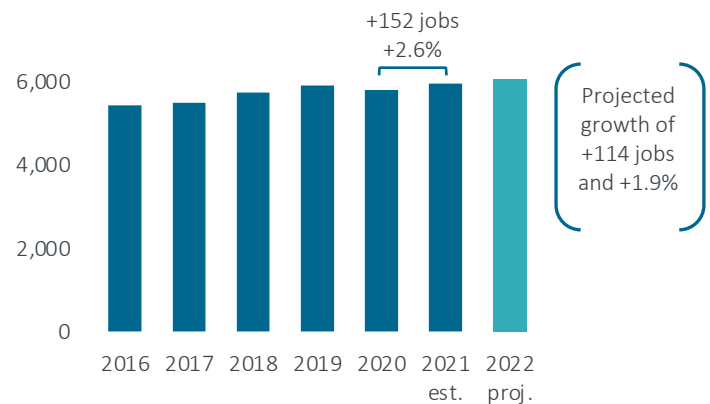
5,937 NET TECH EMPLOYMENT<sup>1</sup>  
 2.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$0.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 2.6% ECONOMIC IMPACT AS A % OF OVERALL  
 917 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 3,460 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 21.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

51<sup>st</sup> NET TECH EMPLOYMENT RANK  
 40<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 6<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

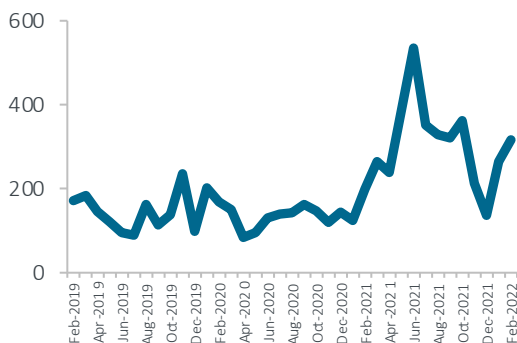


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



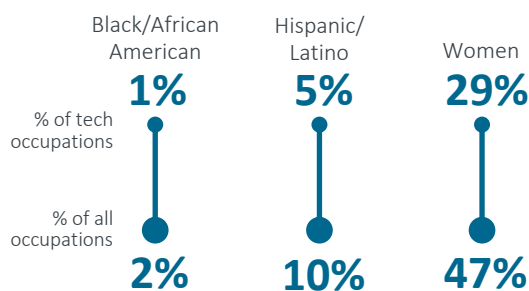
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Network Engineers, Architects and Support	934	0.1%
Software, Programmers, Web and QA	860	3.7%
IT Support Specialist and Repair Technicians	840	0.7%
Cybersecurity and Systems Engineers	378	2.9%
Database, Data Science and CS	266	1.6%
Emerging Tech, IT Project Mgt. and Other	215	2.6%

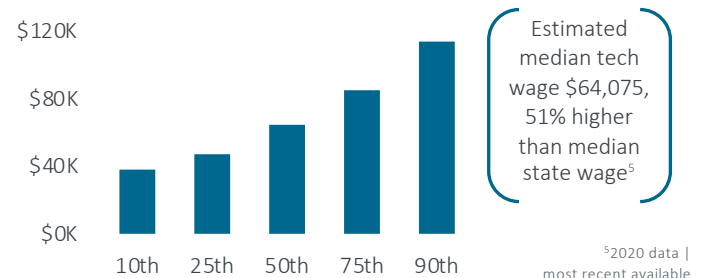
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

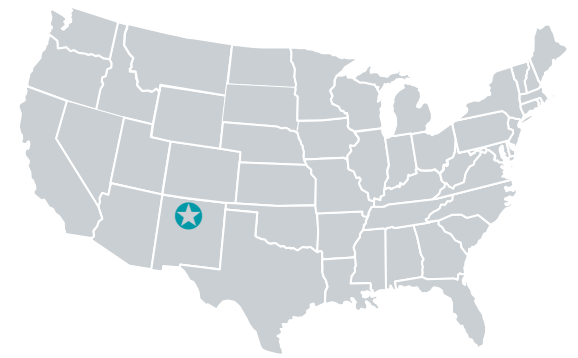
## TECH OCCUPATION WAGES [by percentile]



# METRO AREA SNAPSHOTS

# Albuquerque

Full MSA name: Albuquerque, NM

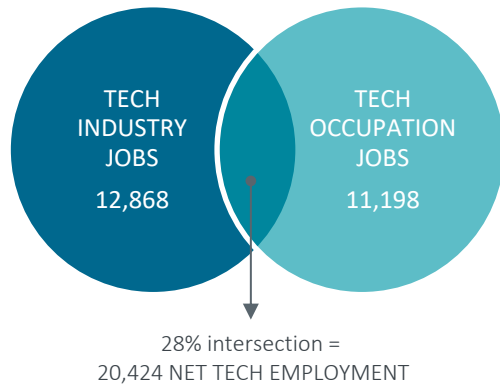


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

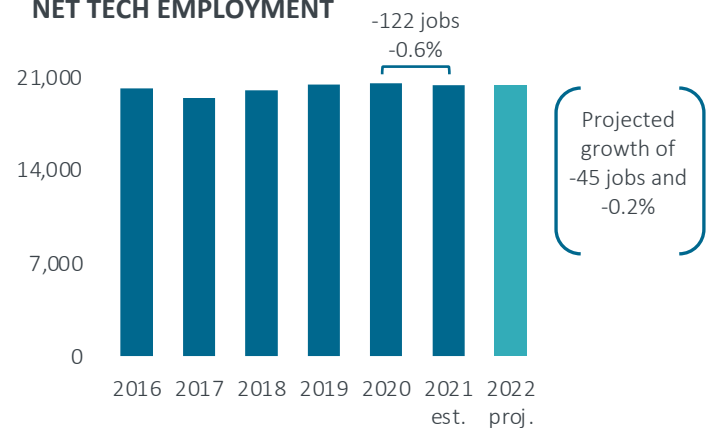
20,424 NET TECH EMPLOYMENT<sup>1</sup>  
 5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.3% ECONOMIC IMPACT AS A % OF OVERALL  
 1,062 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 8,485 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 23.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

47<sup>th</sup> NET TECH EMPLOYMENT RANK  
 35<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 28<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

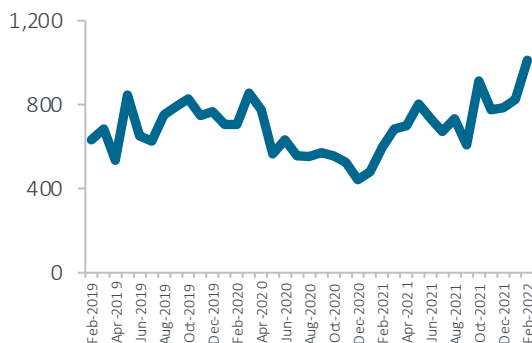


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



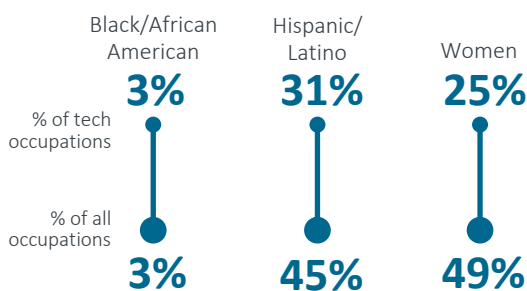
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	3,114	2.5%
Network Engineers, Architects and Support	1,857	-0.9%
IT Support Specialist and Repair Technicians	1,646	0.0%
Cybersecurity and Systems Engineers	1,466	1.7%
Emerging Tech, IT Project Mgt. and Other	951	1.8%
Database, Data Science and CS	697	2.3%

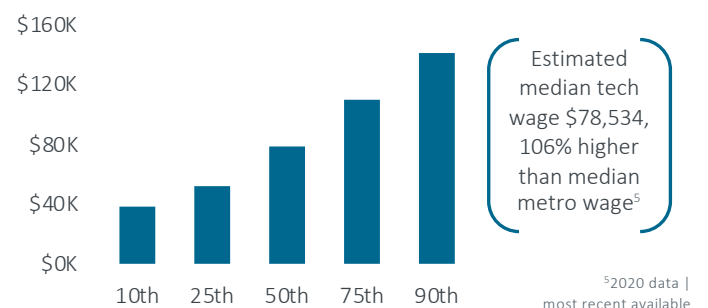
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

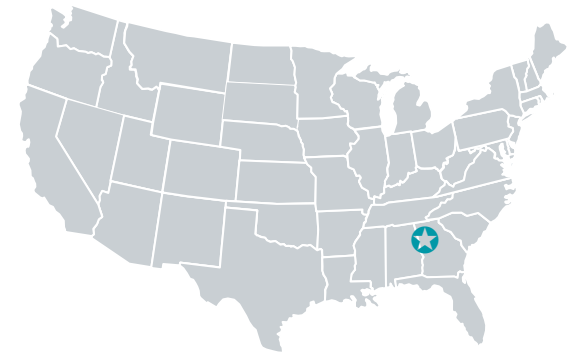
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Atlanta

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

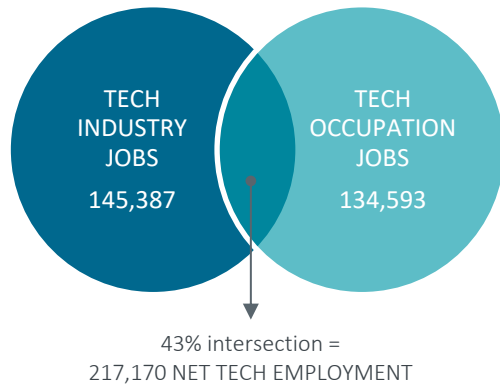


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

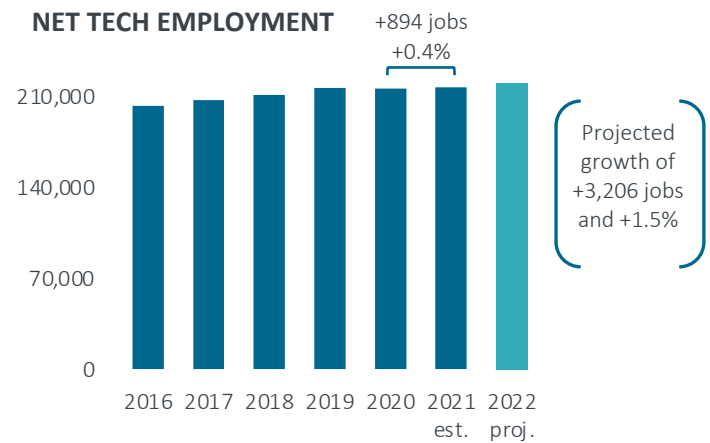
217,170 NET TECH EMPLOYMENT<sup>1</sup>  
 7.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$50.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 12.8% ECONOMIC IMPACT AS A % OF OVERALL  
 9,790 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 121,711 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

10<sup>th</sup> NET TECH EMPLOYMENT RANK  
 11<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 22<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

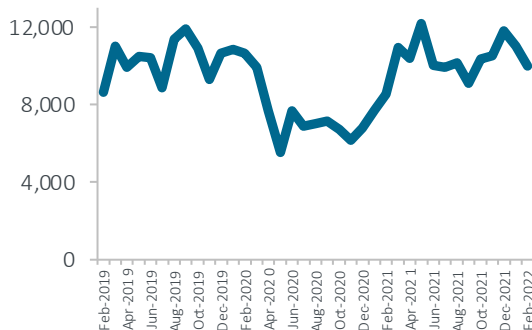


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



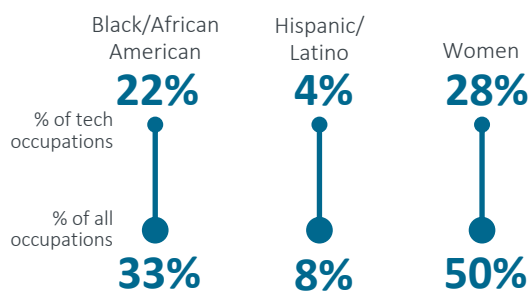
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	47,839	3.3%
Cybersecurity and Systems Engineers	18,428	2.0%
IT Support Specialist and Repair Technicians	17,954	1.4%
Network Engineers, Architects and Support	16,409	1.0%
Emerging Tech, IT Project Mgt. and Other	14,019	1.9%
Database, Data Science and CS	6,344	2.5%

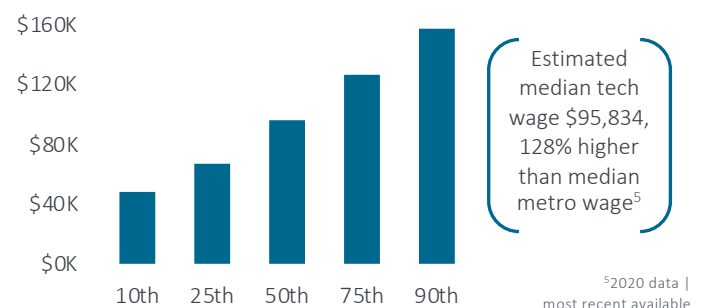
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]



# Austin

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

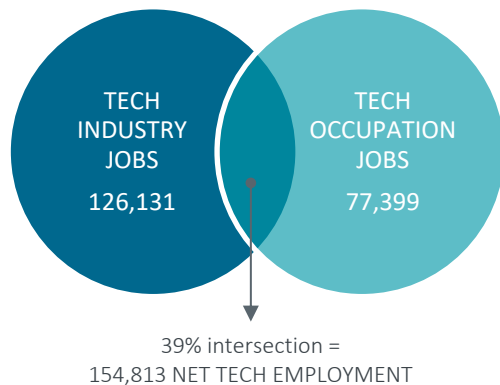


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

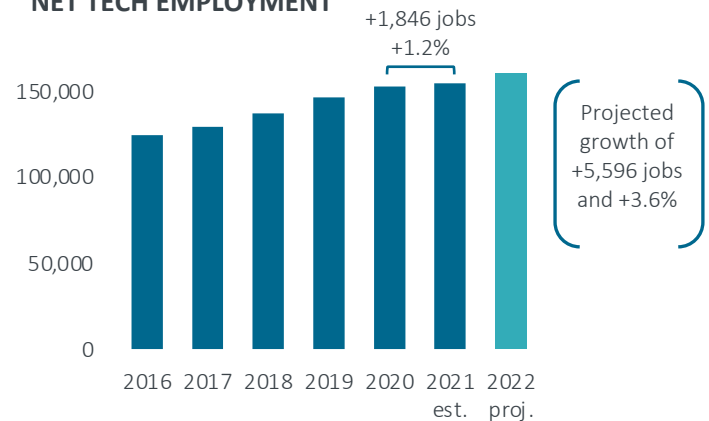
154,813 NET TECH EMPLOYMENT<sup>1</sup>  
 13.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$41.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 24.7% ECONOMIC IMPACT AS A % OF OVERALL  
 6,308 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 70,136 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 32.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

13<sup>th</sup> NET TECH EMPLOYMENT RANK  
 5<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 11<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

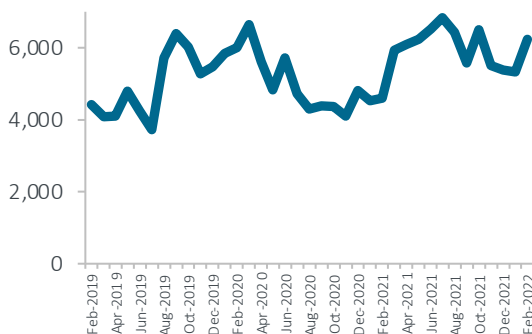


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



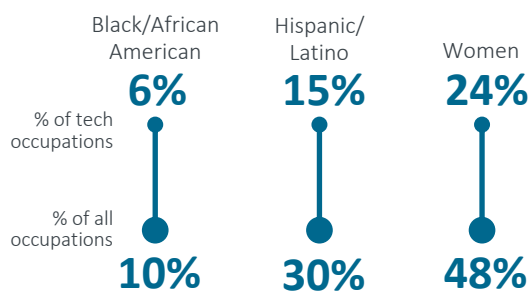
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	31,073	5.7%
Cybersecurity and Systems Engineers	10,983	4.5%
Network Engineers, Architects and Support	10,821	3.6%
IT Support Specialist and Repair Technicians	10,589	3.6%
Emerging Tech, IT Project Mgt. and Other	4,453	4.7%
Database, Data Science and CS	3,211	4.7%

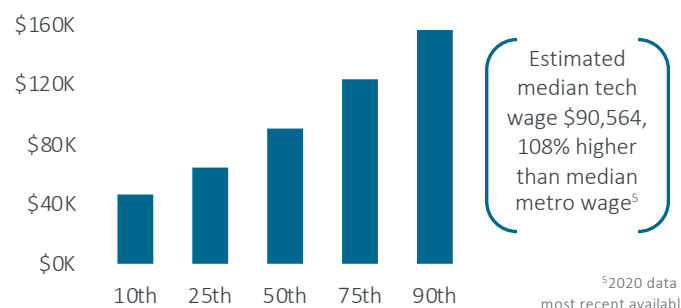
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

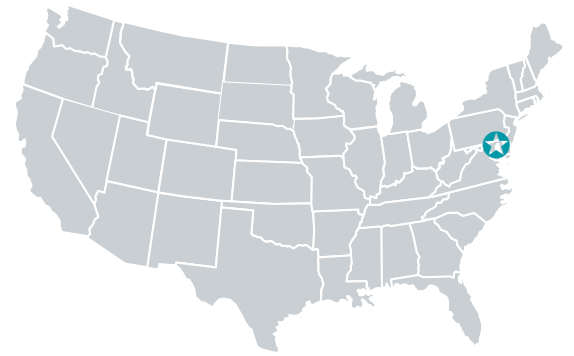
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Baltimore

Full MSA name: Baltimore-Columbia-Towson, MD

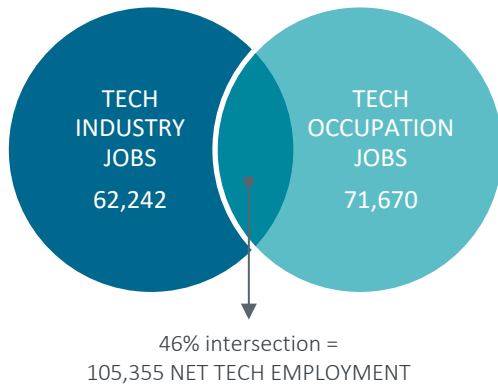


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

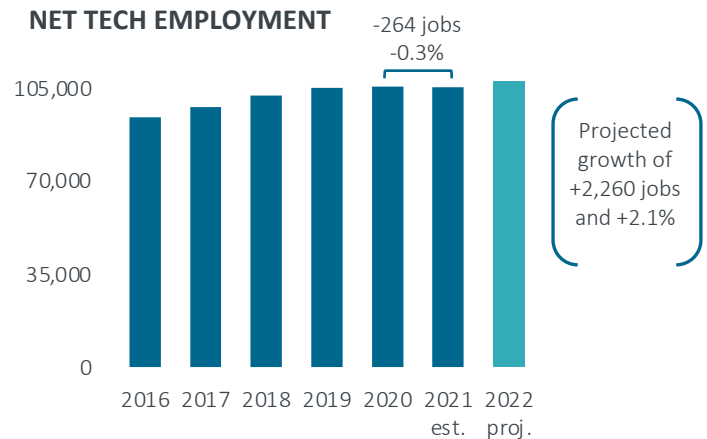
105,355 NET TECH EMPLOYMENT<sup>1</sup>  
 7.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$19.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.9% ECONOMIC IMPACT AS A % OF OVERALL  
 3,798 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 49,249 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 27.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

20<sup>th</sup> NET TECH EMPLOYMENT RANK  
 38<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 51<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

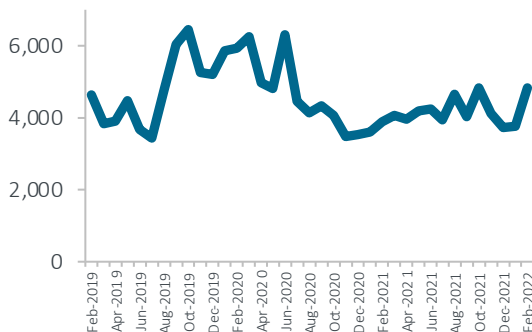


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



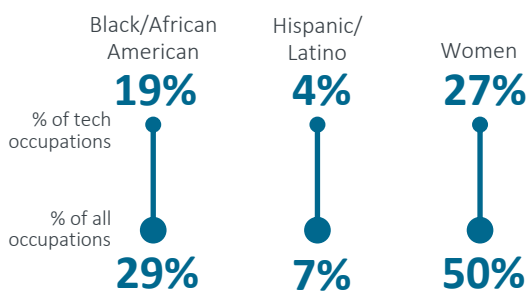
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	21,696	3.4%
Network Engineers, Architects and Support	13,661	0.7%
Cybersecurity and Systems Engineers	11,485	2.2%
Emerging Tech, IT Project Mgt. and Other	7,267	1.9%
IT Support Specialist and Repair Technicians	6,104	1.5%
Database, Data Science and CS	4,382	2.6%

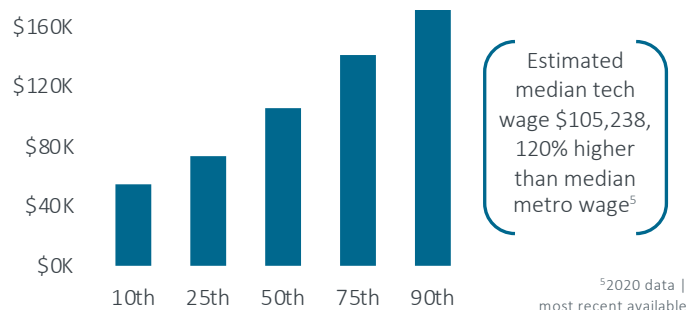
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>

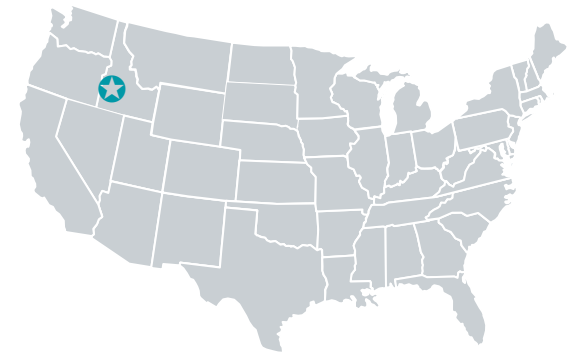


<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

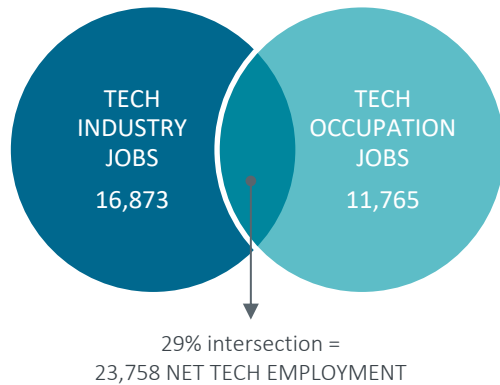


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

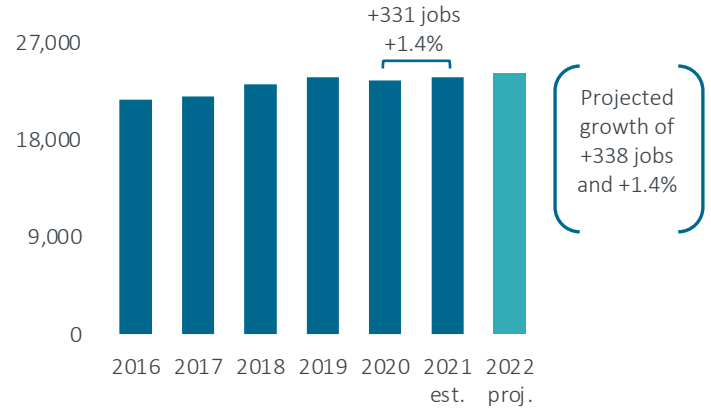
23,758 NET TECH EMPLOYMENT<sup>1</sup>  
 6.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$4.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 11.1% ECONOMIC IMPACT AS A % OF OVERALL  
 1,060 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 13,651 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

45<sup>th</sup> NET TECH EMPLOYMENT RANK  
 23<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 3<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

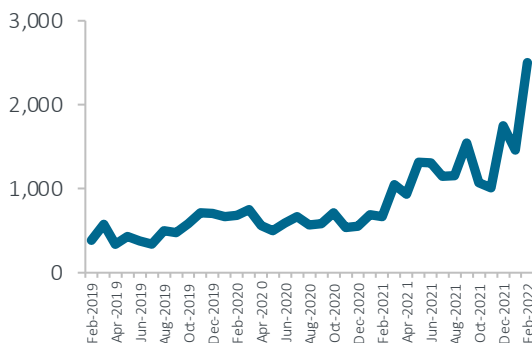


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



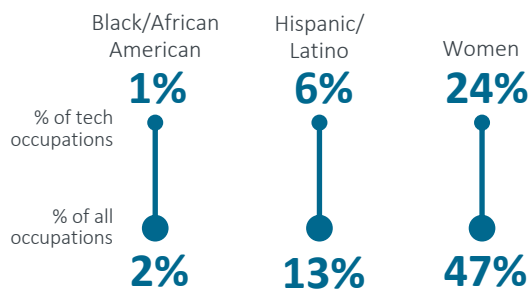
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	4,319	4.3%
IT Support Specialist and Repair Technicians	2,599	1.8%
Cybersecurity and Systems Engineers	1,412	3.5%
Network Engineers, Architects and Support	1,392	2.3%
Emerging Tech, IT Project Mgt. and Other	573	3.5%
Database, Data Science and CS	360	4.1%

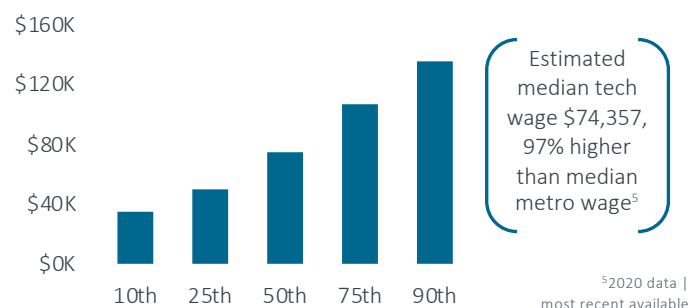
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]

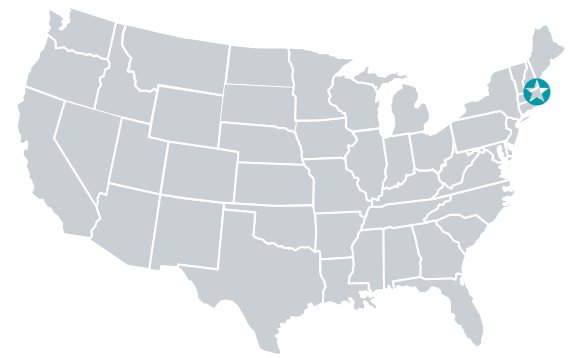


<sup>5</sup>2020 data | most recent available



# Boston

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

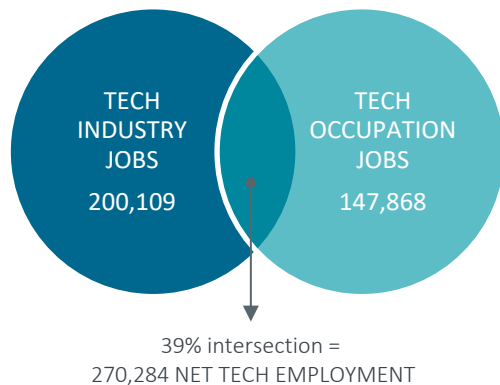


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

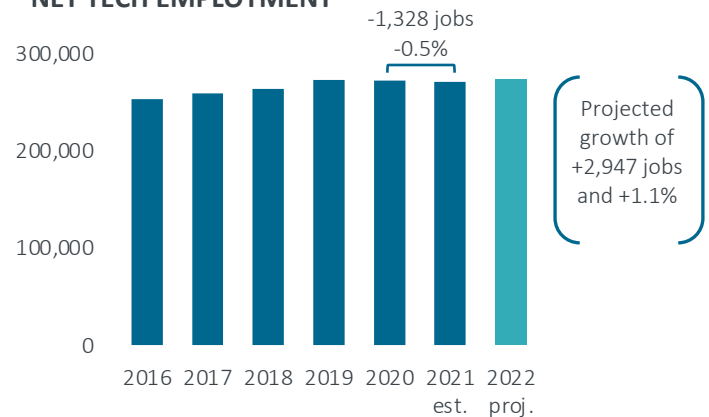
270,284 NET TECH EMPLOYMENT<sup>1</sup>  
 10.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$72.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 15.6% ECONOMIC IMPACT AS A % OF OVERALL  
 10,026 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 101,128 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 41.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

8<sup>th</sup> NET TECH EMPLOYMENT RANK  
 47<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 25<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

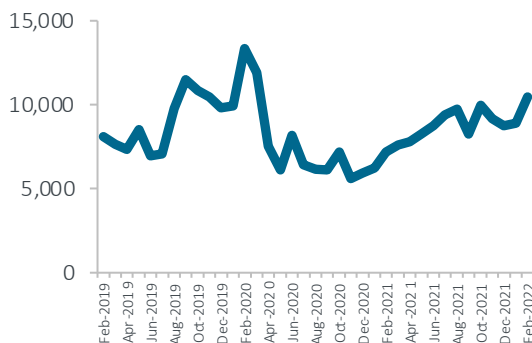


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



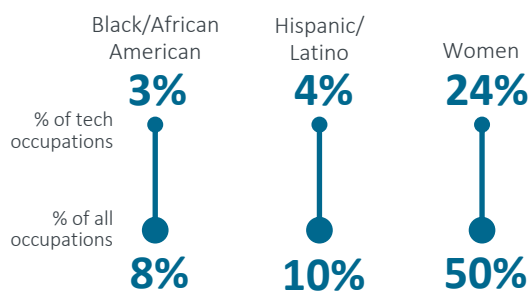
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	64,023	2.6%
Cybersecurity and Systems Engineers	18,566	1.8%
IT Support Specialist and Repair Technicians	17,957	0.7%
Network Engineers, Architects and Support	15,013	0.9%
Emerging Tech, IT Project Mgt. and Other	7,877	1.6%
Database, Data Science and CS	4,895	2.7%

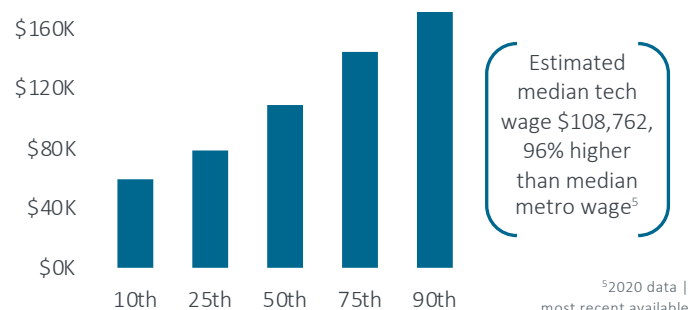
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

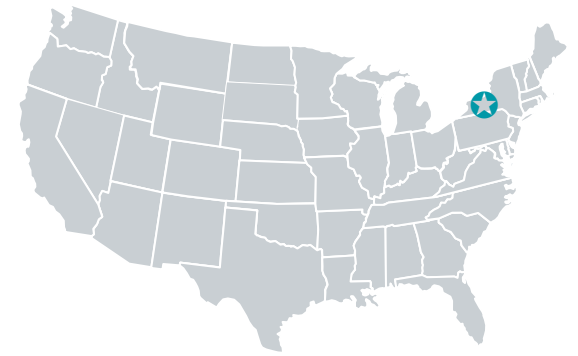
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Buffalo

Full MSA name: Buffalo-Cheektowaga, NY

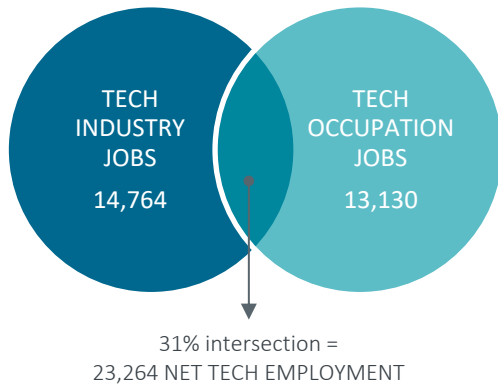


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

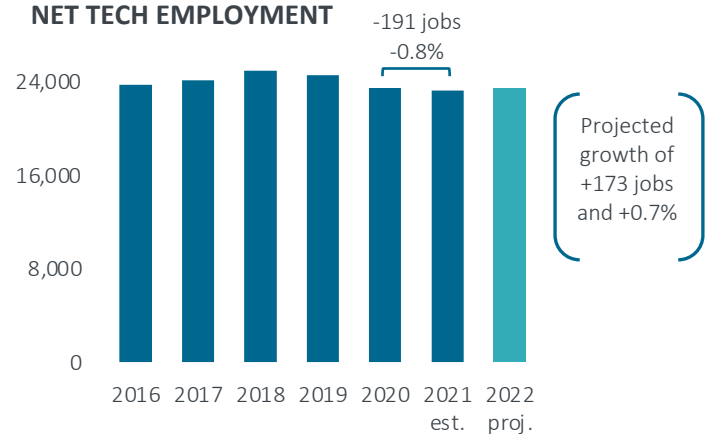
23,264 NET TECH EMPLOYMENT<sup>1</sup>  
 4.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.1% ECONOMIC IMPACT AS A % OF OVERALL  
 762 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 9,013 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

46<sup>th</sup> NET TECH EMPLOYMENT RANK  
 36<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 48<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

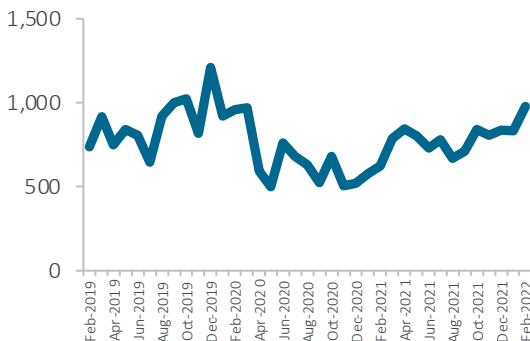


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



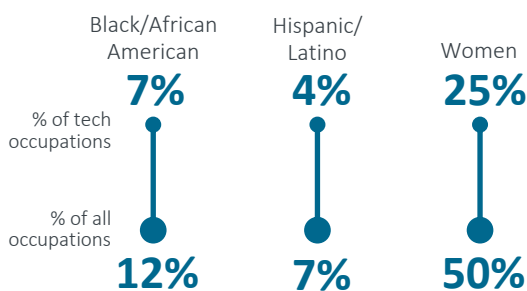
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	4,396	1.6%
IT Support Specialist and Repair Technicians	2,770	-0.7%
Network Engineers, Architects and Support	2,077	-0.4%
Cybersecurity and Systems Engineers	1,778	0.6%
Database, Data Science and CS	479	0.6%
Emerging Tech, IT Project Mgt. and Other	448	1.9%

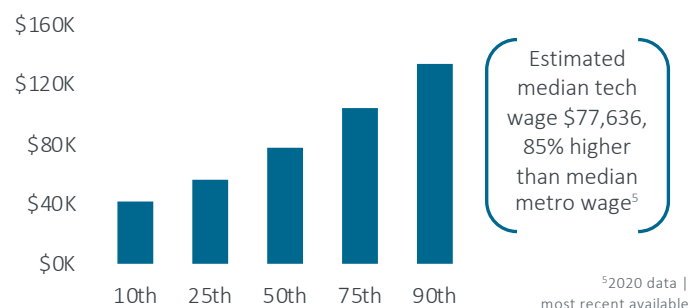
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

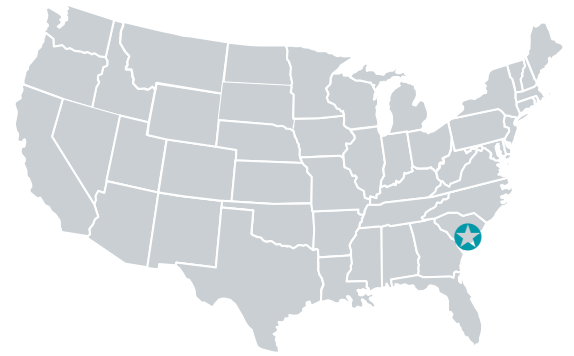
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Charleston

Full MSA name: Charleston-North Charleston, SC

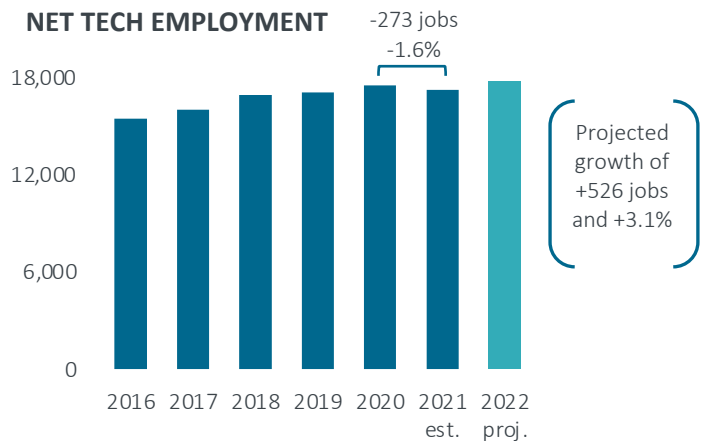
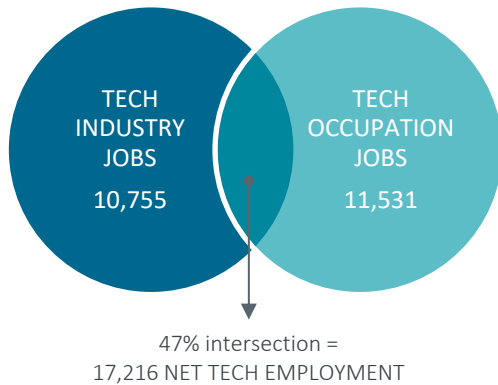


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

17,216 NET TECH EMPLOYMENT<sup>1</sup>  
 4.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.4% ECONOMIC IMPACT AS A % OF OVERALL  
 1,208 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 6,062 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

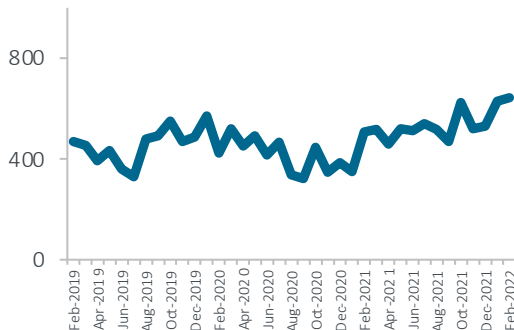
49<sup>th</sup> NET TECH EMPLOYMENT RANK  
 39<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 4<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



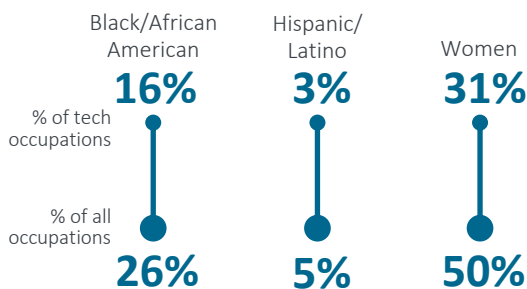
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	2,938	4.5%
Cybersecurity and Systems Engineers	2,606	2.1%
IT Support Specialist and Repair Technicians	2,056	1.8%
Network Engineers, Architects and Support	1,685	1.7%
Emerging Tech, IT Project Mgt. and Other	874	2.9%
Database, Data Science and CS	505	4.1%

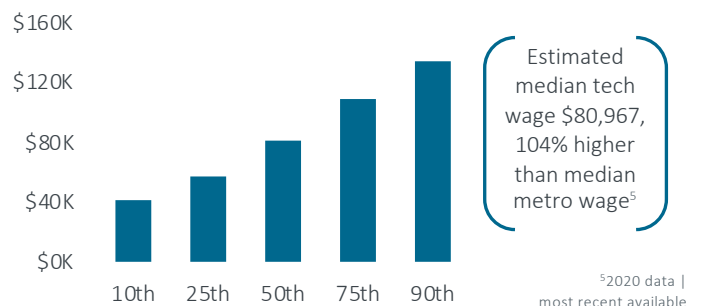
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



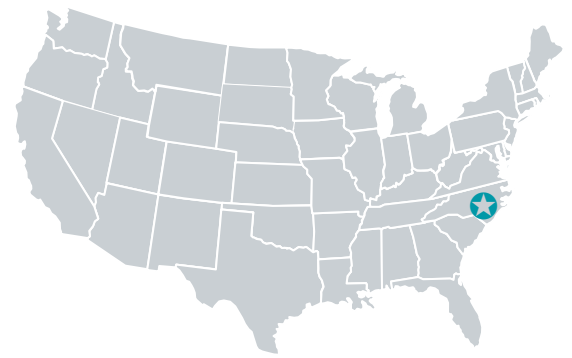
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Charlotte

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

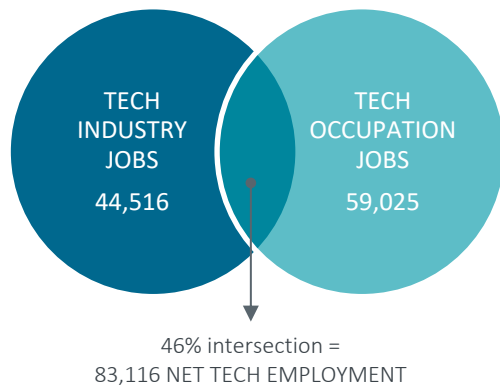


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

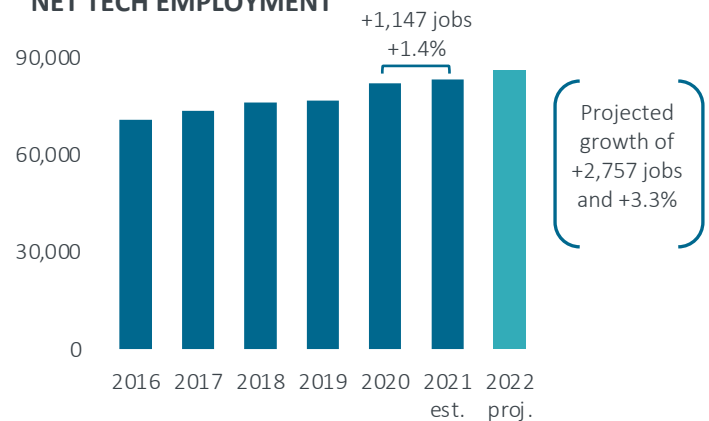
83,116 NET TECH EMPLOYMENT<sup>1</sup>  
 6.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$12.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 7.2% ECONOMIC IMPACT AS A % OF OVERALL  
 4,101 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 57,425 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

23<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 7<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 35<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

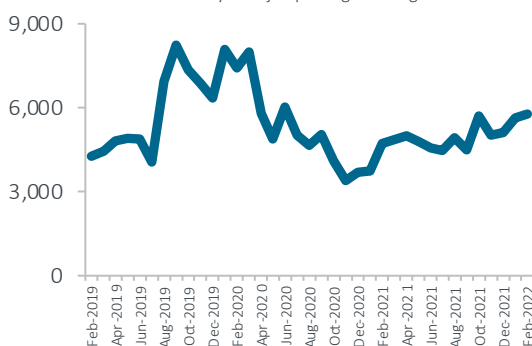


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



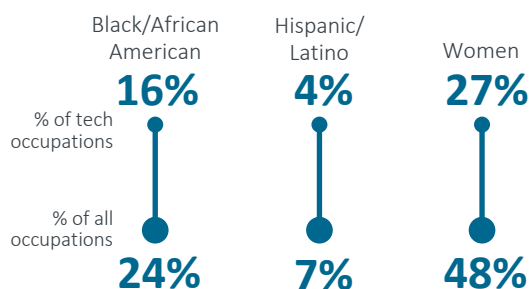
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	18,425	4.1%
Cybersecurity and Systems Engineers	14,205	2.3%
IT Support Specialist and Repair Technicians	8,323	2.2%
Network Engineers, Architects and Support	7,821	2.3%
Database, Data Science and CS	2,707	2.7%
Emerging Tech, IT Project Mgt. and Other	1,478	4.2%

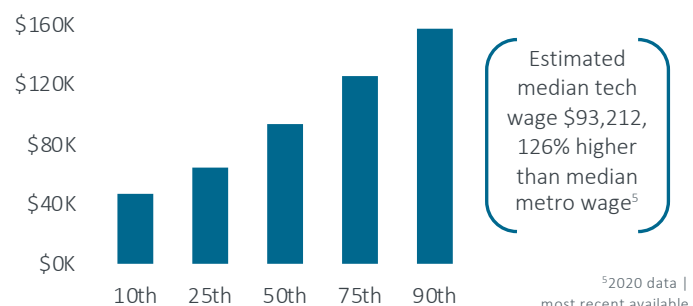
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

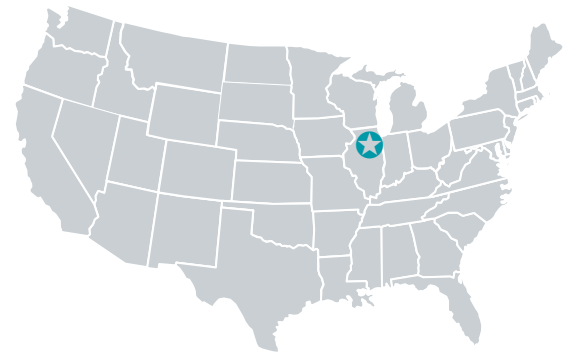
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Chicago

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

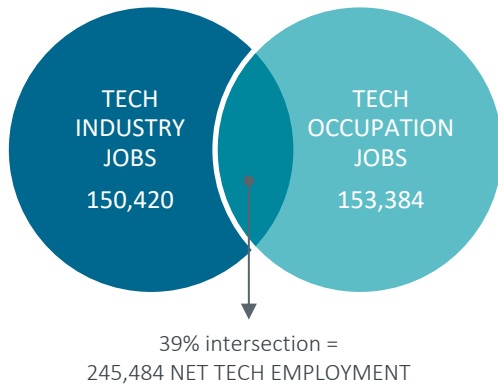


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

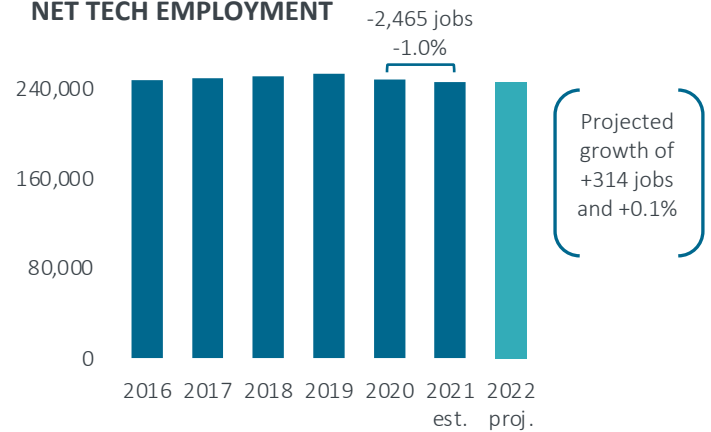
245,484 NET TECH EMPLOYMENT<sup>1</sup>  
 5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$48.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 7.4% ECONOMIC IMPACT AS A % OF OVERALL  
 10,652 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 132,225 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

9<sup>th</sup> NET TECH EMPLOYMENT RANK  
 50<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 47<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

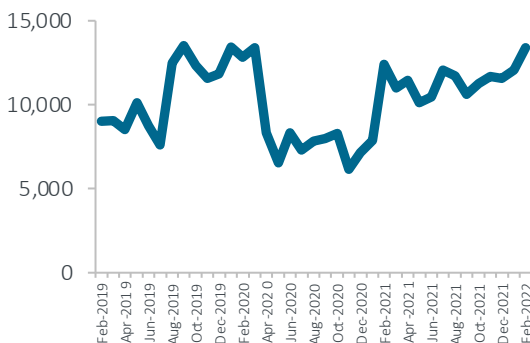


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



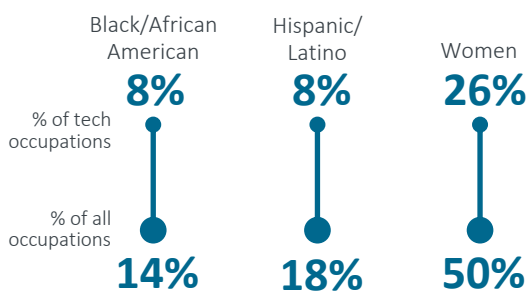
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	55,037	1.6%
Cybersecurity and Systems Engineers	23,220	0.3%
Network Engineers, Architects and Support	22,803	-0.8%
IT Support Specialist and Repair Technicians	19,042	-0.1%
Emerging Tech, IT Project Mgt. and Other	8,470	0.6%
Database, Data Science and CS	7,141	1.0%

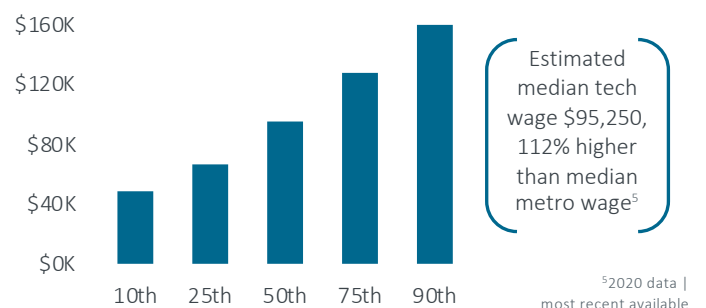
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



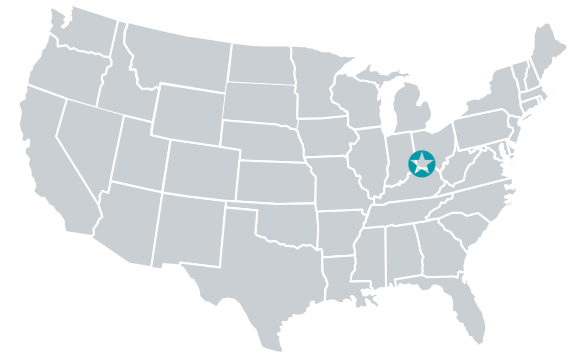
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Cincinnati

Full MSA name: Cincinnati, OH-KY-IN

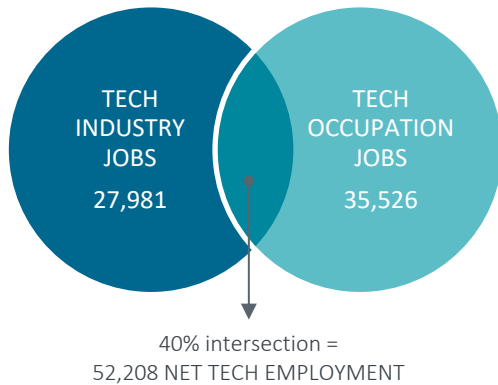


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

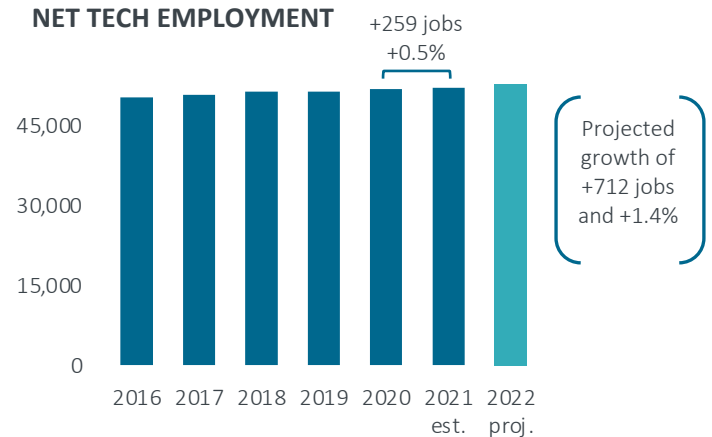
52,208 NET TECH EMPLOYMENT<sup>1</sup>  
 4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$6.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.9% ECONOMIC IMPACT AS A % OF OVERALL  
 3,149 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 23,663 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

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

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

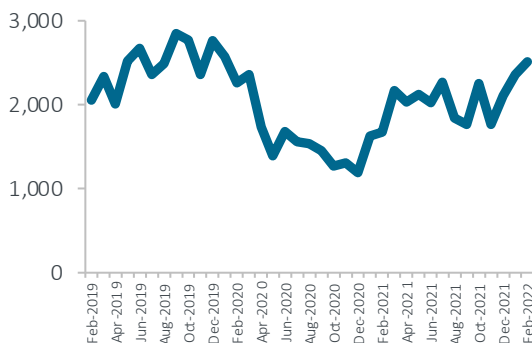


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



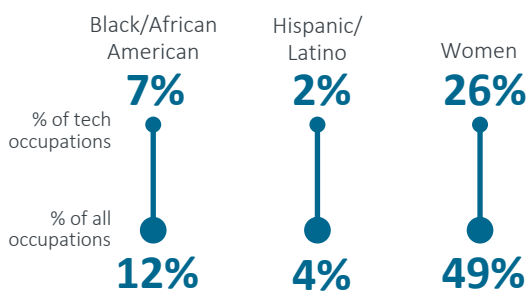
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	12,323	2.3%
IT Support Specialist and Repair Technicians	5,749	0.7%
Network Engineers, Architects and Support	5,738	0.5%
Cybersecurity and Systems Engineers	5,431	1.2%
Emerging Tech, IT Project Mgt. and Other	1,930	1.3%
Database, Data Science and CS	1,372	2.0%

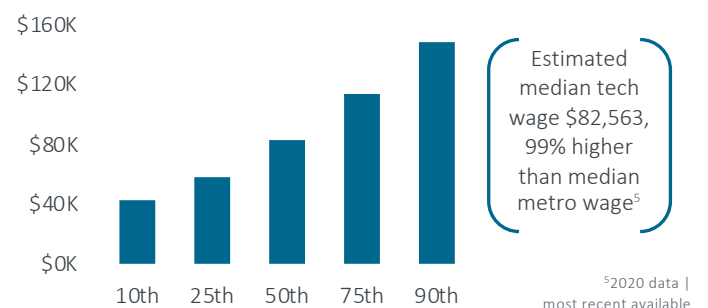
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

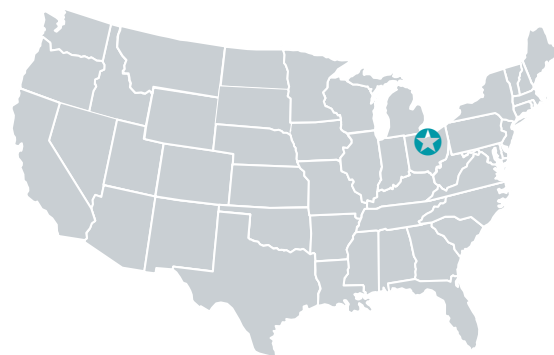
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Cleveland

Full MSA name: Cleveland-Elyria, OH

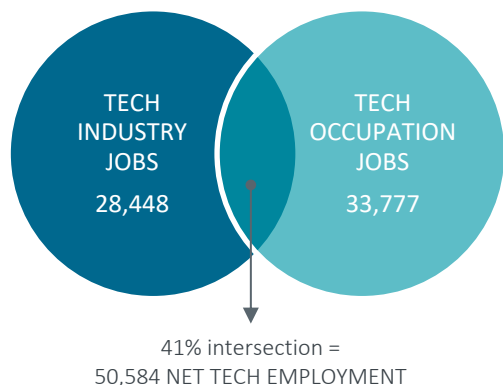


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

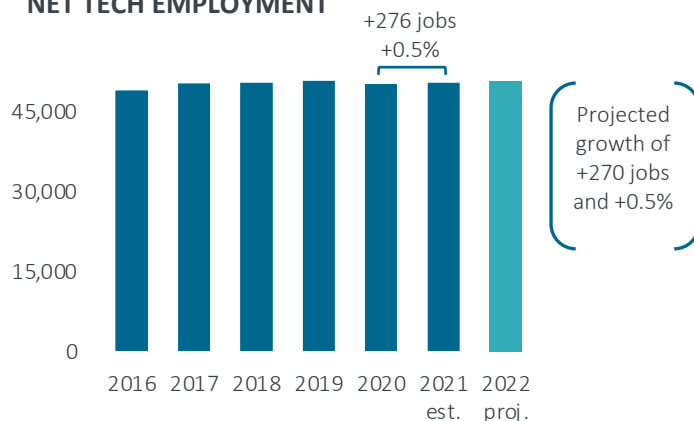
50,584 NET TECH EMPLOYMENT<sup>1</sup>  
 5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$6.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.0% ECONOMIC IMPACT AS A % OF OVERALL  
 2,593 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 18,342 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 23.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

33<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 24<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 16<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

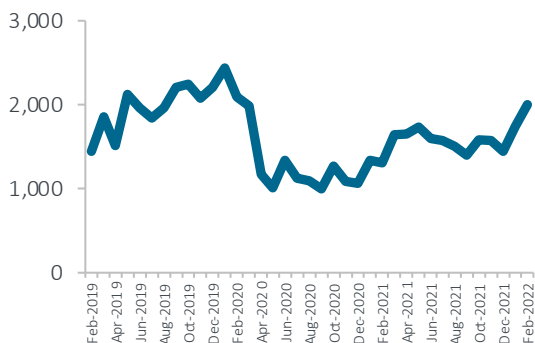


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



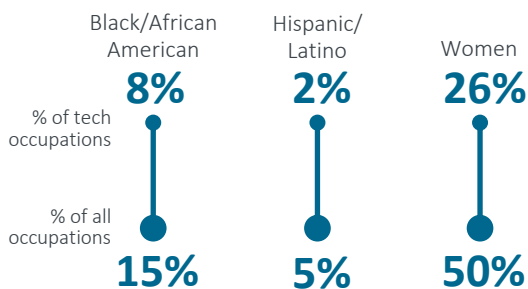
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	11,394	2.0%
Cybersecurity and Systems Engineers	6,862	0.3%
IT Support Specialist and Repair Technicians	4,872	0.0%
Network Engineers, Architects and Support	4,762	-0.4%
Emerging Tech, IT Project Mgt. and Other	1,930	0.7%
Database, Data Science and CS	1,087	1.0%

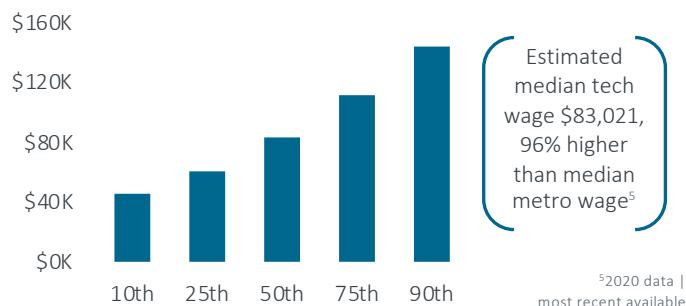
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

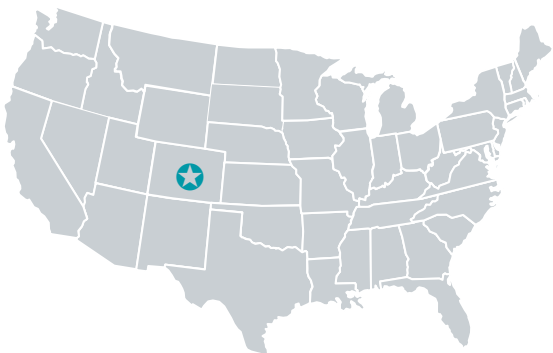
### TECH OCCUPATION WAGES [by percentile]





# Colorado Springs

Full MSA name:  
Colorado Springs, CO

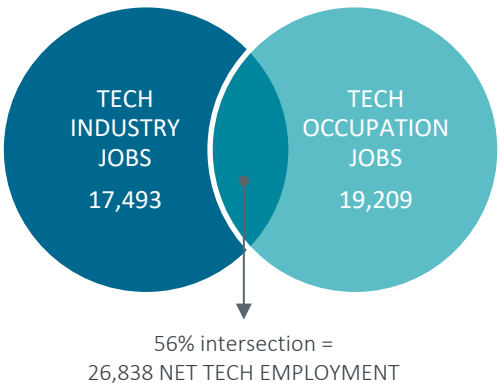


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

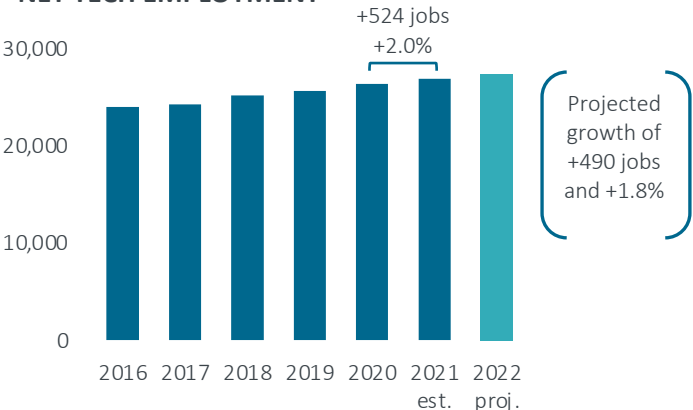
- 26,838 NET TECH EMPLOYMENT<sup>1</sup>
- 8.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE
- \$3.4b ECONOMIC IMPACT [estimated direct impact of tech sector]
- 8.6% ECONOMIC IMPACT AS A % OF OVERALL
- 1,738 TECH BUSINESS ESTABLISHMENTS [firms with payroll]
- 17,031 EMPLOYER JOB POSTINGS [2021 total for tech occupations]
- 22.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

- 42<sup>nd</sup> NET TECH EMPLOYMENT RANK
- 18<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK
- 9<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK
- 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

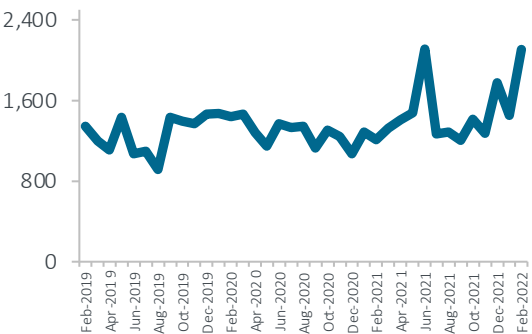


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



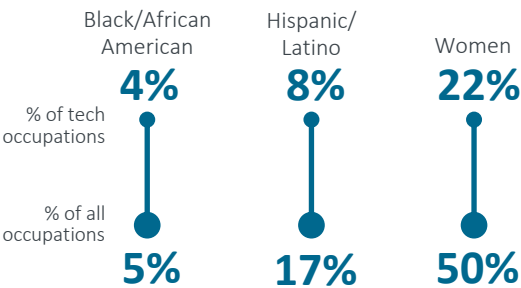
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	7,819	3.5%
Network Engineers, Architects and Support	2,582	1.5%
Cybersecurity and Systems Engineers	2,544	3.5%
IT Support Specialist and Repair Technicians	2,078	2.2%
Emerging Tech, IT Project Mgt. and Other	1,907	2.2%
Database, Data Science and CS	502	3.6%

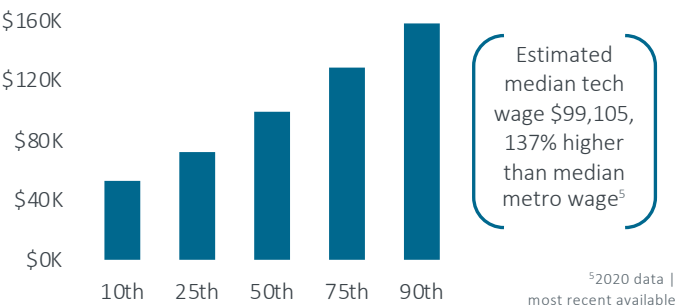
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



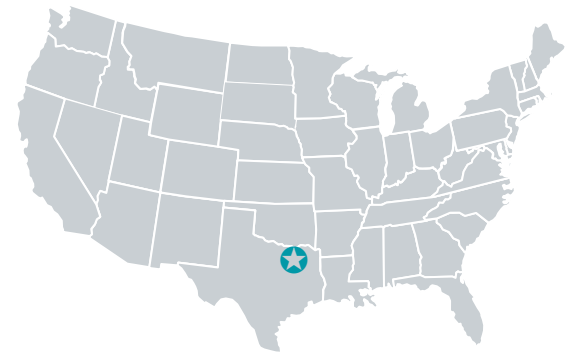
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Dallas

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

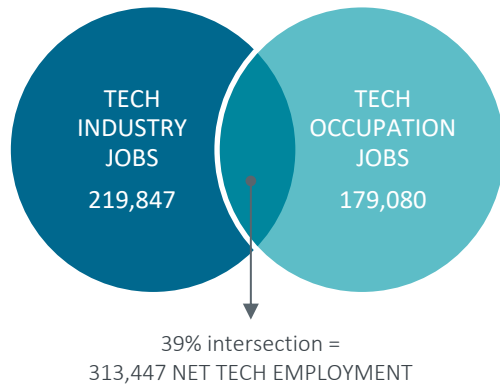


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

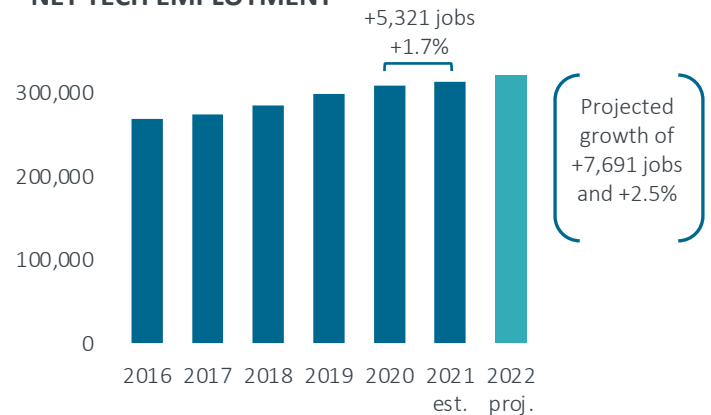
313,447 NET TECH EMPLOYMENT<sup>1</sup>  
 8.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$68.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 12.6% ECONOMIC IMPACT AS A % OF OVERALL  
 11,943 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 172,936 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

6<sup>th</sup> NET TECH EMPLOYMENT RANK  
 1<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 30<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

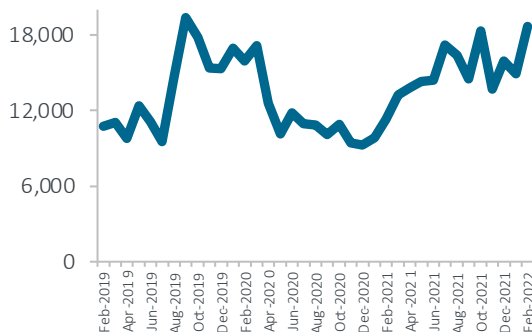


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



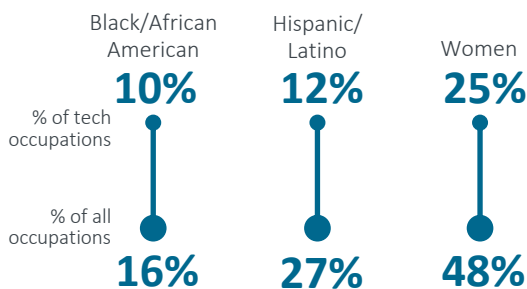
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	65,542	4.3%
Cybersecurity and Systems Engineers	27,169	3.1%
IT Support Specialist and Repair Technicians	26,089	2.4%
Network Engineers, Architects and Support	25,856	2.1%
Emerging Tech, IT Project Mgt. and Other	12,202	2.9%
Database, Data Science and CS	7,677	3.4%

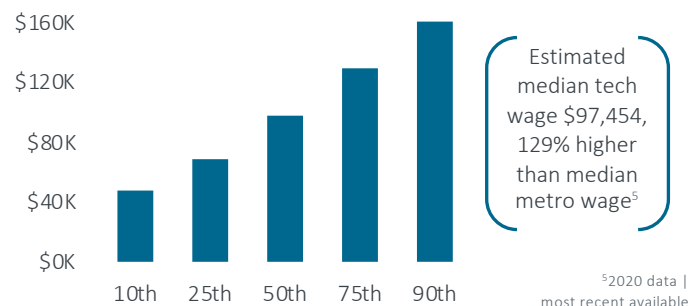
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

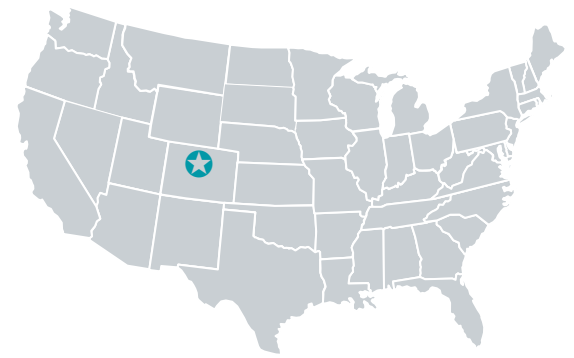
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Denver

Full MSA name: Denver-Aurora-Lakewood, CO

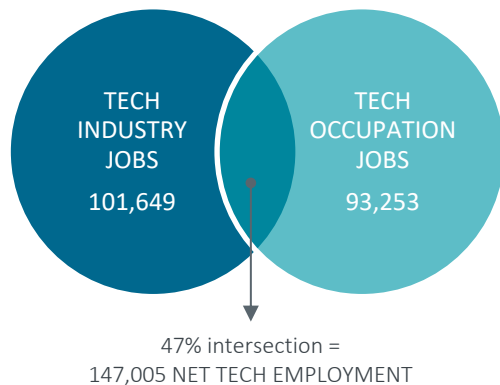


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

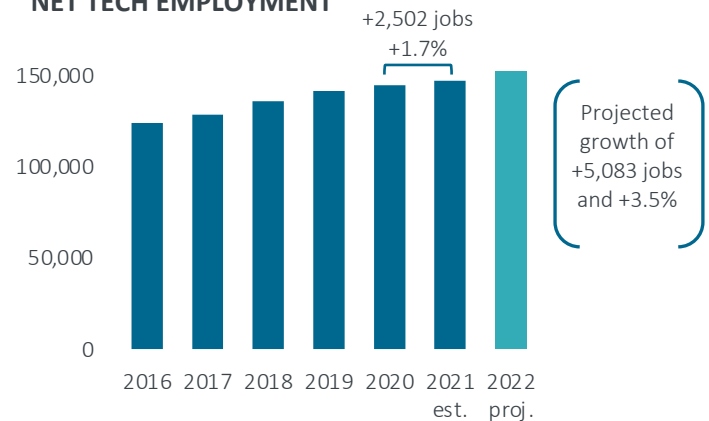
147,005 NET TECH EMPLOYMENT<sup>1</sup>  
 9.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$32.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 14.2% ECONOMIC IMPACT AS A % OF OVERALL  
 9,879 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 80,603 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 27.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

15<sup>th</sup> NET TECH EMPLOYMENT RANK  
 3<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 12<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

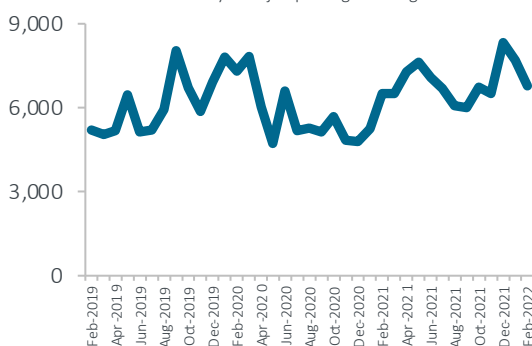


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



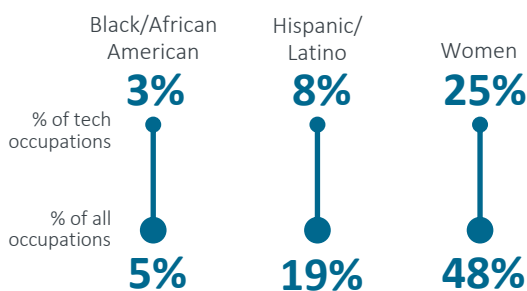
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	36,989	4.8%
Network Engineers, Architects and Support	15,332	2.1%
Cybersecurity and Systems Engineers	11,028	3.8%
IT Support Specialist and Repair Technicians	10,913	3.0%
Emerging Tech, IT Project Mgt. and Other	7,819	2.8%
Database, Data Science and CS	3,457	4.0%

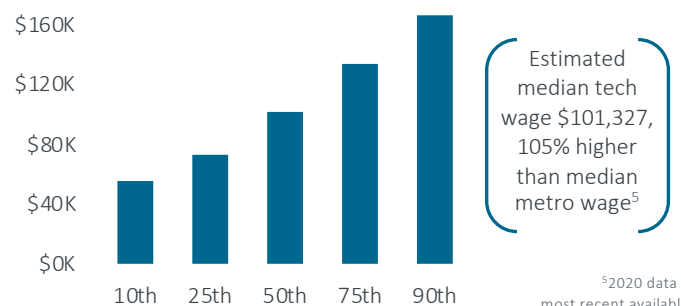
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Des Moines

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

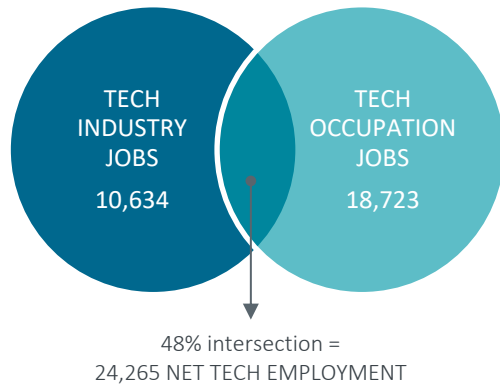


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

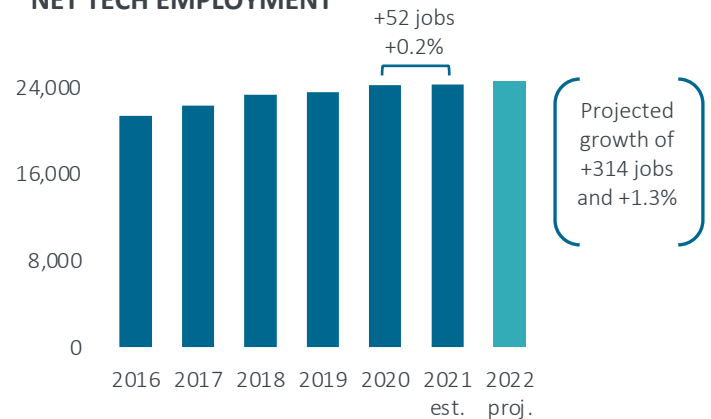
24,265 NET TECH EMPLOYMENT<sup>1</sup>  
 6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.6% ECONOMIC IMPACT AS A % OF OVERALL  
 1,610 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 16,262 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 18.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

44<sup>th</sup> NET TECH EMPLOYMENT RANK  
 31<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 37<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

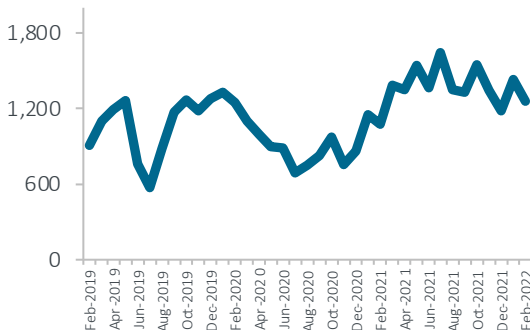


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



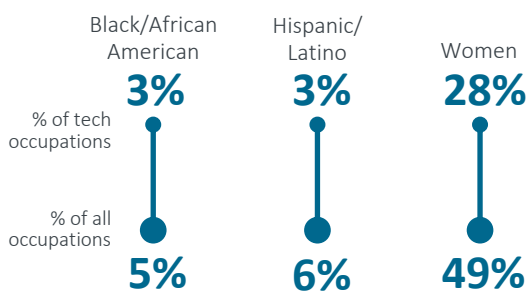
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	6,166	2.4%
Cybersecurity and Systems Engineers	4,069	1.1%
IT Support Specialist and Repair Technicians	2,523	0.7%
Network Engineers, Architects and Support	2,344	0.8%
Database, Data Science and CS	1,096	2.3%
Emerging Tech, IT Project Mgt. and Other	645	2.0%

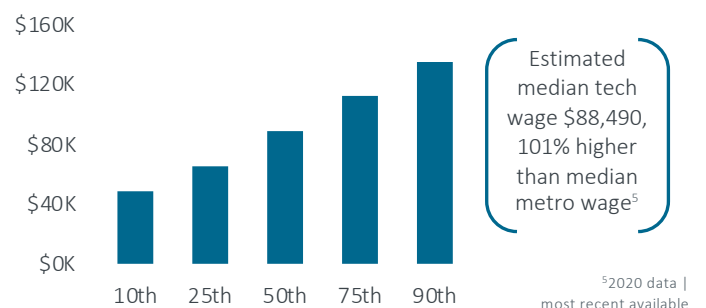
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Detroit

Full MSA name: Detroit-Warren-Dearborn, MI

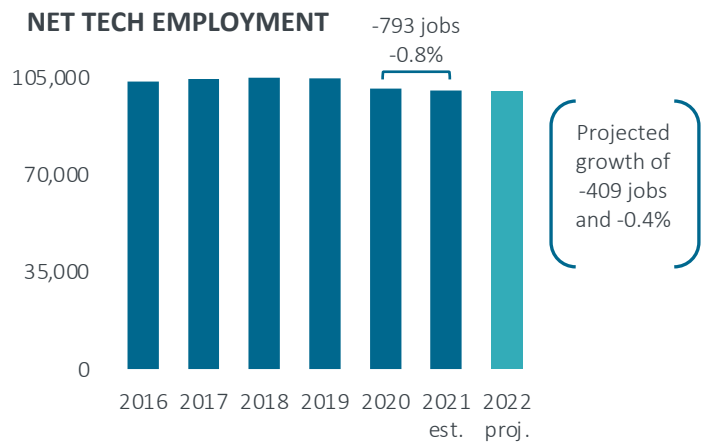
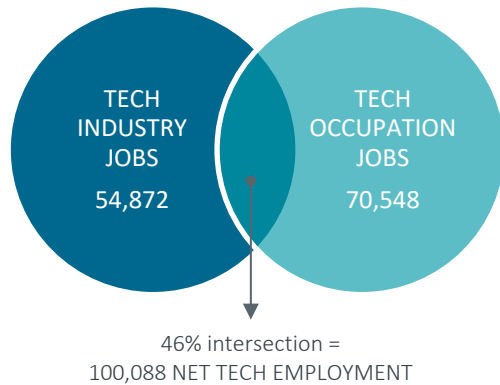


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

100,088 NET TECH EMPLOYMENT<sup>1</sup>  
 5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$12.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.0% ECONOMIC IMPACT AS A % OF OVERALL  
 3,503 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 57,515 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

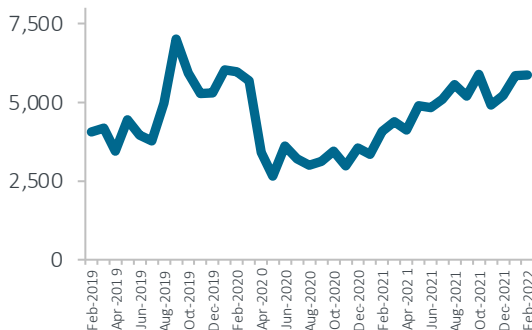
21<sup>st</sup> NET TECH EMPLOYMENT RANK  
 44<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 49<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



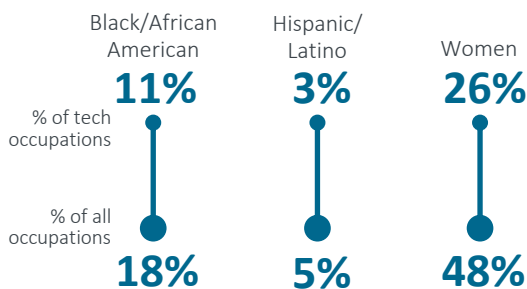
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	28,154	0.9%
Cybersecurity and Systems Engineers	11,549	-0.2%
IT Support Specialist and Repair Technicians	10,406	-1.0%
Network Engineers, Architects and Support	6,371	-0.5%
Emerging Tech, IT Project Mgt. and Other	4,605	0.0%
Database, Data Science, and CS	2,543	1.2%

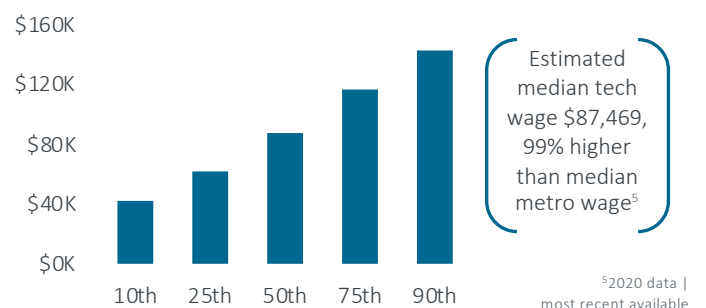
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



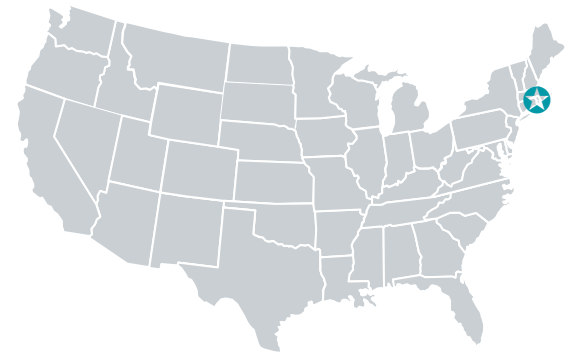
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Hartford

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

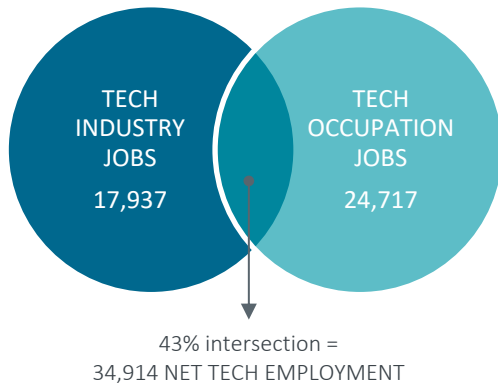


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

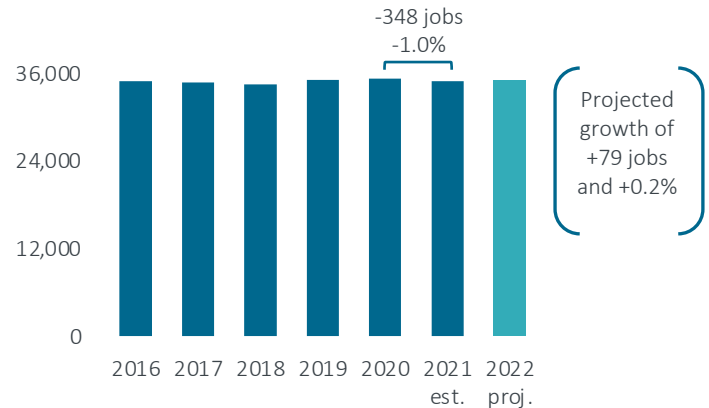
34,914 NET TECH EMPLOYMENT<sup>1</sup>  
 5.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$4.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.7% ECONOMIC IMPACT AS A % OF OVERALL  
 2,129 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 23,467 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

37<sup>th</sup> NET TECH EMPLOYMENT RANK  
 43<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 20<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

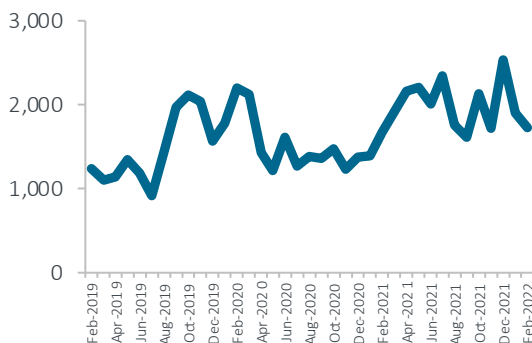


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



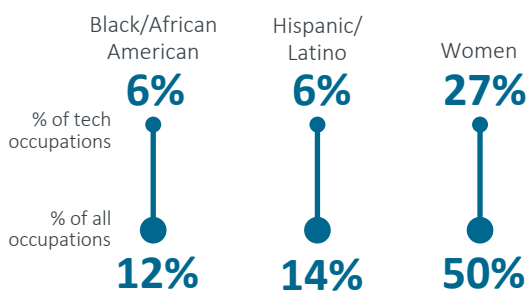
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	8,740	1.3%
IT Support Specialist and Repair Technicians	3,938	-0.2%
Cybersecurity and Systems Engineers	3,812	0.3%
Network Engineers, Architects and Support	1,990	0.2%
Database, Data Science and CS	1,094	1.1%
Emerging Tech, IT Project Mgt. and Other	619	1.0%

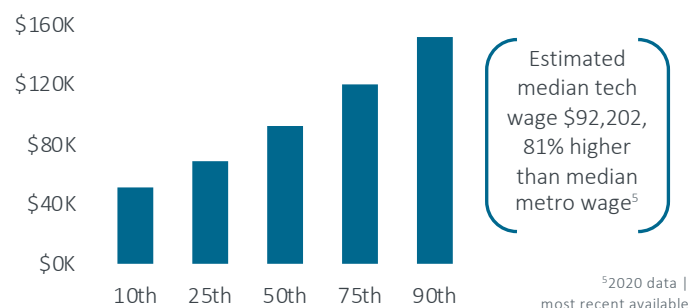
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

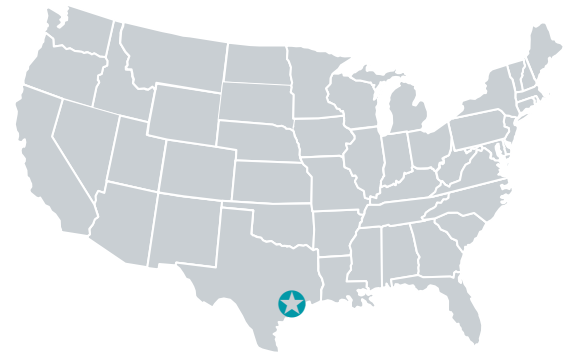
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Houston

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

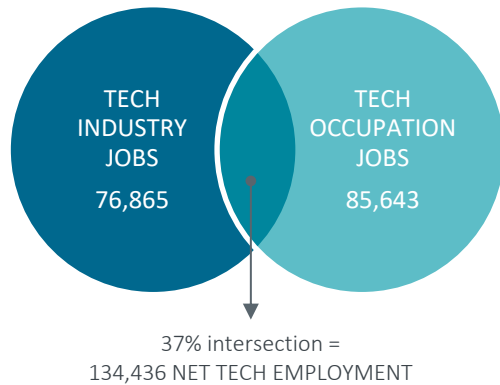


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

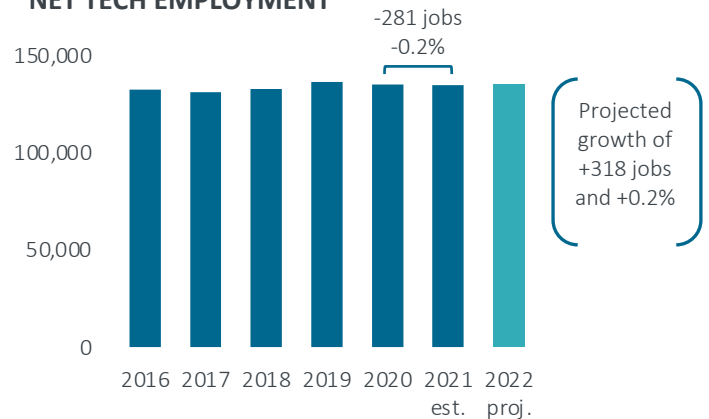
134,436 NET TECH EMPLOYMENT<sup>1</sup>  
 4.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$17.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.6% ECONOMIC IMPACT AS A % OF OVERALL  
 6,982 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 54,413 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

16<sup>th</sup> NET TECH EMPLOYMENT RANK  
 40<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 31<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

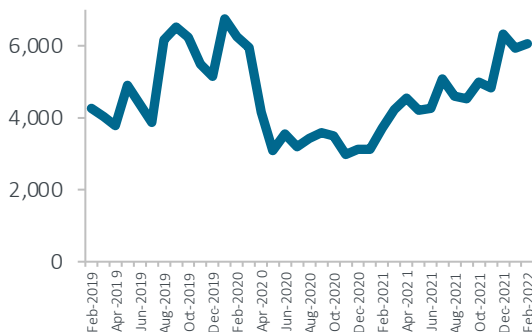


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



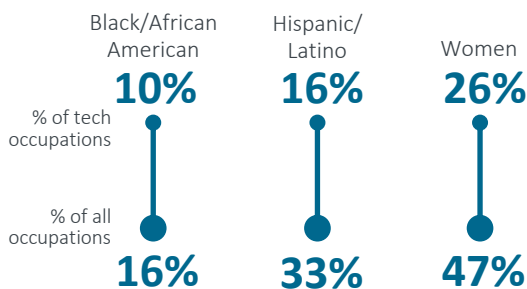
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	26,487	2.0%
Cybersecurity and Systems Engineers	16,034	0.2%
IT Support Specialist and Repair Technicians	14,697	0.7%
Network Engineers, Architects and Support	13,247	0.1%
Emerging Tech, IT Project Mgt. and Other	4,814	1.7%
Database, Data Science, and CS	3,453	2.0%

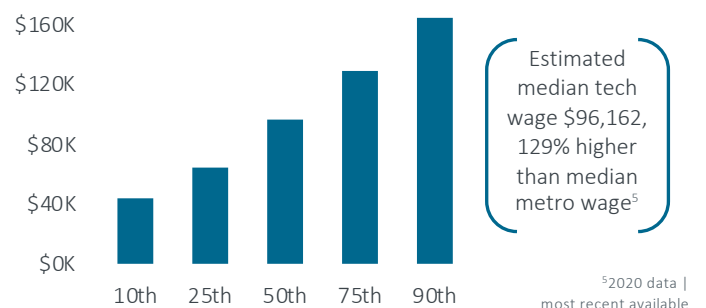
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



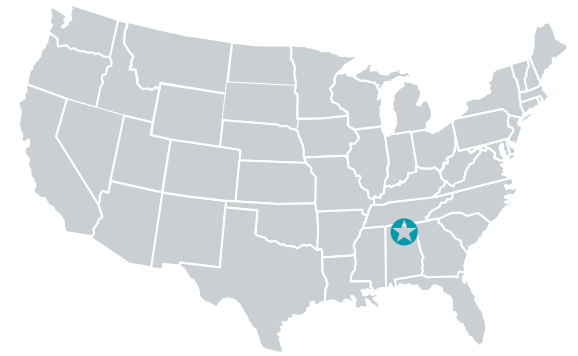
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Huntsville

Full MSA name: Huntsville, AL

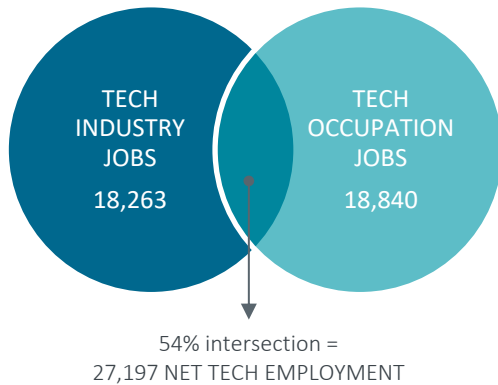


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

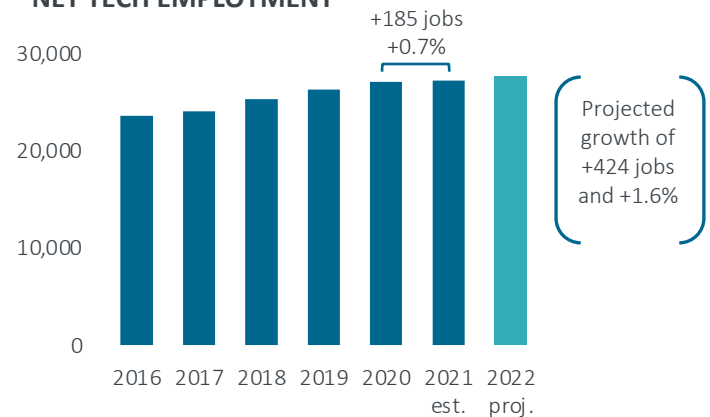
27,197 NET TECH EMPLOYMENT<sup>1</sup>  
 11.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$3.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 11.1% ECONOMIC IMPACT AS A % OF OVERALL  
 671 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 15,227 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.4% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

41<sup>st</sup> NET TECH EMPLOYMENT RANK  
 28<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 7<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

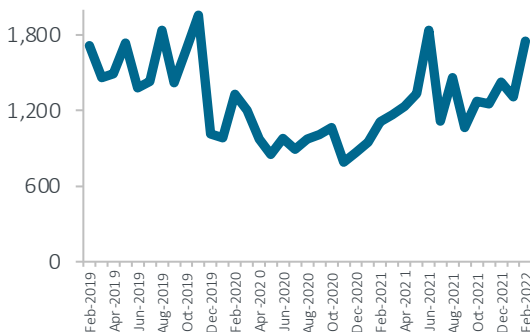


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



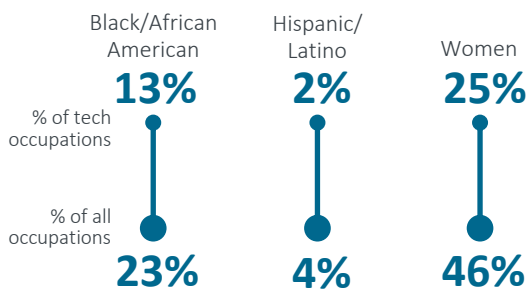
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	8,476	2.9%
Cybersecurity and Systems Engineers	2,892	2.7%
Network Engineers, Architects and Support	2,190	1.5%
IT Support Specialist and Repair Technicians	1,545	2.5%
Emerging Tech, IT Project Mgt. and Other	821	3.4%
Database, Data Science and CS	802	3.1%

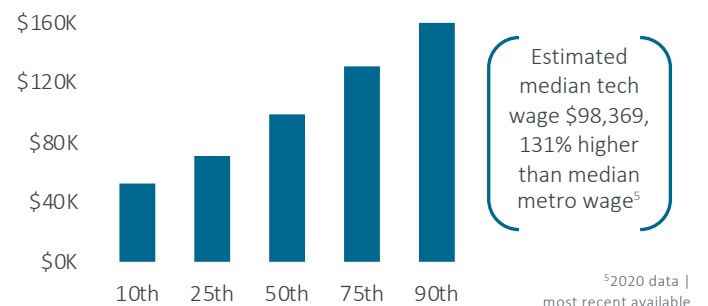
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]





# Indianapolis

Full MSA name: Indianapolis-Carmel-Anderson, IN

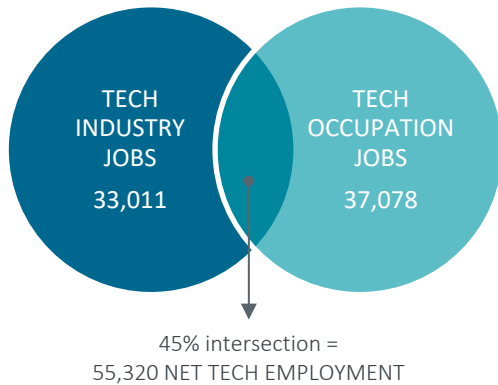


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

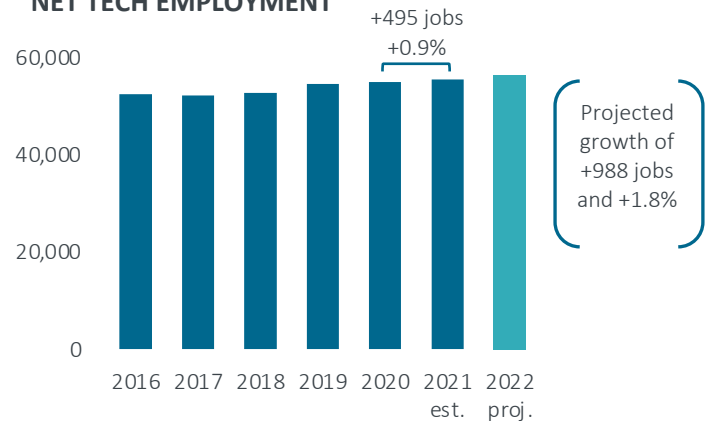
55,320 NET TECH EMPLOYMENT<sup>1</sup>  
 5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$8.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.3% ECONOMIC IMPACT AS A % OF OVERALL  
 2,400 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 24,213 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 23.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

30<sup>th</sup> NET TECH EMPLOYMENT RANK  
 20<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 29<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

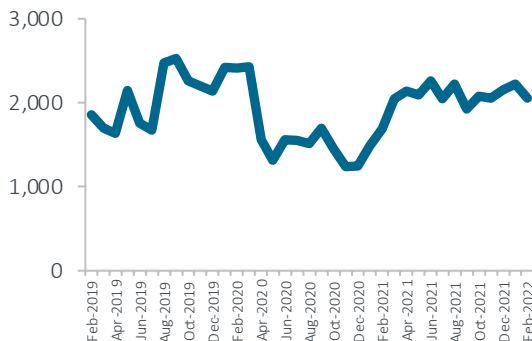


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



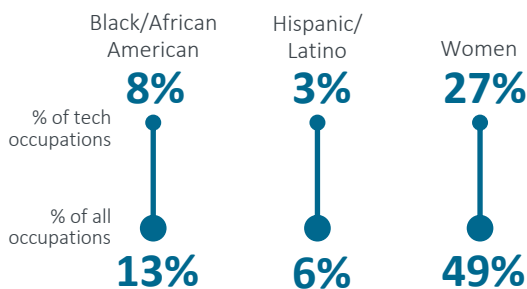
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	13,284	2.9%
IT Support Specialist and Repair Technicians	6,077	1.0%
Cybersecurity and Systems Engineers	5,843	1.6%
Network Engineers, Architects and Support	5,569	1.1%
Emerging Tech, IT Project Mgt. and Other	1,896	2.1%
Database, Data Science and CS	1,518	2.4%

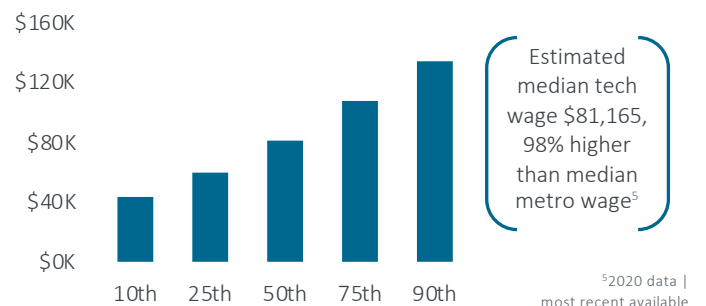
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Kansas City

Full MSA name: Kansas City, MO-KS

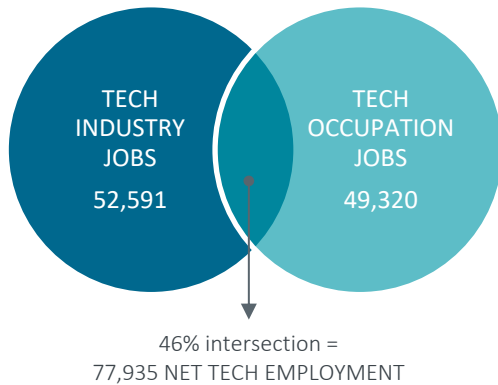


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

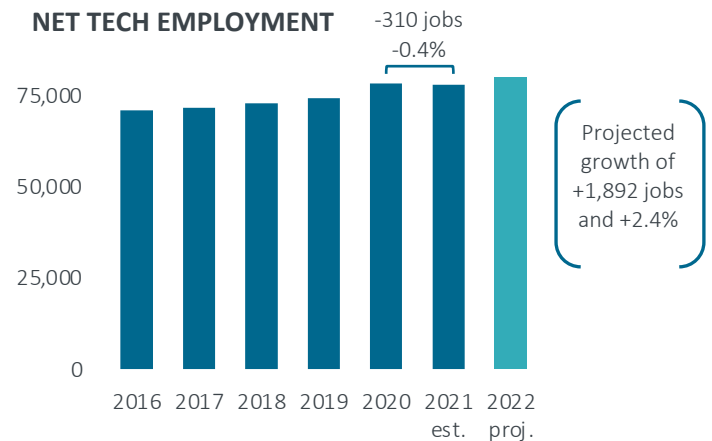
77,935 NET TECH EMPLOYMENT<sup>1</sup>  
 7.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$12.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.3% ECONOMIC IMPACT AS A % OF OVERALL  
 3,804 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 27,027 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

24<sup>th</sup> NET TECH EMPLOYMENT RANK  
 41<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 13<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

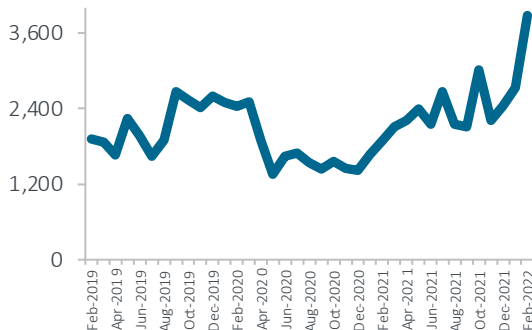


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



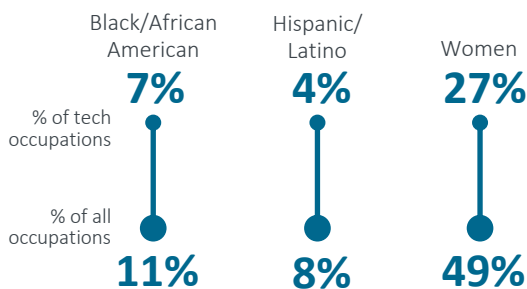
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	18,474	3.0%
Network Engineers, Architects and Support	7,600	0.4%
Cybersecurity and Systems Engineers	7,460	1.2%
IT Support Specialist and Repair Technicians	6,819	1.1%
Emerging Tech, IT Project Mgt. and Other	2,718	2.3%
Database, Data Science and CS	2,040	1.5%

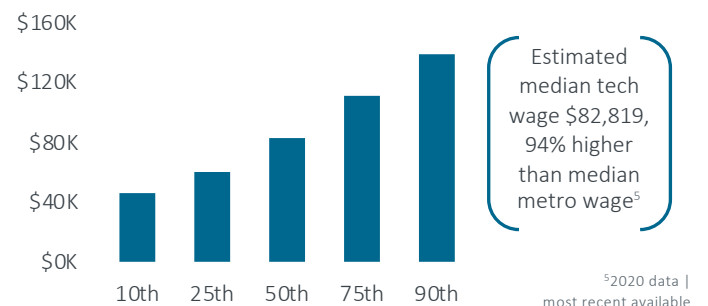
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

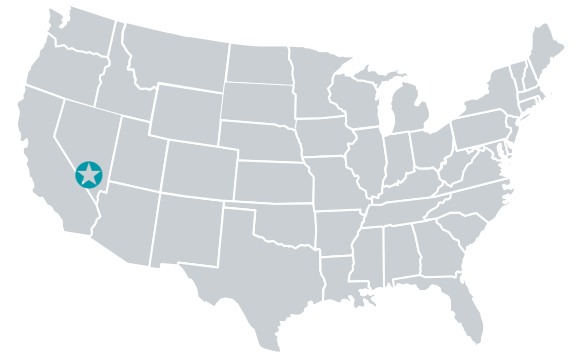
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Las Vegas

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

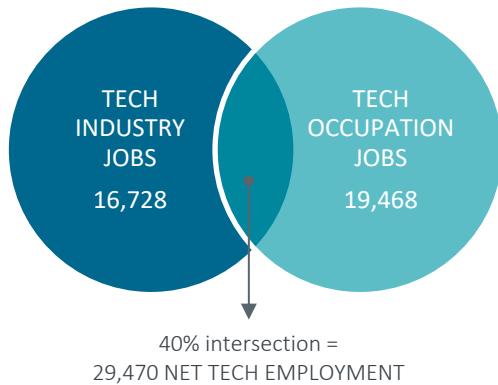


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

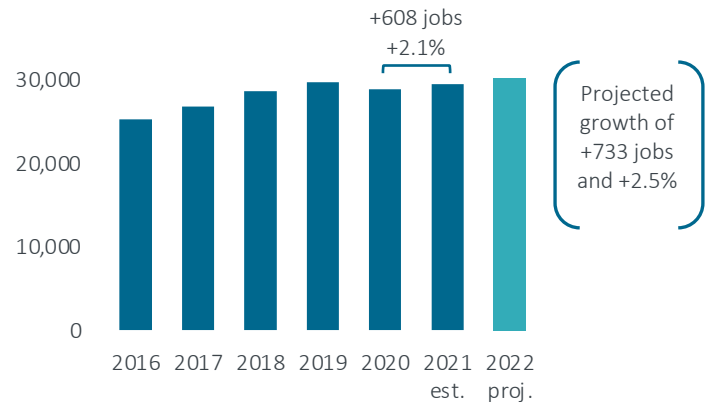
29,470 NET TECH EMPLOYMENT<sup>1</sup>  
 3.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$5.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.7% ECONOMIC IMPACT AS A % OF OVERALL  
 2,970 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 17,169 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 21.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

40<sup>th</sup> NET TECH EMPLOYMENT RANK  
 17<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 39<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

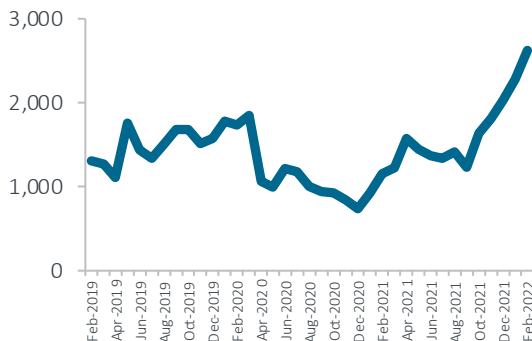


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



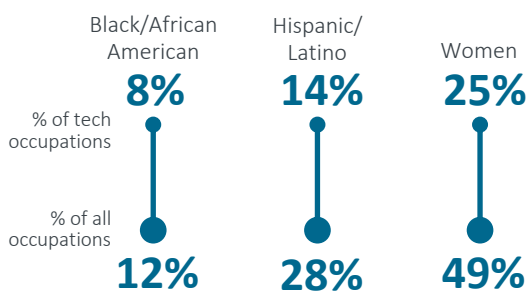
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	5,933	3.9%
IT Support Specialist and Repair Technicians	4,836	0.9%
Network Engineers, Architects and Support	2,703	1.6%
Cybersecurity and Systems Engineers	1,892	3.1%
Emerging Tech, IT Project Mgt. and Other	1,664	2.4%
Database, Data Science and CS	822	2.5%

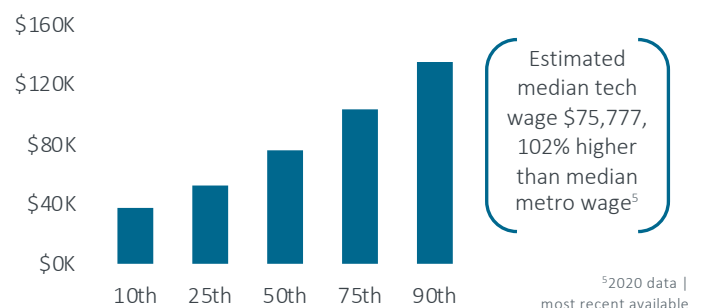
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

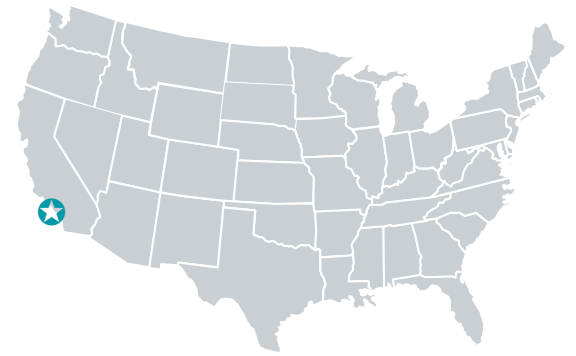
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Los Angeles

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

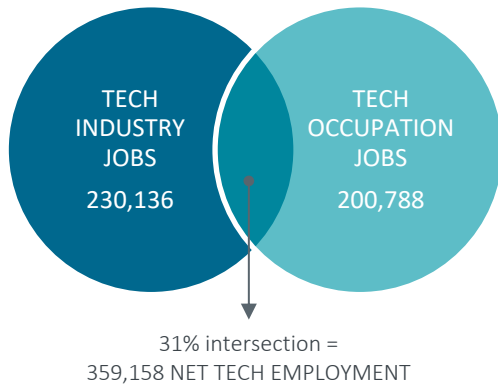


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

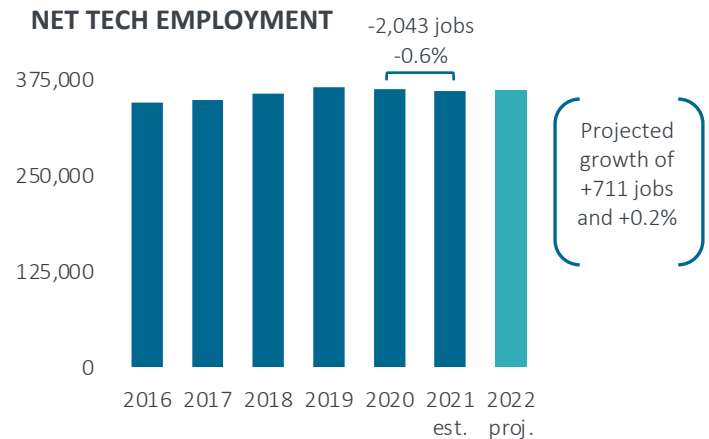
359,158 NET TECH EMPLOYMENT<sup>1</sup>  
 5.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$79.1b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.5% ECONOMIC IMPACT AS A % OF OVERALL  
 14,704 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 146,806 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 25.9% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

3<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 48<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 40<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

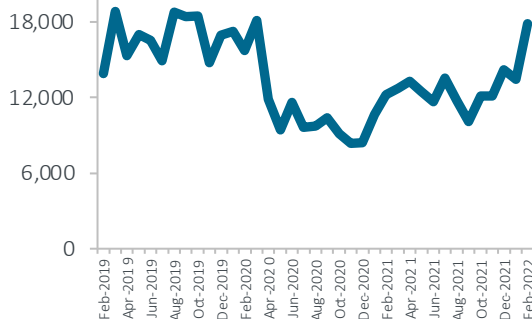


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



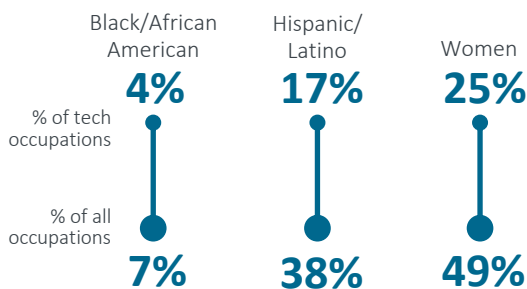
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	77,696	1.8%
IT Support Specialist and Repair Technicians	27,349	-0.2%
Emerging Tech, IT Project Mgt. and Other	21,654	0.4%
Network Engineers, Architects and Support	20,854	-0.1%
Cybersecurity and Systems Engineers	20,814	0.6%
Database, Data Science and CS	7,674	1.2%

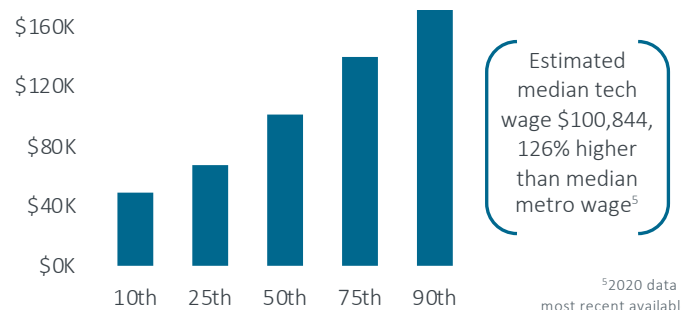
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

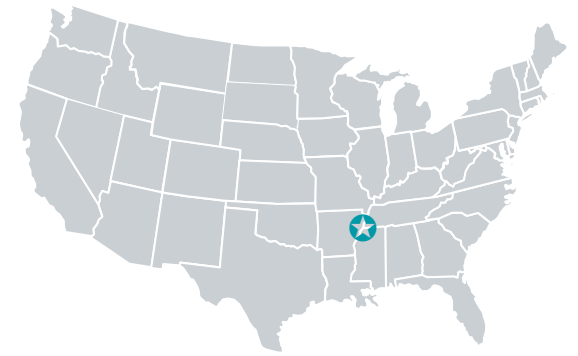
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Memphis

Full MSA name: Memphis, TN-MS-AR

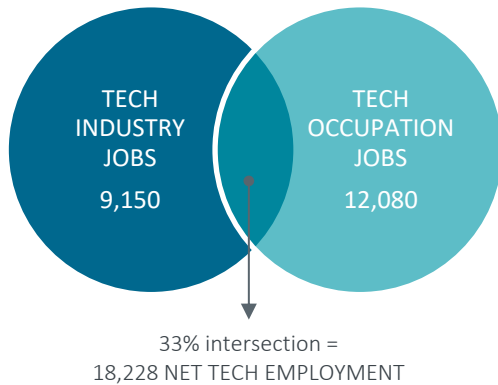


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

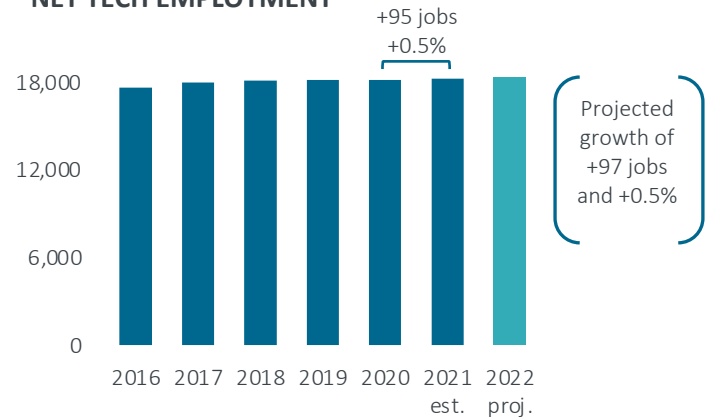
18,228 NET TECH EMPLOYMENT<sup>1</sup>  
 2.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.0% ECONOMIC IMPACT AS A % OF OVERALL  
 1,072 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 10,877 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 25.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

48<sup>th</sup> NET TECH EMPLOYMENT RANK  
 30<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 15<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

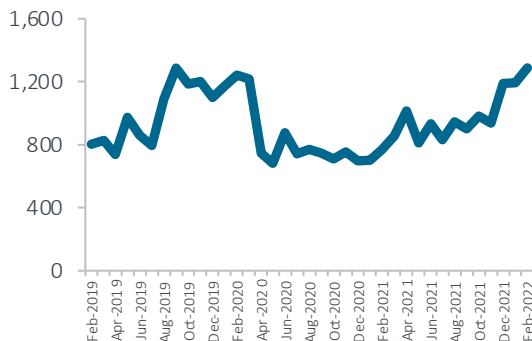


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



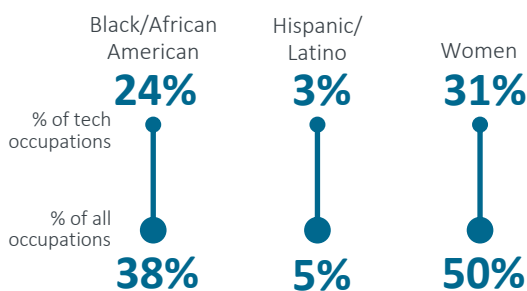
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	3,455	2.3%
IT Support Specialist and Repair Technicians	1,873	-0.1%
Cybersecurity and Systems Engineers	1,714	0.4%
Network Engineers, Architects and Support	1,570	0.4%
Emerging Tech, IT Project Mgt. and Other	1,424	0.9%
Database, Data Science and CS	515	2.7%

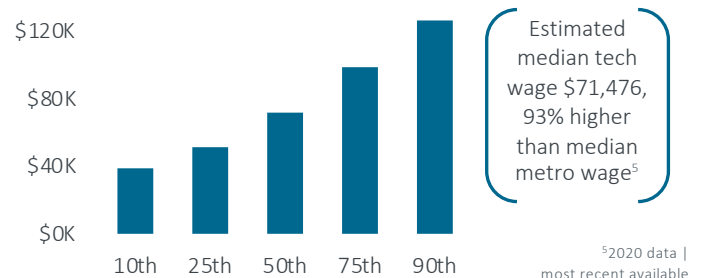
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



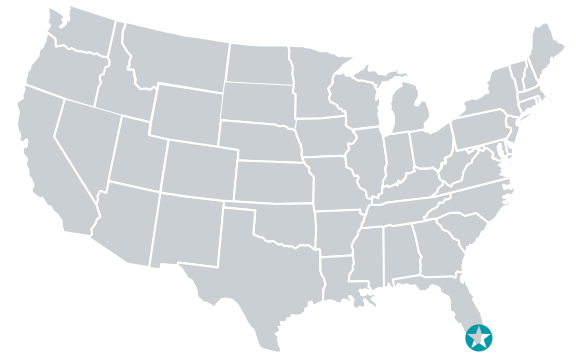
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Miami

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

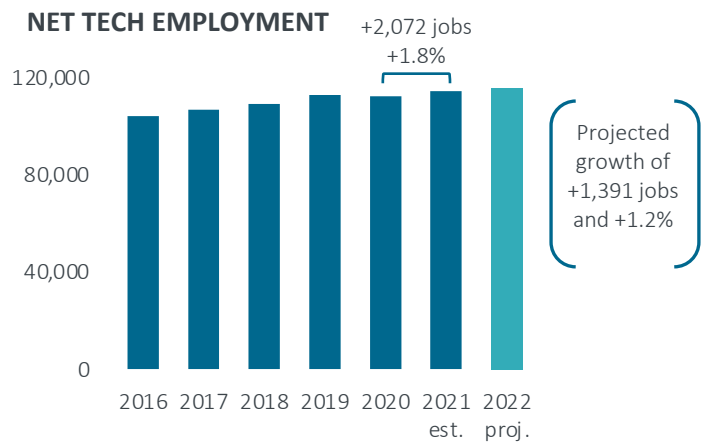
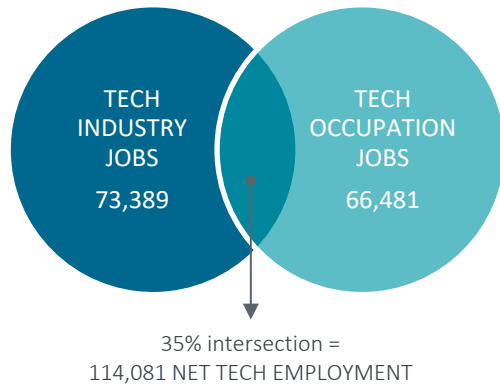


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

114,081 NET TECH EMPLOYMENT<sup>1</sup>  
 4.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$22.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.2% ECONOMIC IMPACT AS A % OF OVERALL  
 8,563 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 50,468 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 20.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

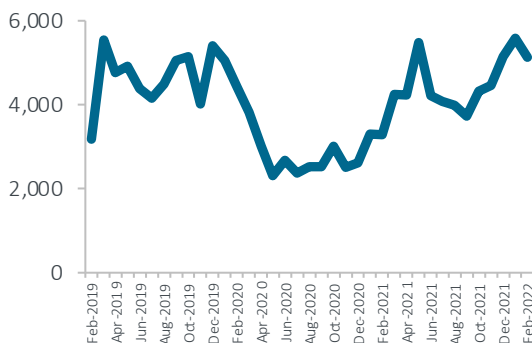
18<sup>th</sup> NET TECH EMPLOYMENT RANK  
 4<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 5<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



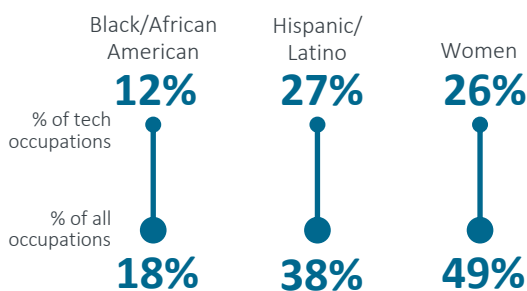
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	22,782	3.4%
IT Support Specialist and Repair Technicians	13,263	0.9%
Network Engineers, Architects and Support	9,129	1.1%
Cybersecurity and Systems Engineers	8,924	2.2%
Database, Data Science and CS	3,083	2.4%
Emerging Tech, IT Project Mgt. and Other	2,660	2.9%

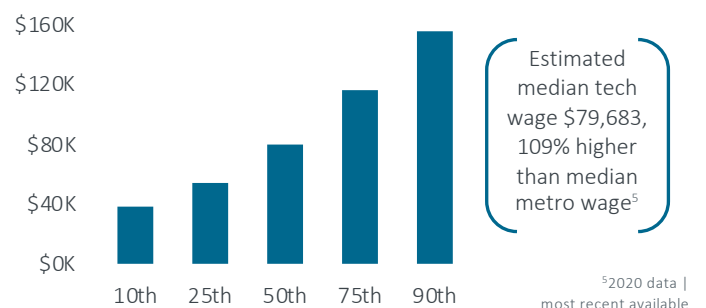
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]



# Milwaukee

Full MSA name: Milwaukee-Waukesha, WI

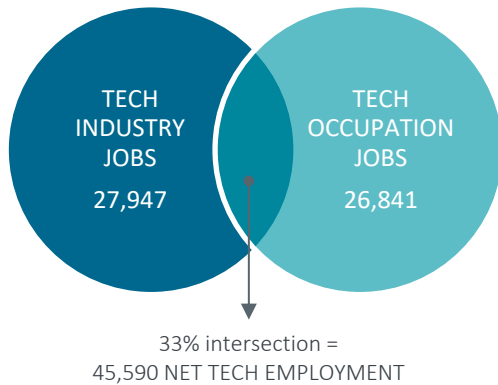


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

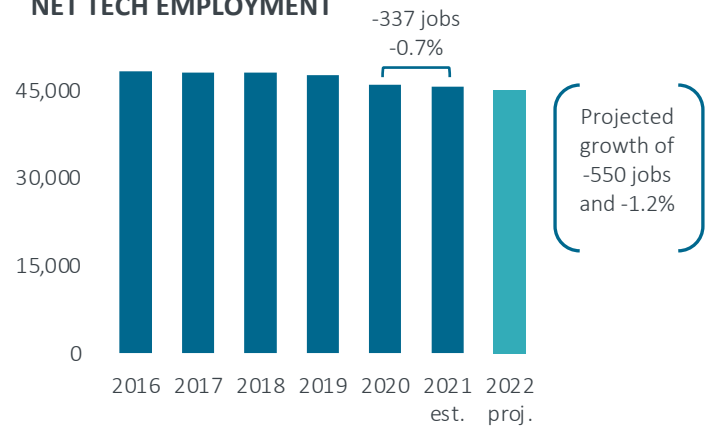
45,590 NET TECH EMPLOYMENT<sup>1</sup>  
 5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$8.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.4% ECONOMIC IMPACT AS A % OF OVERALL  
 1,602 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 22,447 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 27.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

36<sup>th</sup> NET TECH EMPLOYMENT RANK  
 42<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 19<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

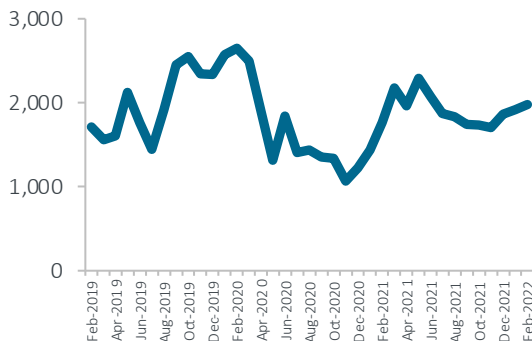


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



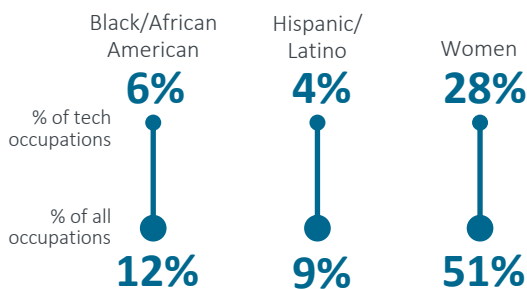
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	9,950	0.4%
Cybersecurity and Systems Engineers	4,840	-0.5%
Network Engineers, Architects and Support	4,257	-1.0%
IT Support Specialist and Repair Technicians	3,469	-0.8%
Emerging Tech, IT Project Mgt. and Other	916	-0.1%
Database, Data Science and CS	904	-0.1%

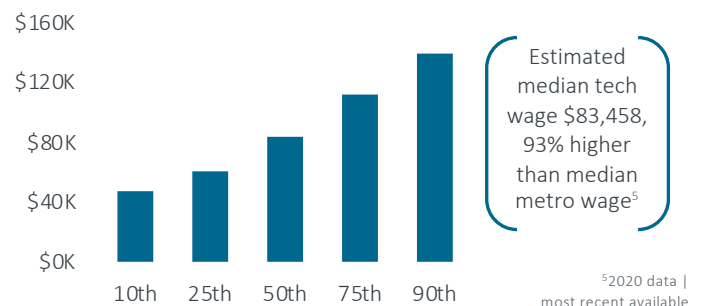
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

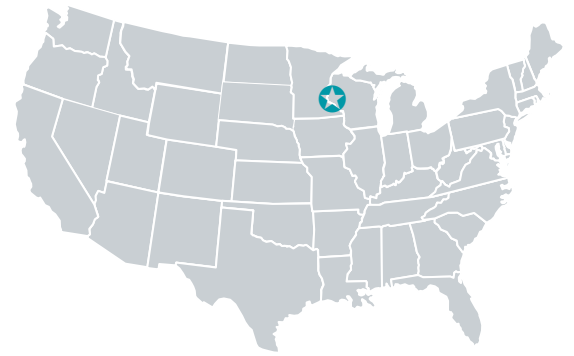
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Minneapolis

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

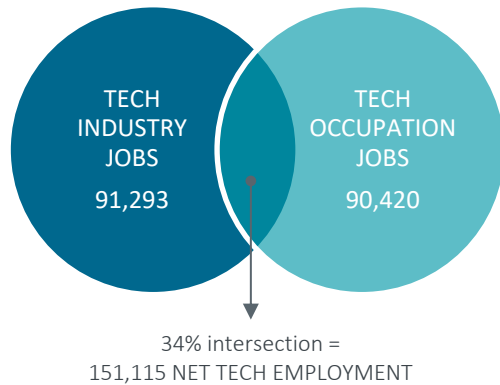


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

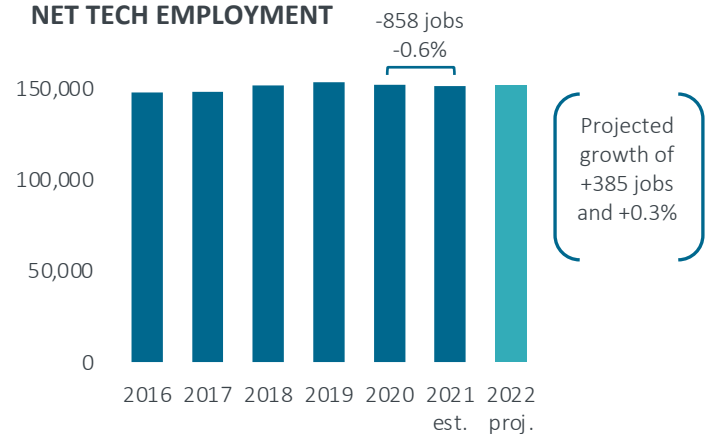
151,115 NET TECH EMPLOYMENT<sup>1</sup>  
 7.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$26.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.8% ECONOMIC IMPACT AS A % OF OVERALL  
 4,488 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 63,894 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

14<sup>th</sup> NET TECH EMPLOYMENT RANK  
 45<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 24<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

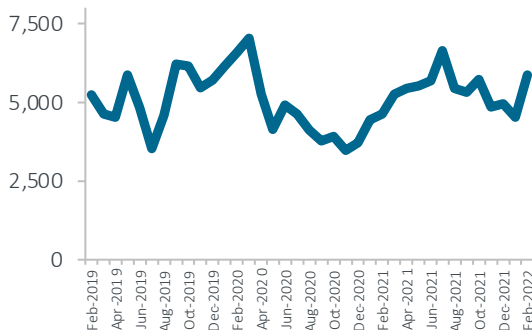


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



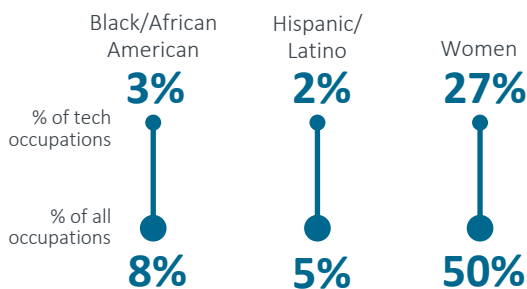
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	33,547	1.7%
Cybersecurity and Systems Engineers	17,640	0.5%
IT Support Specialist and Repair Technicians	11,452	0.0%
Network Engineers, Architects and Support	10,896	-0.1%
Emerging Tech, IT Project Mgt. and Other	3,946	0.7%
Database, Data Science and CS	3,469	1.3%

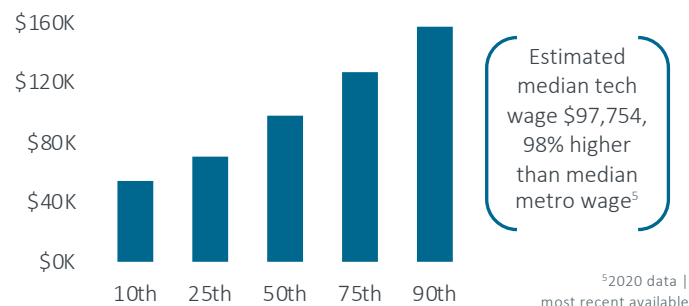
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]

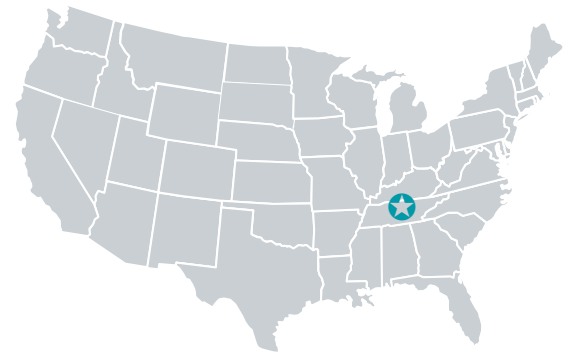


<sup>5</sup>2020 data | most recent available



# Nashville

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

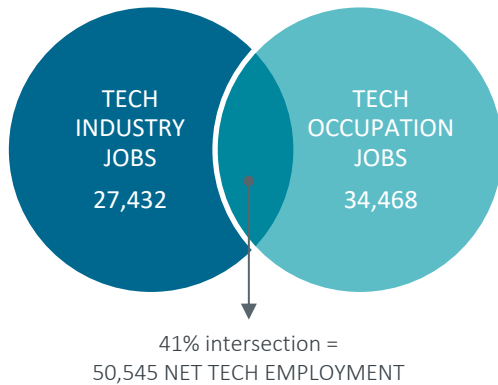


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

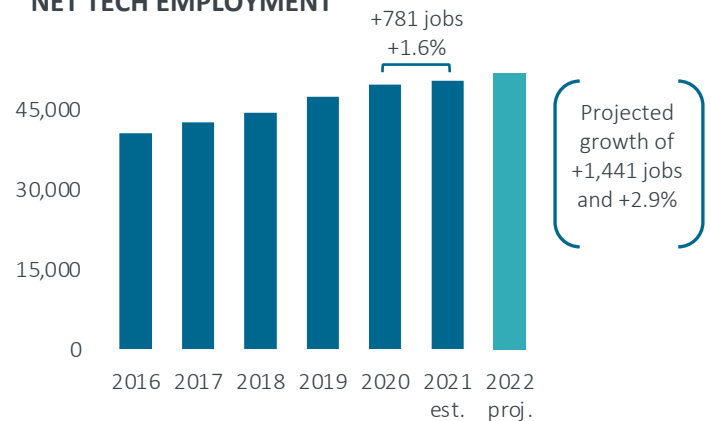
50,545 NET TECH EMPLOYMENT<sup>1</sup>  
 4.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$7.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.8% ECONOMIC IMPACT AS A % OF OVERALL  
 3,967 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 26,366 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

34<sup>th</sup> NET TECH EMPLOYMENT RANK  
 14<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 1<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

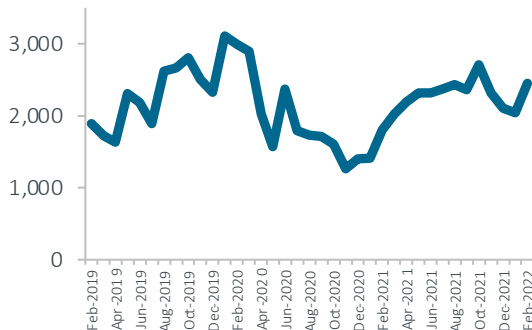


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



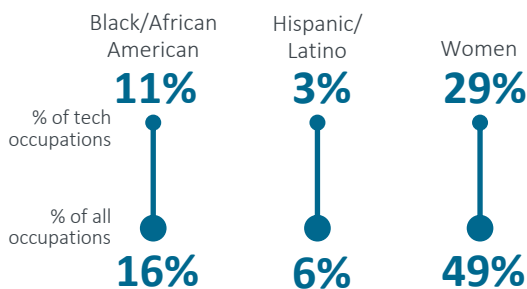
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	9,939	4.8%
Cybersecurity and Systems Engineers	5,912	2.6%
IT Support Specialist and Repair Technicians	5,003	2.4%
Network Engineers, Architects and Support	4,466	2.1%
Emerging Tech, IT Project Mgt. and Other	3,106	2.3%
Database, Data Science and CS	2,121	3.3%

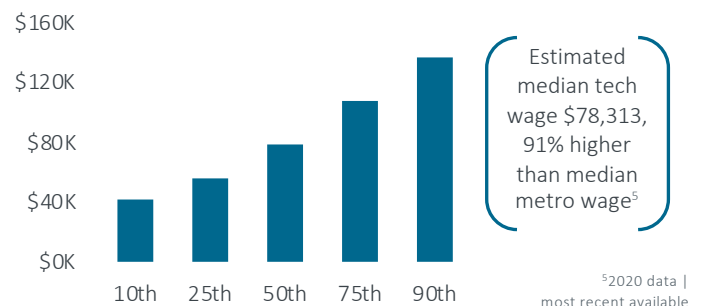
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

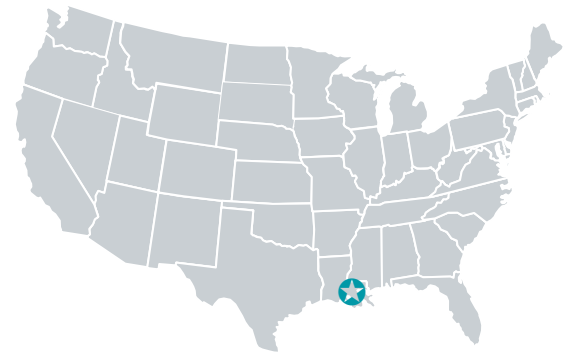
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# New Orleans

Full MSA name: New Orleans-Metairie, LA

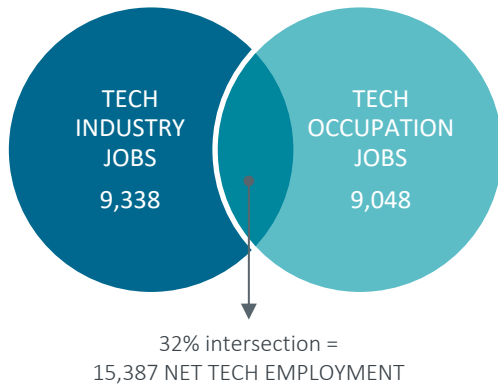


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

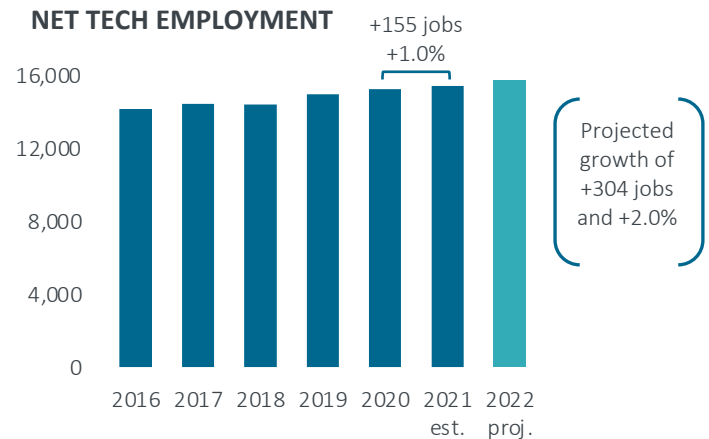
15,387 NET TECH EMPLOYMENT<sup>1</sup>  
 2.8% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$1.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 2.7% ECONOMIC IMPACT AS A % OF OVERALL  
 1,724 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 7,275 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 19.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

51<sup>st</sup> NET TECH EMPLOYMENT RANK  
 29<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 8<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

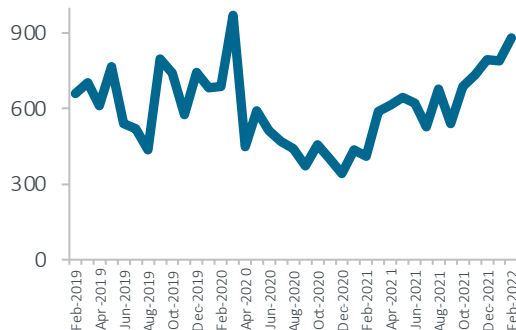


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



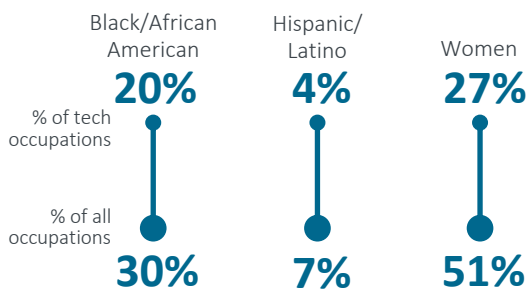
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	2,039	4.1%
Emerging Tech, IT Project Mgt. and Other	1,904	1.0%
Cybersecurity and Systems Engineers	1,522	1.5%
Network Engineers, Architects and Support	1,200	0.9%
IT Support Specialist and Repair Technicians	1,134	1.3%
Database, Data Science and CS	353	2.8%

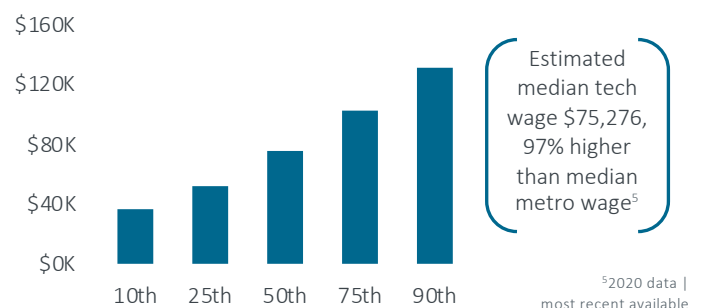
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

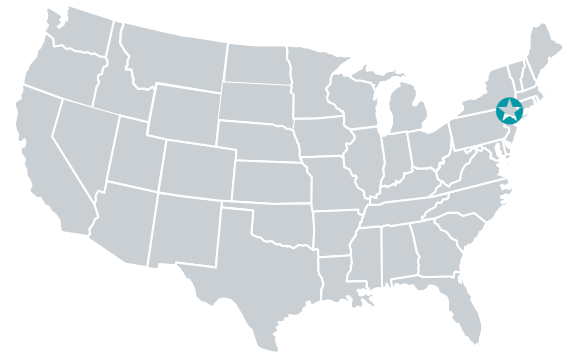
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# New York City

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

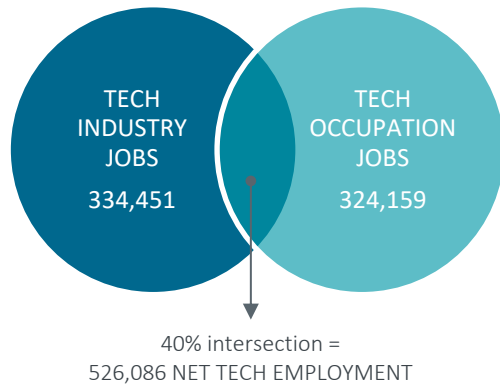


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

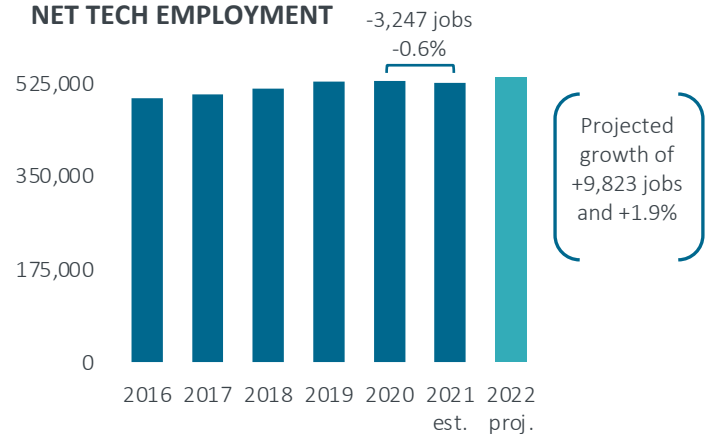
526,086 NET TECH EMPLOYMENT<sup>1</sup>  
 5.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$156.1b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.2% ECONOMIC IMPACT AS A % OF OVERALL  
 22,692 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 223,988 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 31.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

1<sup>st</sup> NET TECH EMPLOYMENT RANK  
 51<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 46<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

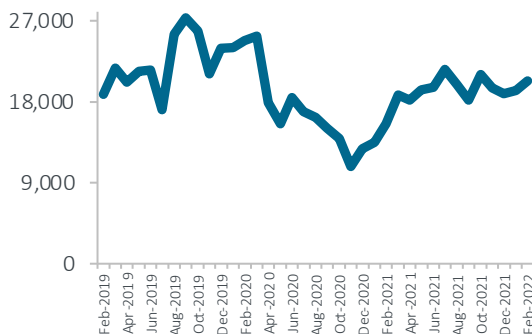


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



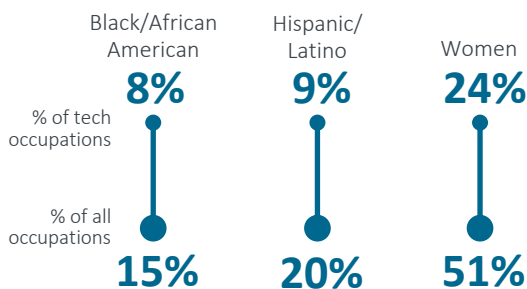
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	127,440	2.8%
Cybersecurity and Systems Engineers	46,398	1.2%
Network Engineers, Architects and Support	44,121	0.5%
IT Support Specialist and Repair Technicians	42,760	0.8%
Database, Data Science and CS	14,804	2.1%
Emerging Tech, IT Project Mgt. and Other	12,125	1.3%

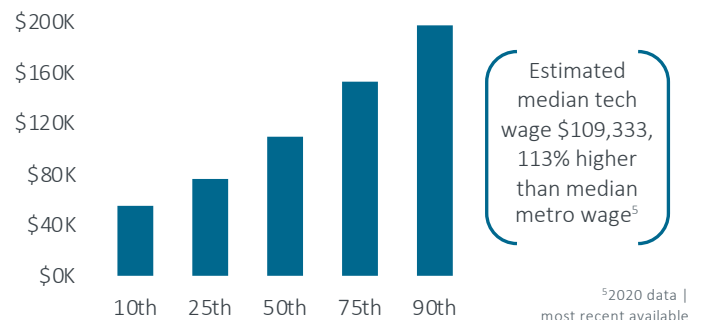
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



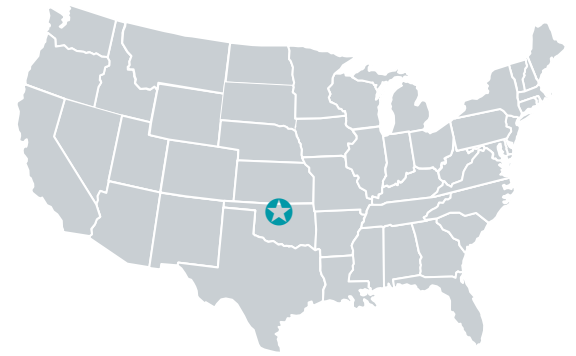
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Oklahoma City

Full MSA name: Oklahoma City, OK

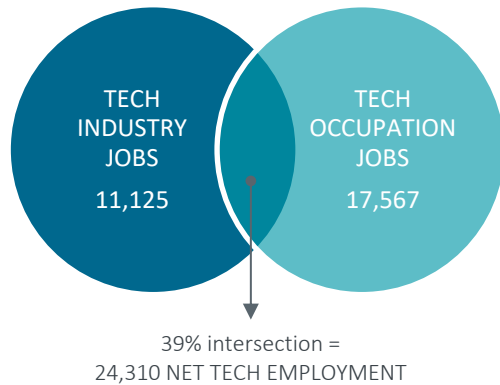


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

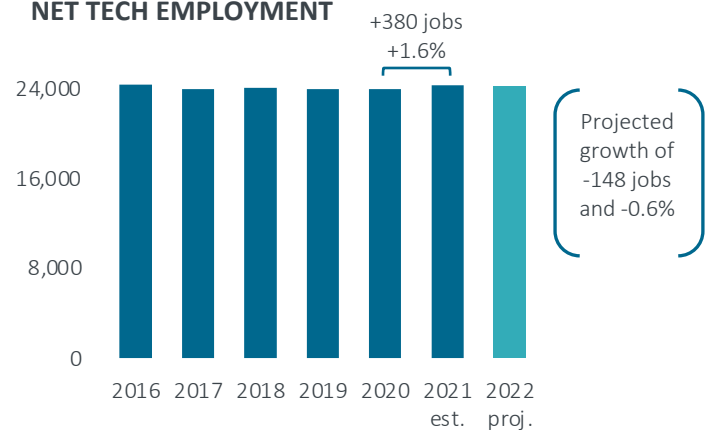
24,310 NET TECH EMPLOYMENT<sup>1</sup>  
 3.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 3.1% ECONOMIC IMPACT AS A % OF OVERALL  
 1,547 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 11,857 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 16.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

43<sup>rd</sup> NET TECH EMPLOYMENT RANK  
 22<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 26<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



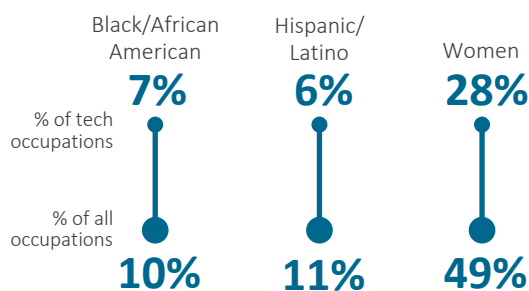
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	5,119	1.6%
IT Support Specialist and Repair Technicians	3,044	-0.9%
Network Engineers, Architects and Support	2,337	-1.2%
Cybersecurity and Systems Engineers	2,157	-0.2%
Database, Data Science and CS	1,592	0.3%
Emerging Tech, IT Project Mgt. and Other	1,435	1.3%

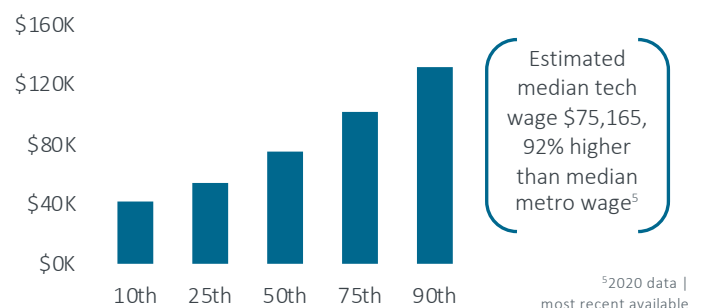
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]



# Omaha

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

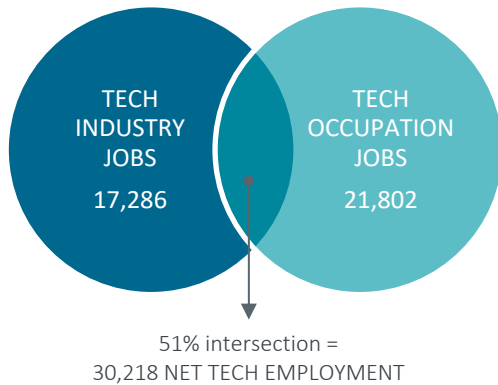


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

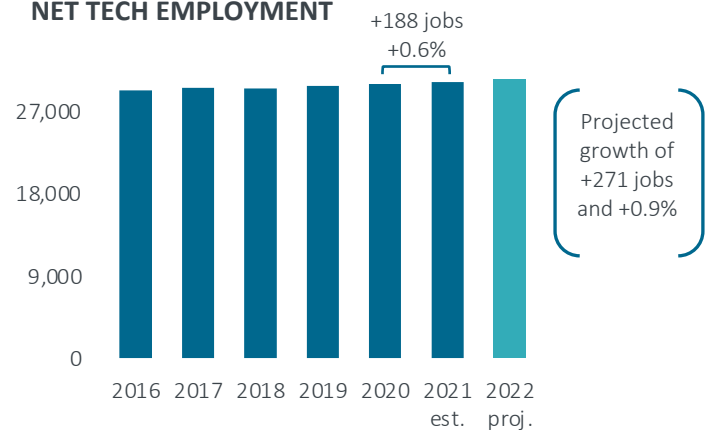
30,218 NET TECH EMPLOYMENT<sup>1</sup>  
 6.1% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$4.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 6.6% ECONOMIC IMPACT AS A % OF OVERALL  
 1,174 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 12,456 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 19.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

39<sup>th</sup> NET TECH EMPLOYMENT RANK  
 27<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 18<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

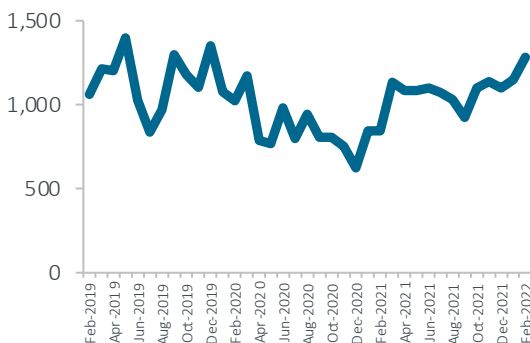


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



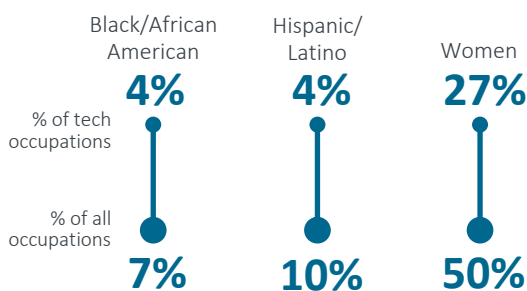
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	7,411	2.5%
Cybersecurity and Systems Engineers	3,184	0.6%
Network Engineers, Architects and Support	3,110	-0.4%
IT Support Specialist and Repair Technicians	3,069	-0.4%
Emerging Tech, IT Project Mgt. and Other	2,390	0.2%
Database, Data Science and CS	1,079	0.8%

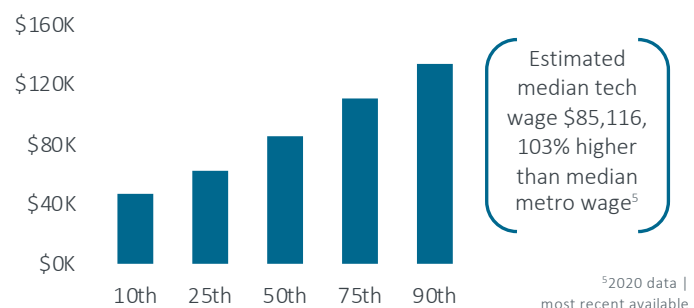
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

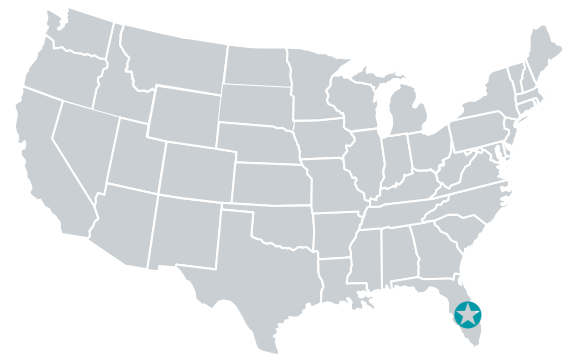
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Orlando

Full MSA name: Orlando-Kissimmee-Sanford, FL

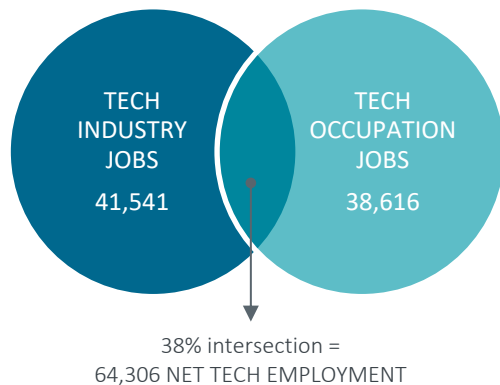


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

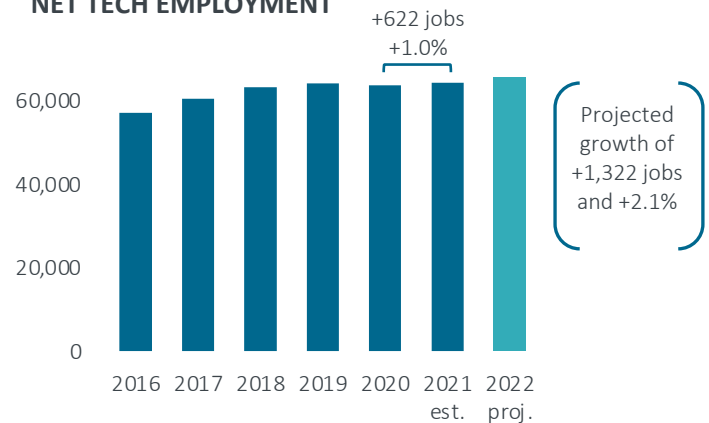
64,306 NET TECH EMPLOYMENT<sup>1</sup>  
 5.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$11.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.2% ECONOMIC IMPACT AS A % OF OVERALL  
 3,387 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 24,657 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 21.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

27<sup>th</sup> NET TECH EMPLOYMENT RANK  
 16<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 10<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



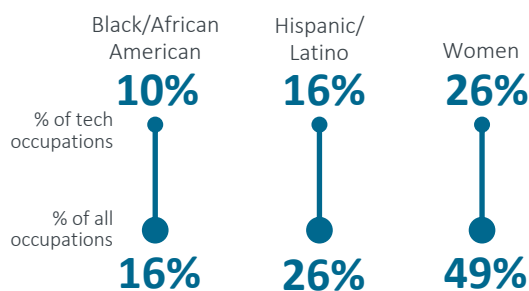
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	13,036	4.0%
Cybersecurity and Systems Engineers	6,660	2.5%
IT Support Specialist and Repair Technicians	6,601	1.6%
Network Engineers, Architects and Support	5,687	1.6%
Emerging Tech, IT Project Mgt. and Other	1,455	3.5%
Database, Data Science and CS	1,419	3.3%

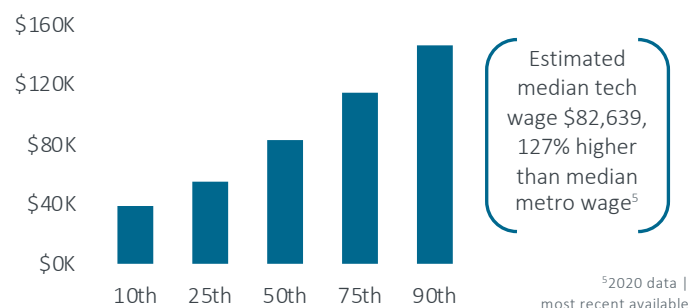
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

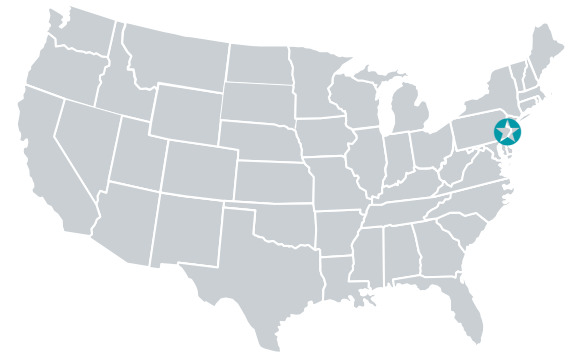
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Philadelphia

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

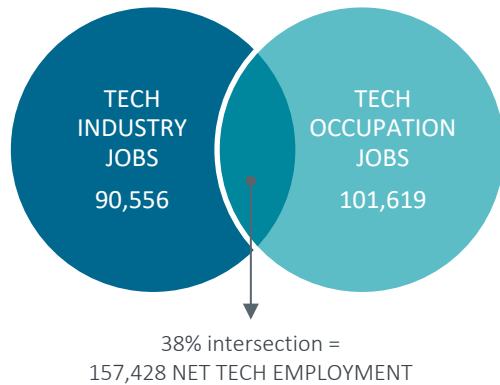


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

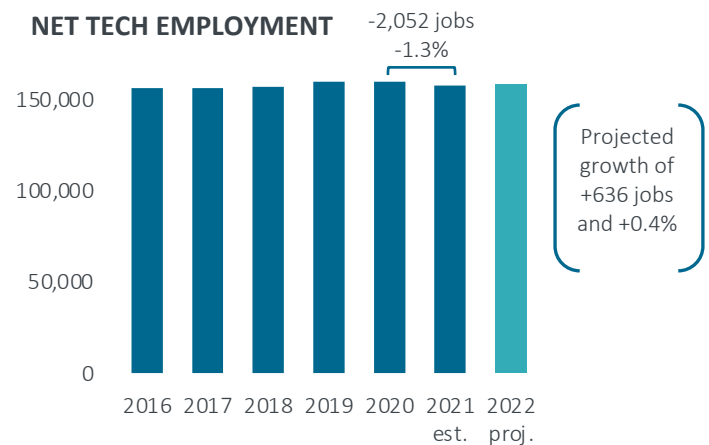
157,428 NET TECH EMPLOYMENT<sup>1</sup>  
 5.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$33.1b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 7.9% ECONOMIC IMPACT AS A % OF OVERALL  
 7,068 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 71,796 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

12<sup>th</sup> NET TECH EMPLOYMENT RANK  
 49<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 42<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

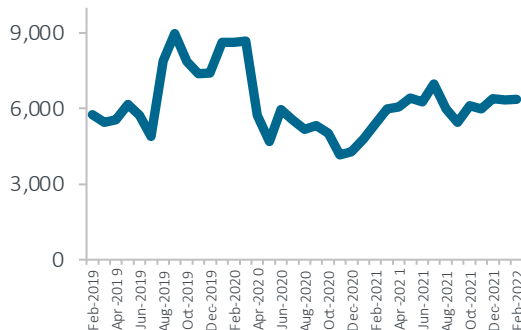


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



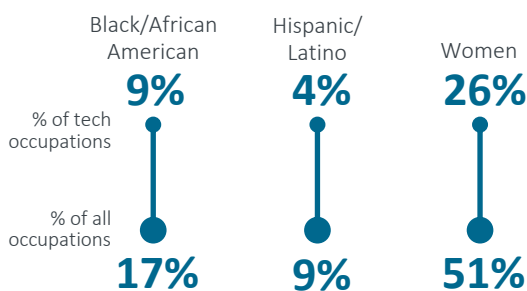
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	35,346	1.7%
IT Support Specialist and Repair Technicians	13,937	-0.3%
Network Engineers, Architects and Support	13,830	0.0%
Cybersecurity and Systems Engineers	13,568	0.4%
Emerging Tech, IT Project Mgt. and Other	9,317	0.6%
Database, Data Science and CS	4,948	1.2%

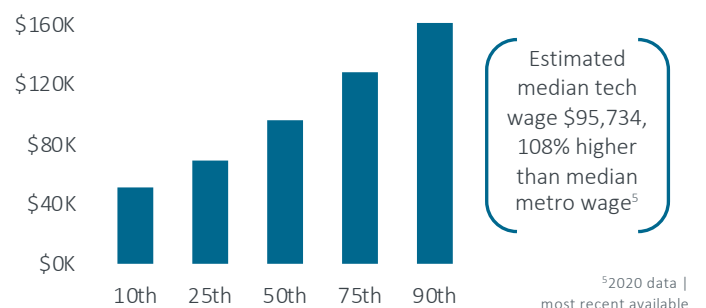
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



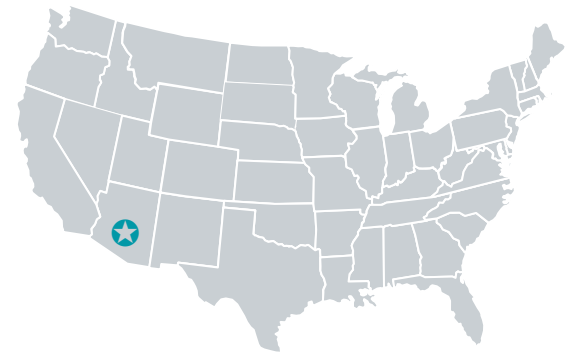
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Phoenix

Full MSA name: Phoenix-Mesa-Chandler, AZ

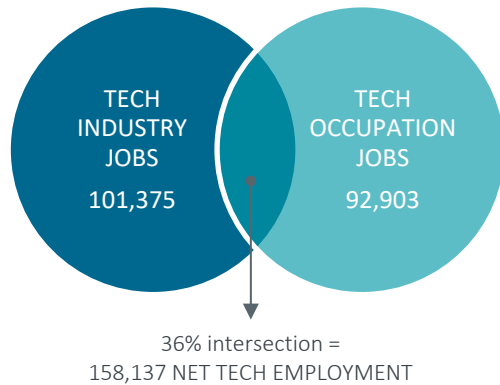


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

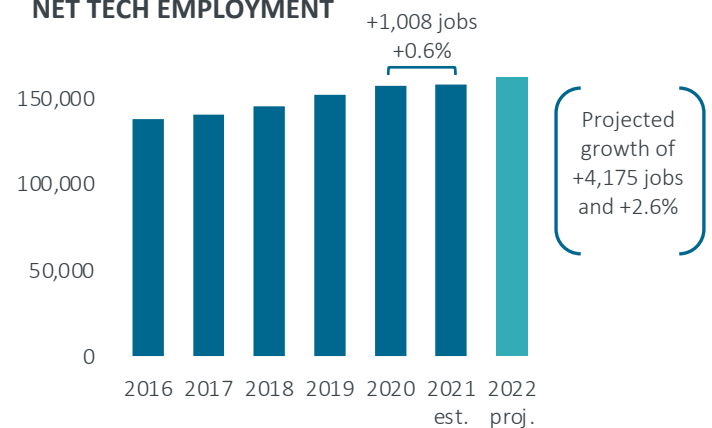
158,137 NET TECH EMPLOYMENT<sup>1</sup>  
 7.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$25.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.3% ECONOMIC IMPACT AS A % OF OVERALL  
 7,398 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 78,889 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

11<sup>th</sup> NET TECH EMPLOYMENT RANK  
 10<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 14<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

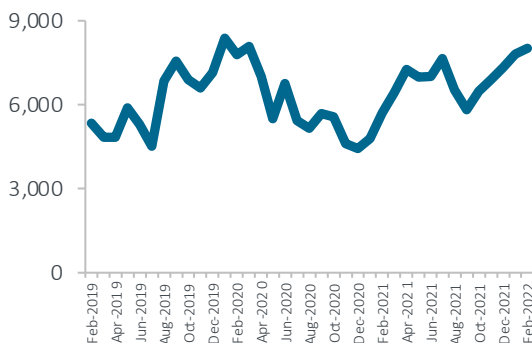


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



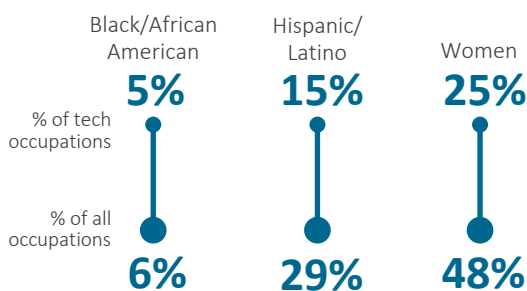
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	32,395	4.6%
IT Support Specialist and Repair Technicians	16,473	2.3%
Cybersecurity and Systems Engineers	13,625	3.3%
Network Engineers, Architects and Support	12,589	2.3%
Emerging Tech, IT Project Mgt. and Other	4,223	3.7%
Database, Data Science and CS	3,646	4.3%

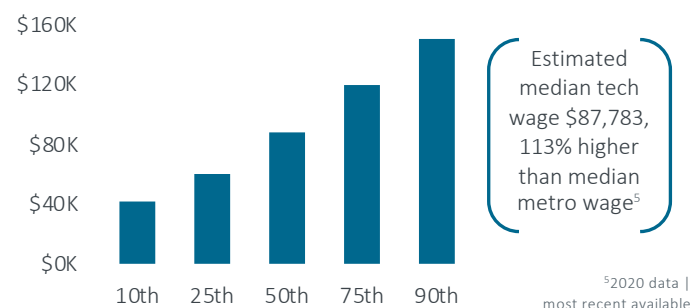
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

## TECH OCCUPATION WAGES [by percentile]

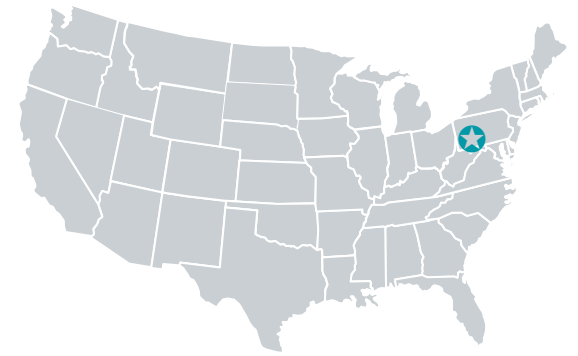


<sup>5</sup>2020 data | most recent available



# Pittsburgh

Full MSA name: Pittsburgh, PA

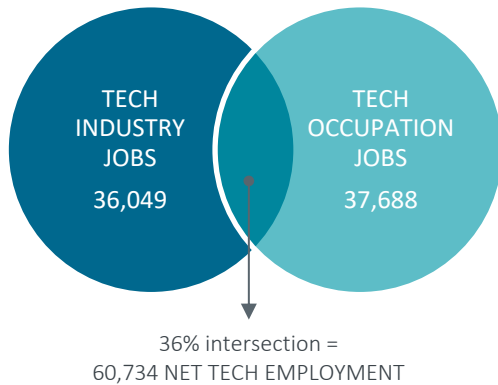


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

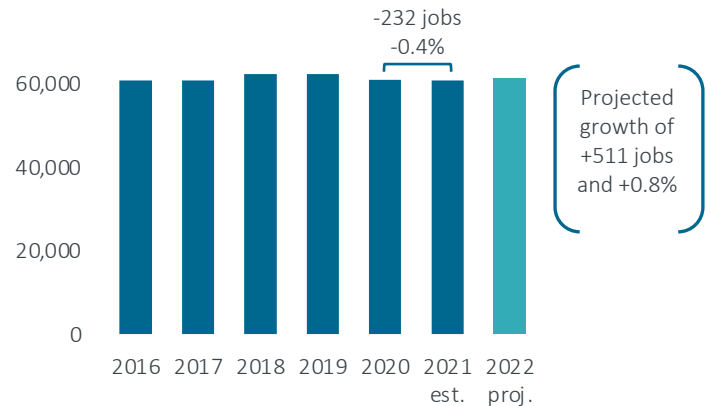
60,734 NET TECH EMPLOYMENT<sup>1</sup>  
 5.5% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$12.2b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 8.5% ECONOMIC IMPACT AS A % OF OVERALL  
 1,816 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 27,581 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

29<sup>th</sup> NET TECH EMPLOYMENT RANK  
 37<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 41<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

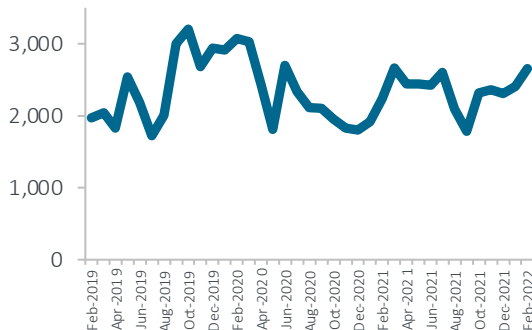


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



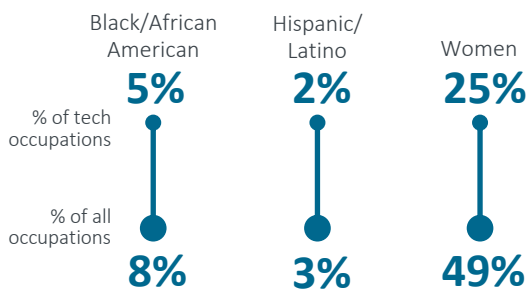
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	11,719	2.4%
Cybersecurity and Systems Engineers	5,655	0.8%
IT Support Specialist and Repair Technicians	5,485	-0.1%
Network Engineers, Architects and Support	5,212	0.0%
Emerging Tech, IT Project Mgt. and Other	3,613	1.0%
Database, Data Science and CS	1,959	1.5%

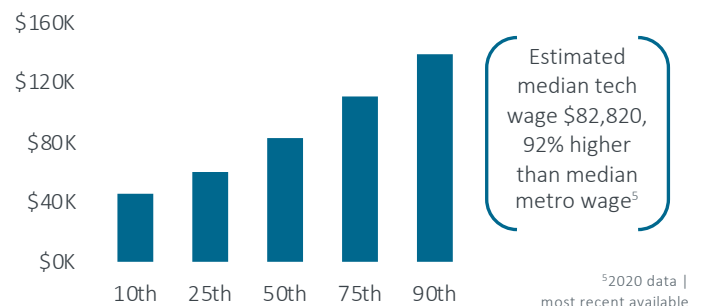
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

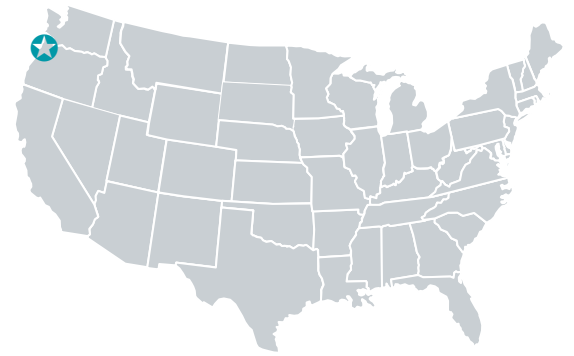
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Portland

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

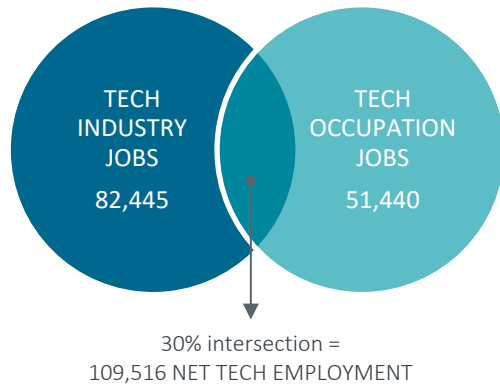


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

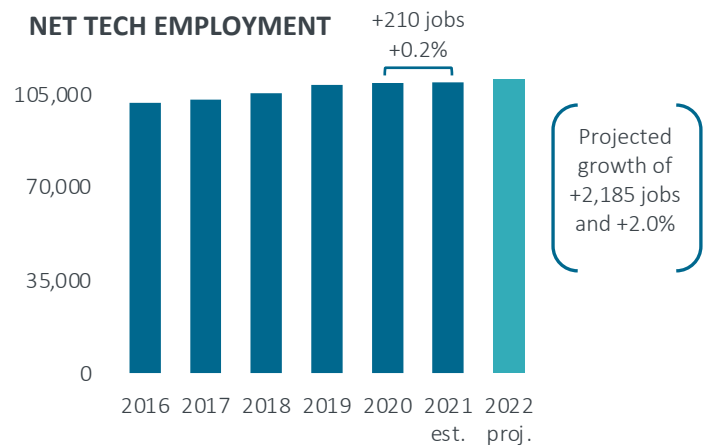
109,516 NET TECH EMPLOYMENT<sup>1</sup>  
 8.9% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$23.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 14.6% ECONOMIC IMPACT AS A % OF OVERALL  
 5,606 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 35,708 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 27.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

19<sup>th</sup> NET TECH EMPLOYMENT RANK  
 26<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 27<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

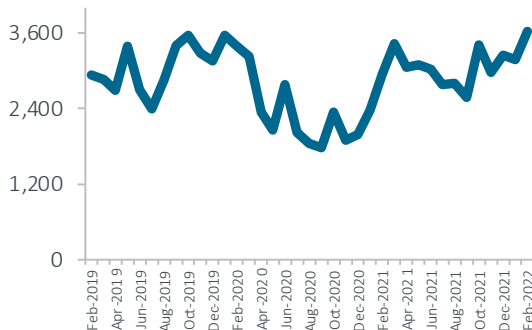


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



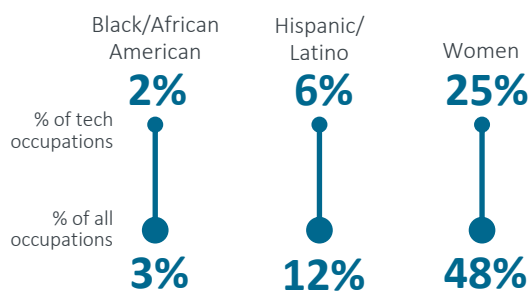
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	20,136	3.2%
IT Support Specialist and Repair Technicians	6,838	1.9%
Cybersecurity and Systems Engineers	6,407	2.1%
Network Engineers, Architects and Support	6,065	1.4%
Emerging Tech, IT Project Mgt. and Other	3,469	2.2%
Database, Data Science and CS	2,221	3.0%

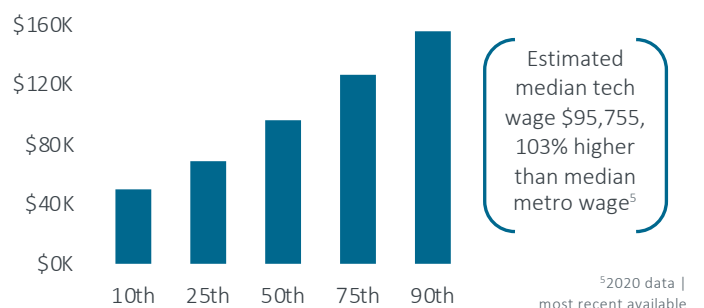
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



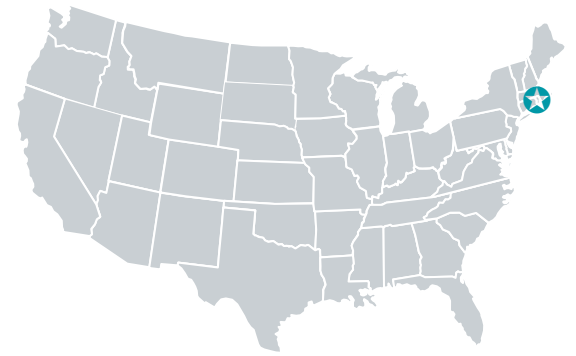
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Providence

Full MSA name: Providence-Warwick, RI-MA

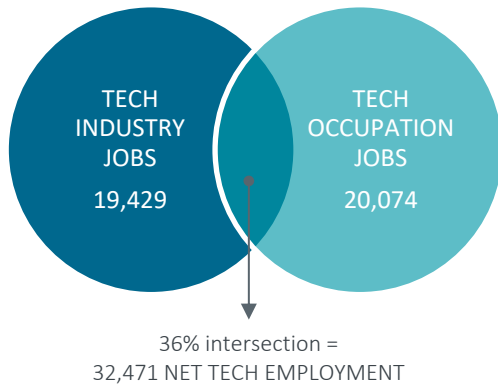


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

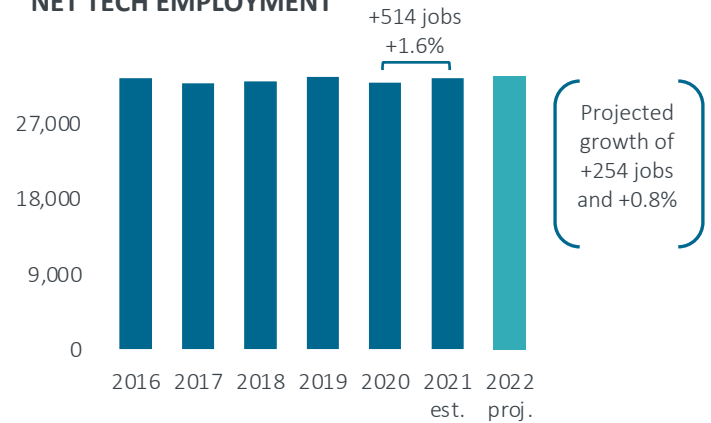
32,471 NET TECH EMPLOYMENT<sup>1</sup>  
 4.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$4.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.7% ECONOMIC IMPACT AS A % OF OVERALL  
 2,092 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 12,192 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.2% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

38<sup>th</sup> NET TECH EMPLOYMENT RANK  
 19<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 32<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

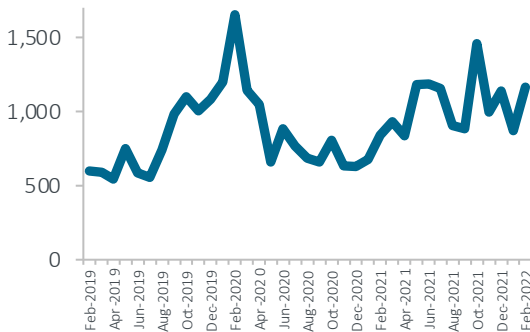


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



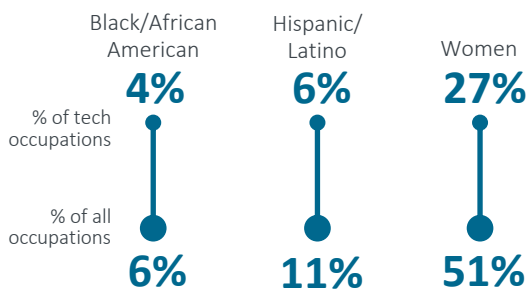
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	5,855	2.0%
Network Engineers, Architects and Support	3,152	0.0%
Cybersecurity and Systems Engineers	2,967	1.1%
IT Support Specialist and Repair Technicians	2,879	0.6%
Emerging Tech, IT Project Mgt. and Other	1,654	1.2%
Database, Data Science and CS	1,217	1.6%

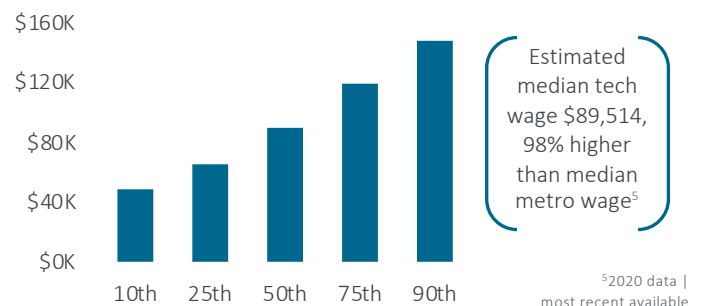
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

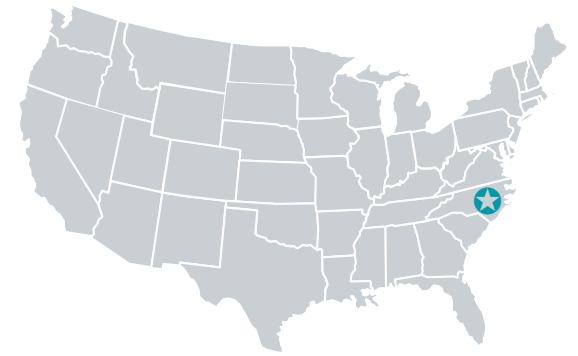
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Raleigh

Full MSA name: Raleigh-Cary, NC

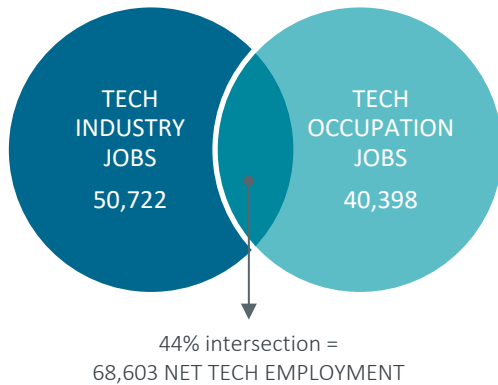


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

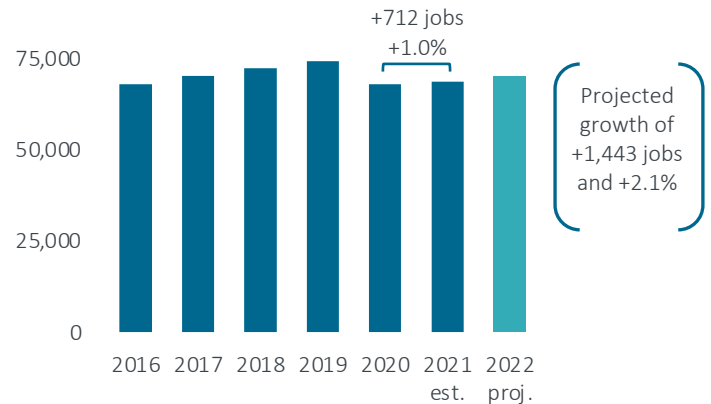
68,603 NET TECH EMPLOYMENT<sup>1</sup>  
 10.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$15.9b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 17.9% ECONOMIC IMPACT AS A % OF OVERALL  
 3,994 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 42,070 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

26<sup>th</sup> NET TECH EMPLOYMENT RANK  
 15<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 33<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

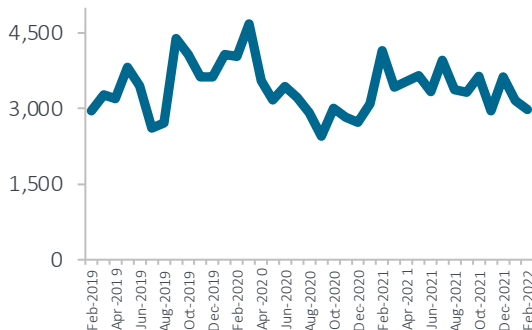


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



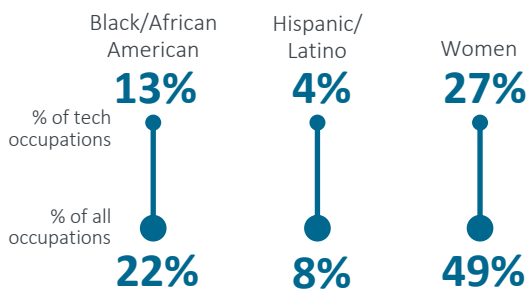
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	16,545	3.7%
Cybersecurity and Systems Engineers	6,983	2.0%
IT Support Specialist and Repair Technicians	5,362	2.1%
Network Engineers, Architects and Support	5,204	1.7%
Database, Data Science and CS	1,410	3.6%
Emerging Tech, IT Project Mgt. and Other	1,141	4.1%

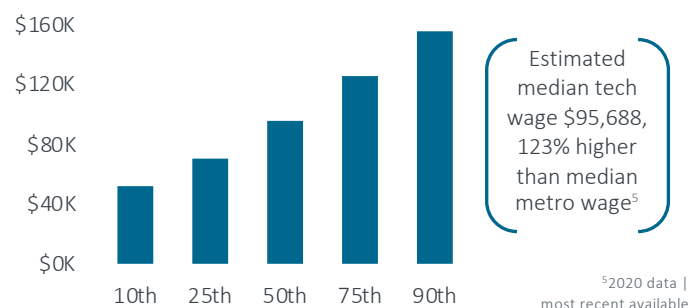
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

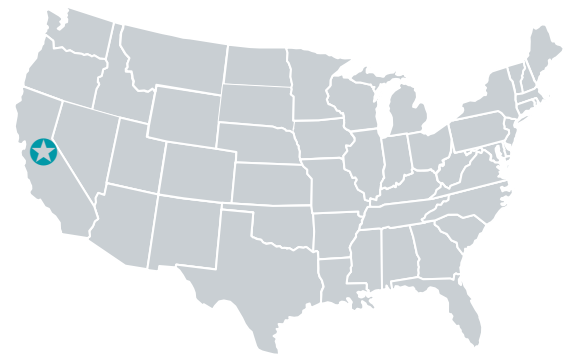
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Sacramento

Full MSA name: Sacramento-Roseville-Folsom, CA

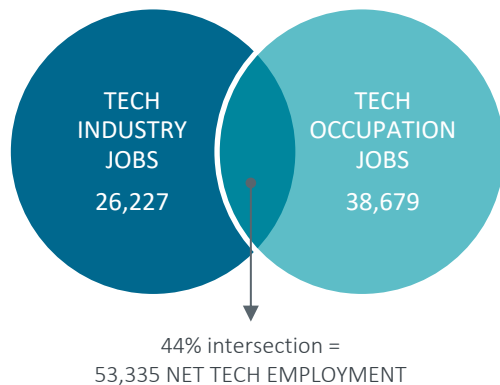


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

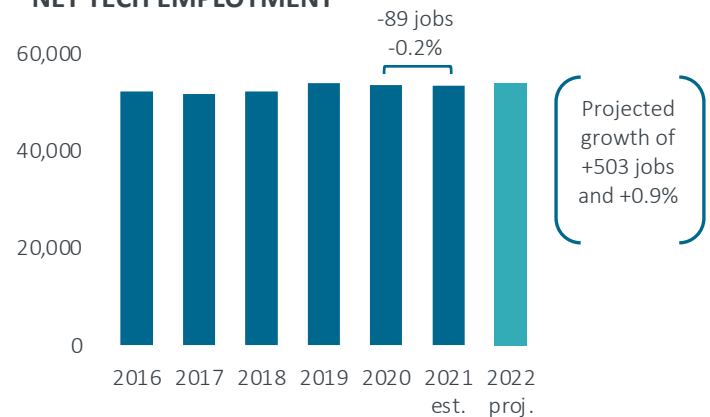
53,335 NET TECH EMPLOYMENT<sup>1</sup>  
 5.0% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$5.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 4.1% ECONOMIC IMPACT AS A % OF OVERALL  
 1,861 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 22,288 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 22.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

31<sup>st</sup> NET TECH EMPLOYMENT RANK  
 33<sup>rd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 38<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

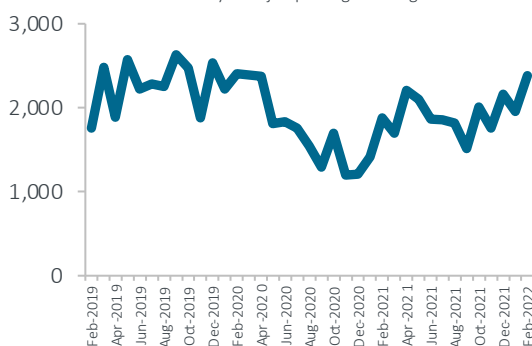


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



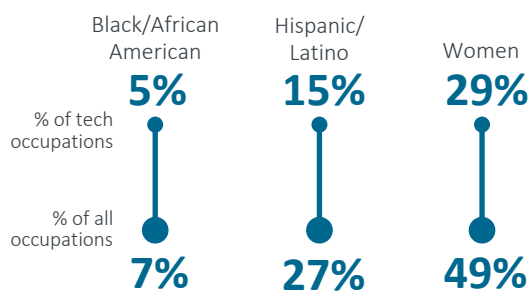
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
IT Support Specialist and Repair Technicians	12,666	0.4%
Software, Programmers, Web and QA	9,692	2.5%
Emerging Tech, IT Project Mgt. and Other	3,760	1.3%
Cybersecurity and Systems Engineers	3,419	1.4%
Network Engineers, Architects and Support	2,929	1.1%
Database, Data Science and CS	2,100	2.3%

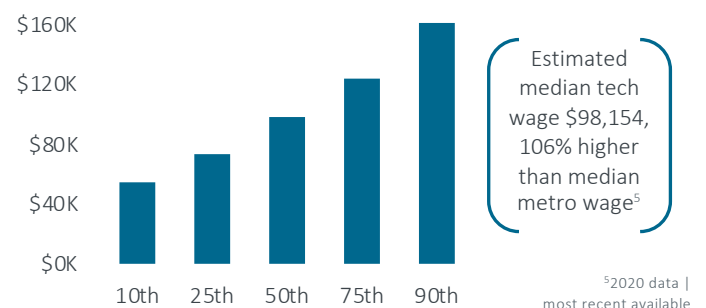
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



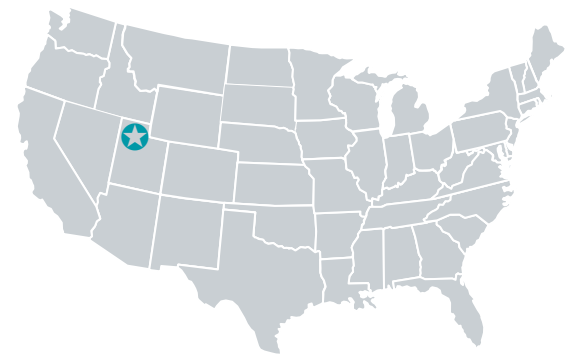
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# Salt Lake City

Full MSA name: Salt Lake City, UT

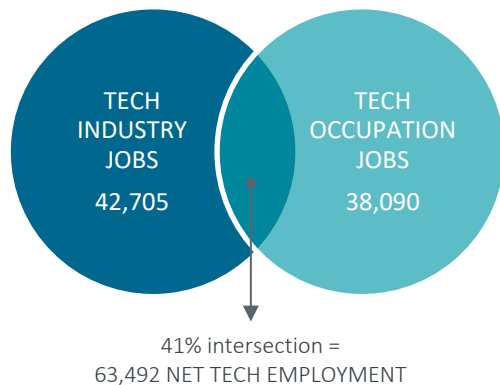


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

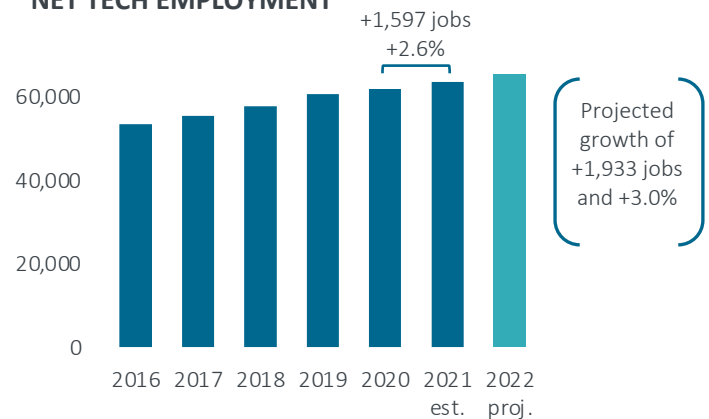
63,492 NET TECH EMPLOYMENT<sup>1</sup>  
 8.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$10.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 10.4% ECONOMIC IMPACT AS A % OF OVERALL  
 4,845 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 23,986 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

28<sup>th</sup> NET TECH EMPLOYMENT RANK  
 6<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 2<sup>nd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 4<sup>th</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



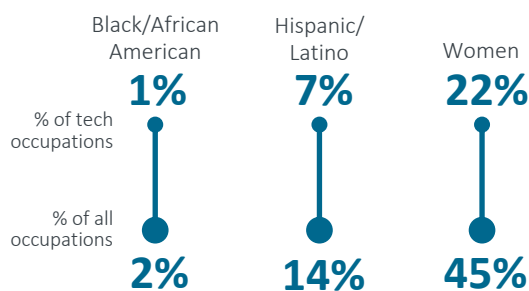
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	14,514	4.6%
IT Support Specialist and Repair Technicians	6,333	2.3%
Emerging Tech, IT Project Mgt. and Other	4,638	2.3%
Network Engineers, Architects and Support	4,042	2.8%
Cybersecurity and Systems Engineers	3,100	4.5%
Database, Data Science and CS	1,759	3.4%

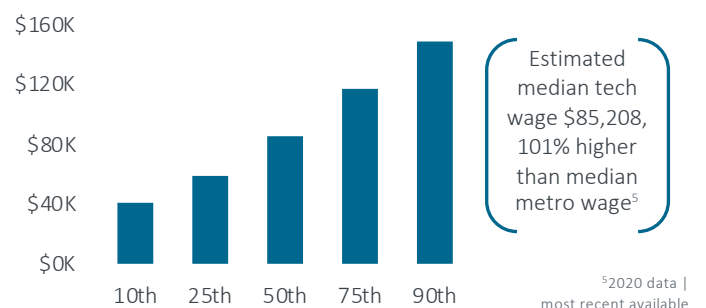
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

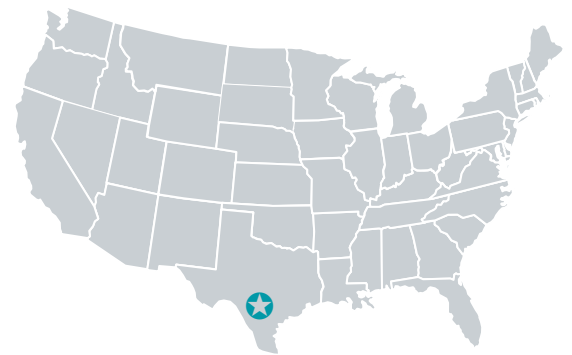
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# San Antonio

Full MSA name: San Antonio-New Braunfels, TX

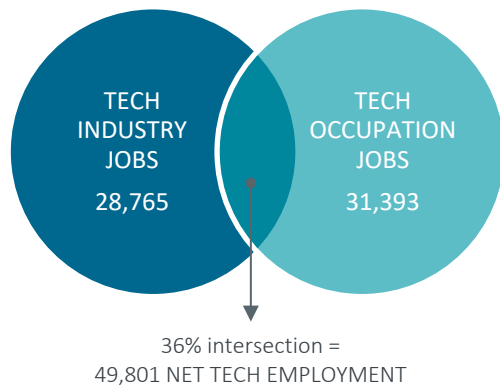


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

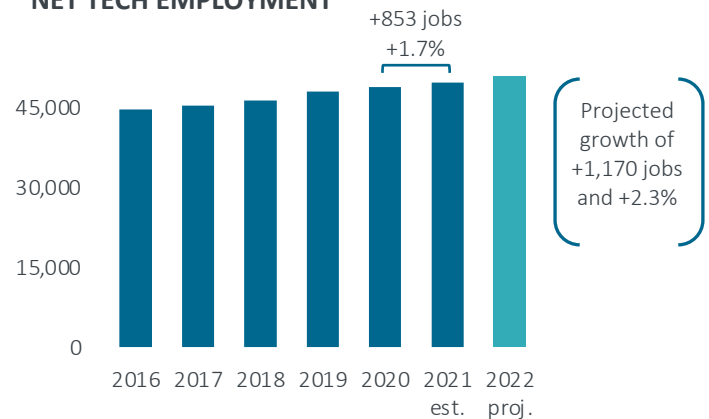
49,801 NET TECH EMPLOYMENT<sup>1</sup>  
 4.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$6.7b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.2% ECONOMIC IMPACT AS A % OF OVERALL  
 1,906 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 25,072 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.1% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

35<sup>th</sup> NET TECH EMPLOYMENT RANK  
 13<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 23<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

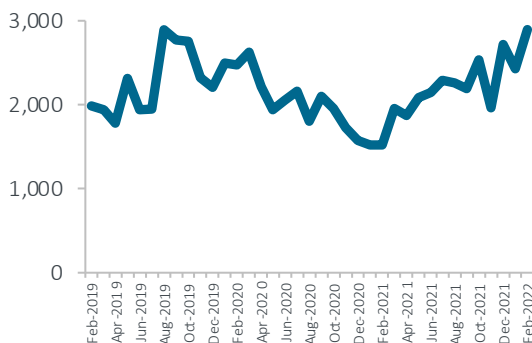


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



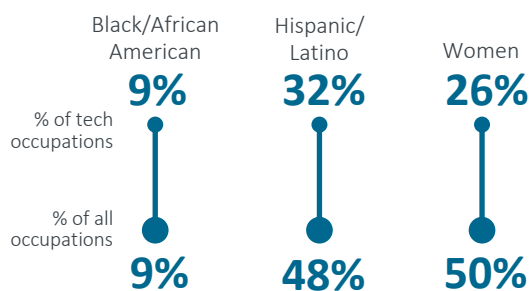
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	7,867	4.1%
IT Support Specialist and Repair Technicians	5,708	1.8%
Network Engineers, Architects and Support	5,518	1.7%
Cybersecurity and Systems Engineers	5,334	2.6%
Emerging Tech, IT Project Mgt. and Other	3,280	2.4%
Database, Data Science, and CS	1,404	3.0%

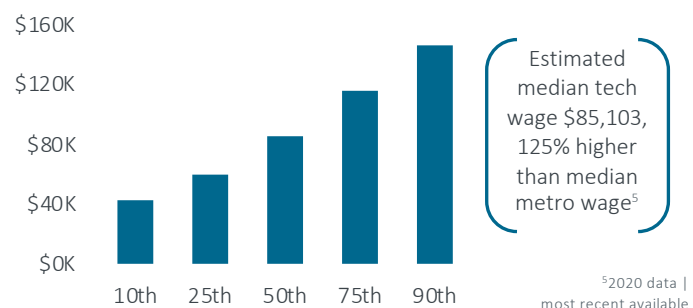
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



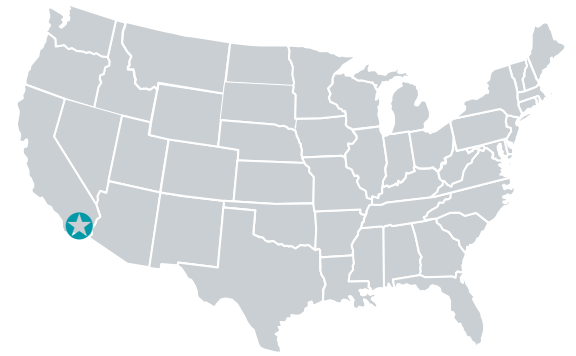
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

## TECH OCCUPATION WAGES [by percentile]



# San Diego

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

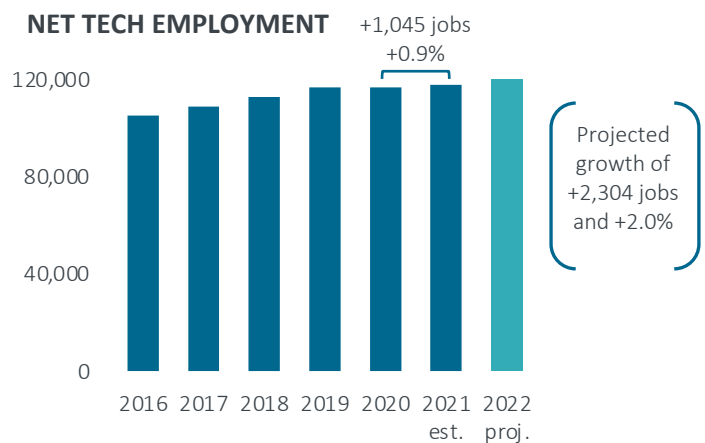
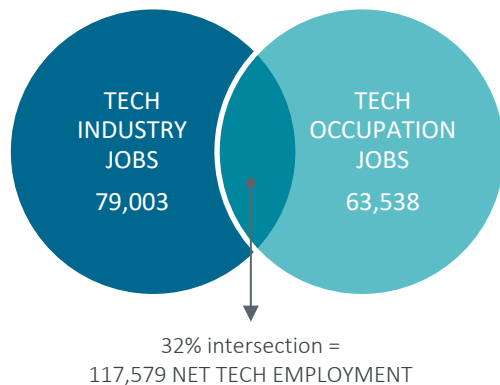


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

117,579 NET TECH EMPLOYMENT<sup>1</sup>  
 7.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$27.4b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 11.7% ECONOMIC IMPACT AS A % OF OVERALL  
 4,201 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 49,484 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.0% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

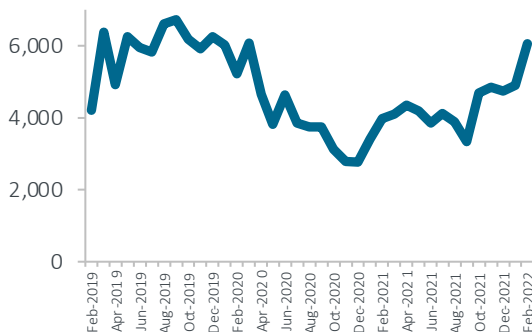
17<sup>th</sup> NET TECH EMPLOYMENT RANK  
 8<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 45<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



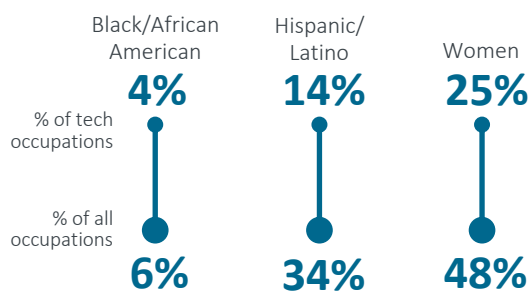
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	24,618	3.3%
Emerging Tech, IT Project Mgt. and Other	9,115	1.5%
Cybersecurity and Systems Engineers	7,710	2.3%
Network Engineers, Architects and Support	5,924	1.5%
IT Support Specialist and Repair Technicians	5,416	1.5%
Database, Data Science and CS	2,996	2.5%

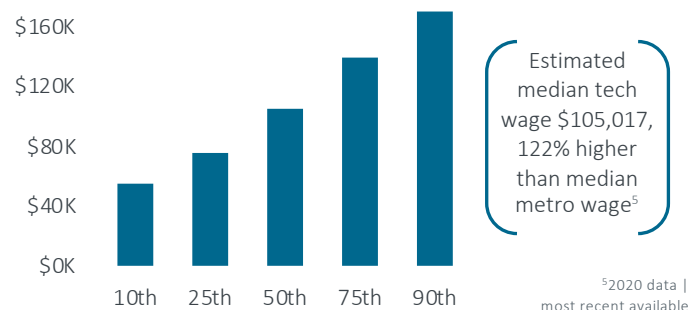
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

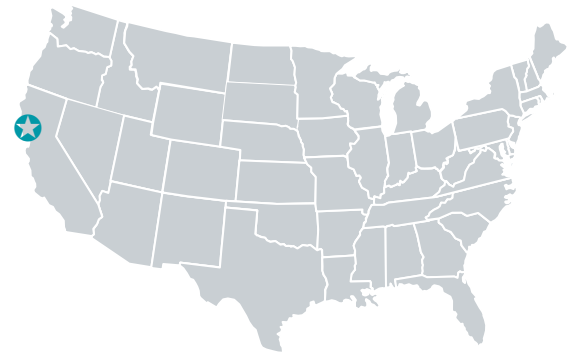
## TECH OCCUPATION WAGES [by percentile]





# San Francisco

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

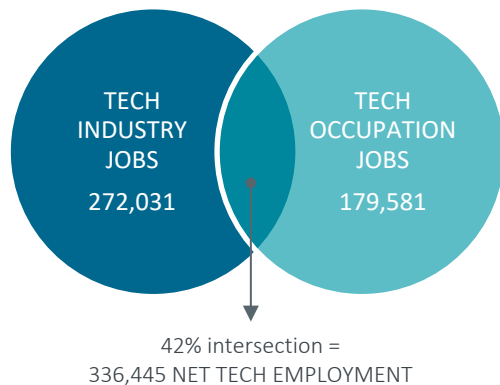


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

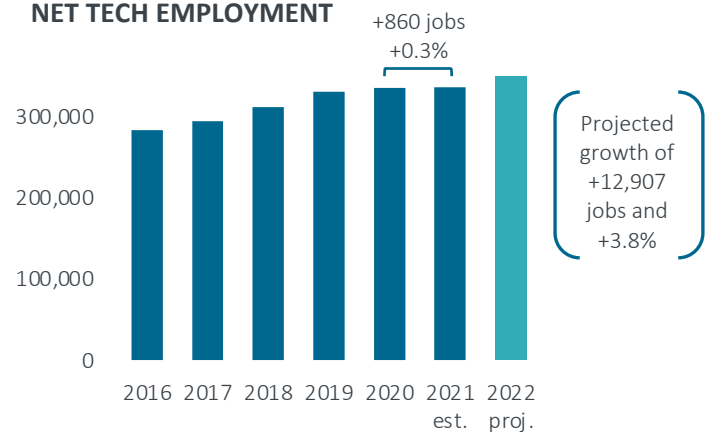
336,445 NET TECH EMPLOYMENT<sup>1</sup>  
 13.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$171.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 28.1% ECONOMIC IMPACT AS A % OF OVERALL  
 10,558 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 132,533 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 40.8% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

5<sup>th</sup> NET TECH EMPLOYMENT RANK  
 12<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 44<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

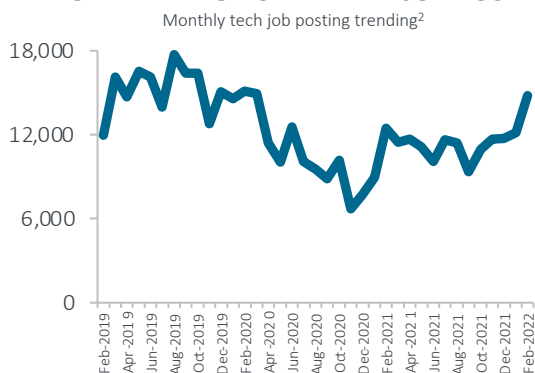
<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.



## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS



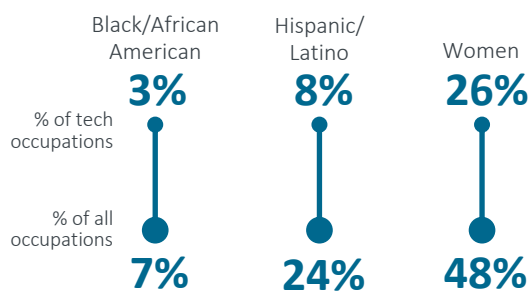
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	75,949	4.5%
Emerging Tech, IT Project Mgt. and Other	20,903	2.0%
Cybersecurity and Systems Engineers	17,714	3.0%
IT Support Specialist and Repair Technicians	17,349	2.6%
Network Engineers, Architects and Support	13,647	2.7%
Database, Data Science and CS	9,110	3.8%

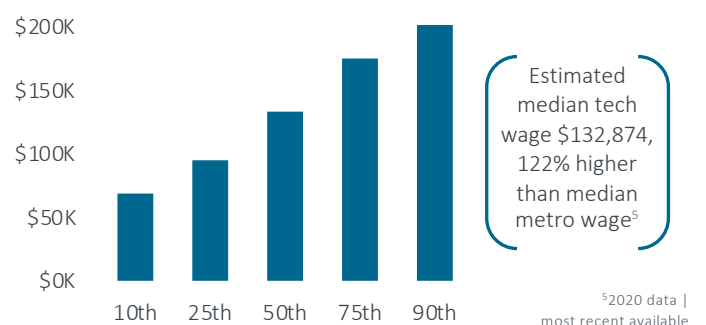
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

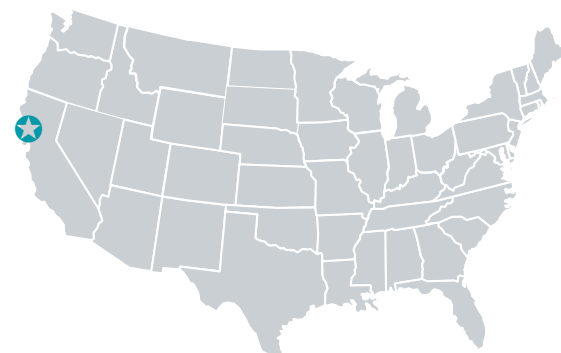
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# San Jose

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

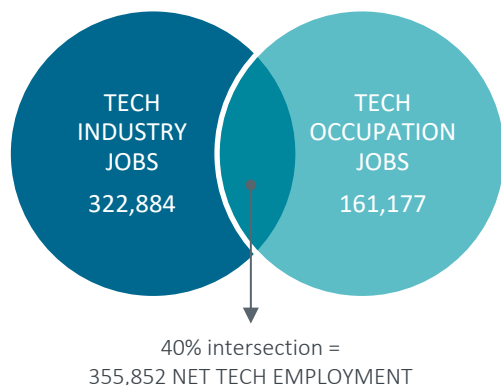


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

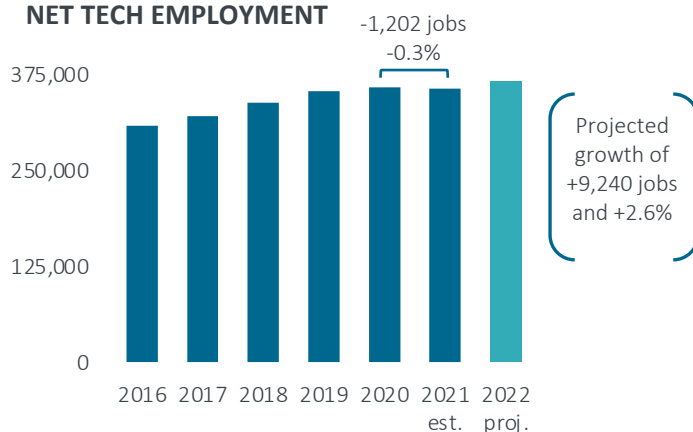
355,852 NET TECH EMPLOYMENT<sup>1</sup>  
 31.4% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$212.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 58.2% ECONOMIC IMPACT AS A % OF OVERALL  
 6,529 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 102,973 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 43.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

4<sup>th</sup> NET TECH EMPLOYMENT RANK  
 46<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 50<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

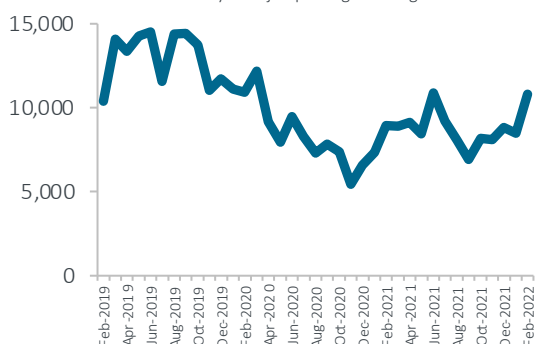


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



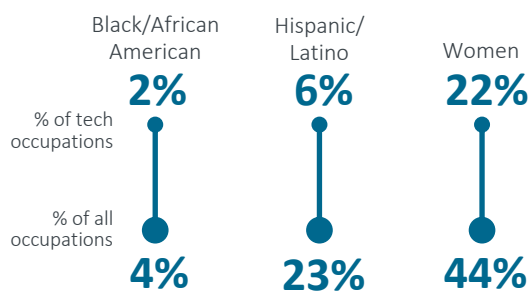
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	82,311	4.1%
Emerging Tech, IT Project Mgt. and Other	16,162	1.7%
Cybersecurity and Systems Engineers	12,976	2.9%
Network Engineers, Architects and Support	10,759	2.5%
IT Support Specialist and Repair Technicians	10,475	3.0%
Database, Data Science and CS	6,128	3.6%

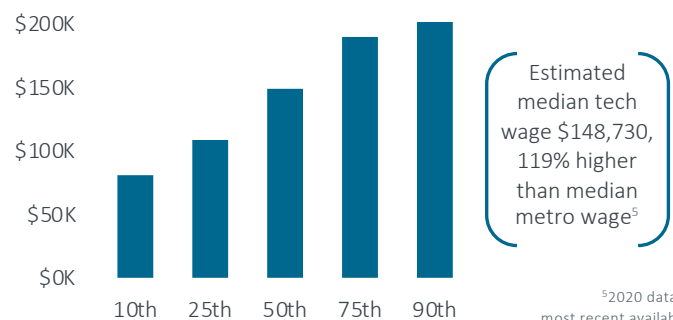
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

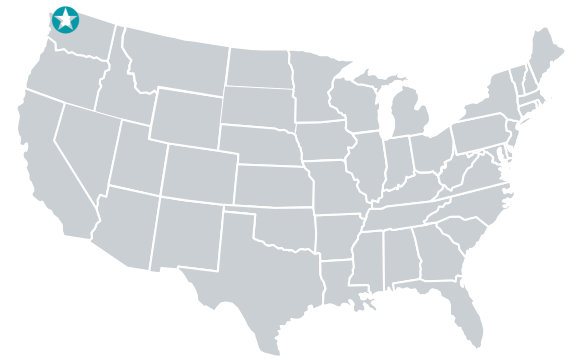
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Seattle

Full MSA name: Seattle-Tacoma-Bellevue, WA

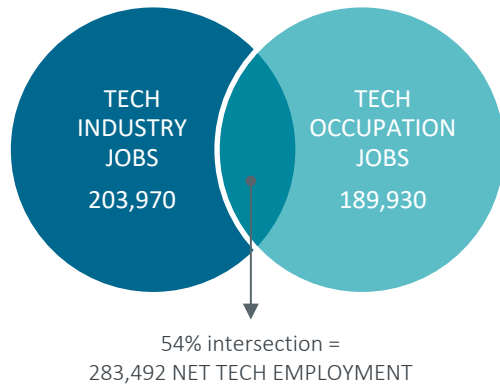


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

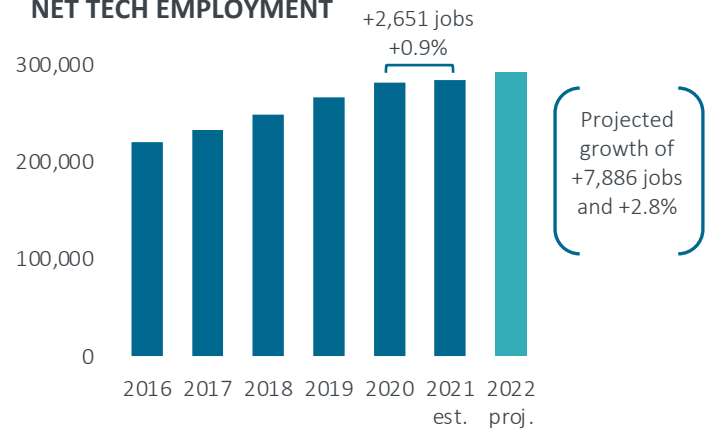
283,492 NET TECH EMPLOYMENT<sup>1</sup>  
 13.7% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$121.6b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 29.5% ECONOMIC IMPACT AS A % OF OVERALL  
 10,522 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 94,289 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 41.7% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

7<sup>th</sup> NET TECH EMPLOYMENT RANK  
 2<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 21<sup>st</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

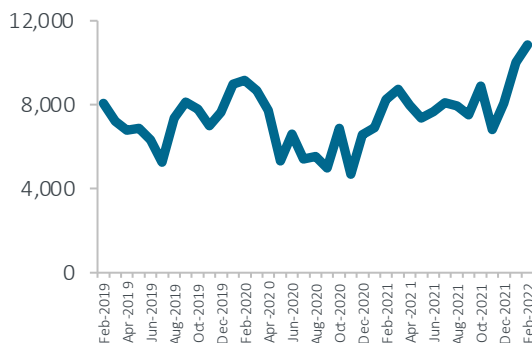


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



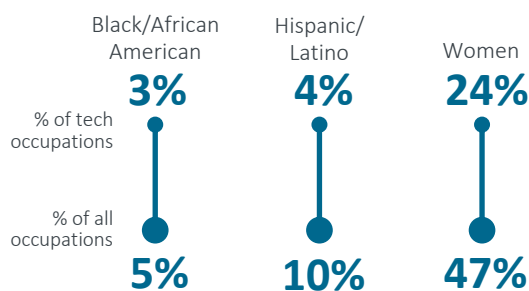
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	114,381	3.1%
Cybersecurity and Systems Engineers	18,800	1.6%
IT Support Specialist and Repair Technicians	14,313	2.1%
Network Engineers, Architects and Support	11,673	1.7%
Emerging Tech, IT Project Mgt. and Other	8,869	2.0%
Database, Data Science and CS	7,082	3.2%

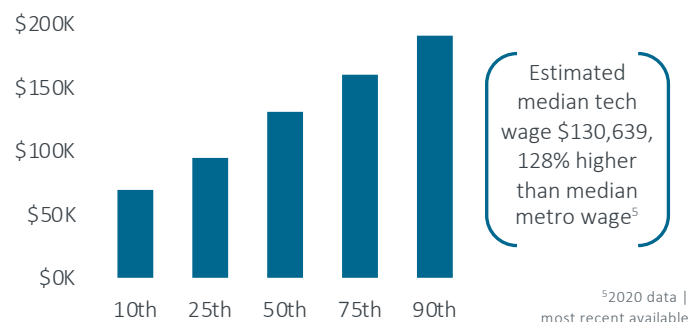
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

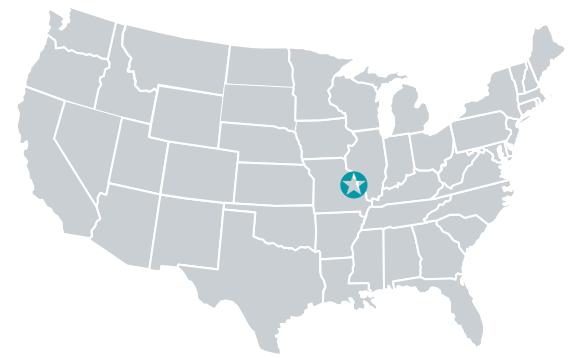
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# St. Louis

Full MSA name: St. Louis, MO-IL

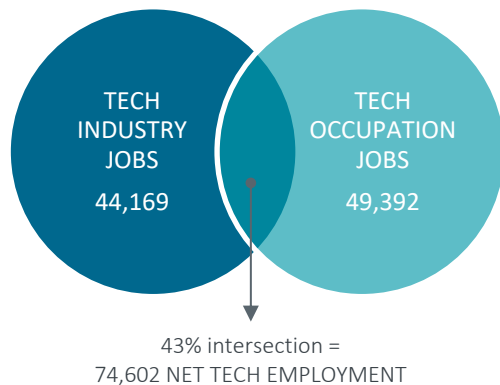


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

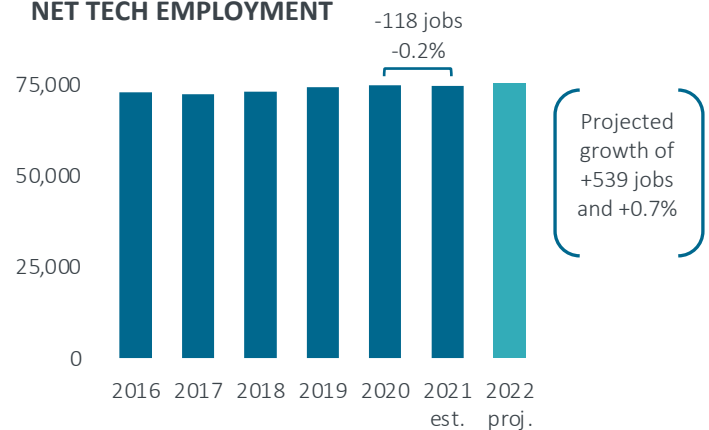
74,602 NET TECH EMPLOYMENT<sup>1</sup>  
 5.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$12.8b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 7.6% ECONOMIC IMPACT AS A % OF OVERALL  
 2,669 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 37,637 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 26.3% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

25<sup>th</sup> NET TECH EMPLOYMENT RANK  
 34<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 34<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 3<sup>rd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

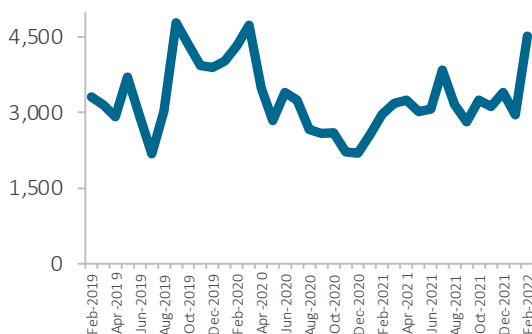


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



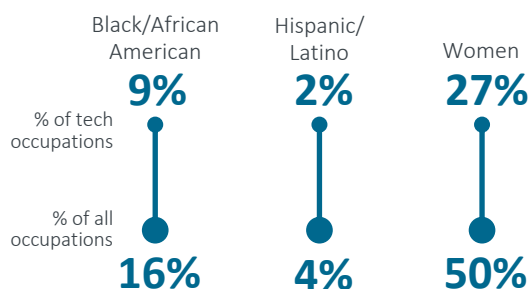
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	16,786	2.3%
IT Support Specialist and Repair Technicians	8,057	0.0%
Cybersecurity and Systems Engineers	7,251	0.9%
Network Engineers, Architects and Support	7,205	-0.3%
Emerging Tech, IT Project Mgt. and Other	3,262	0.9%
Database, Data Science and CS	2,460	1.2%

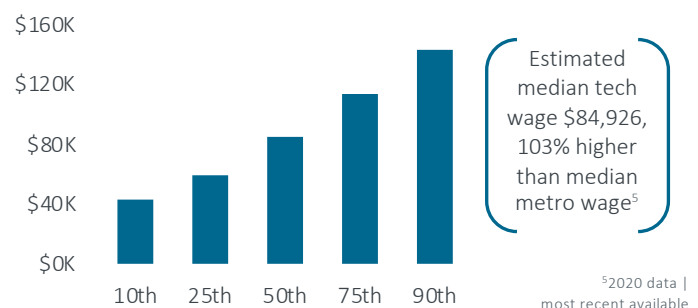
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



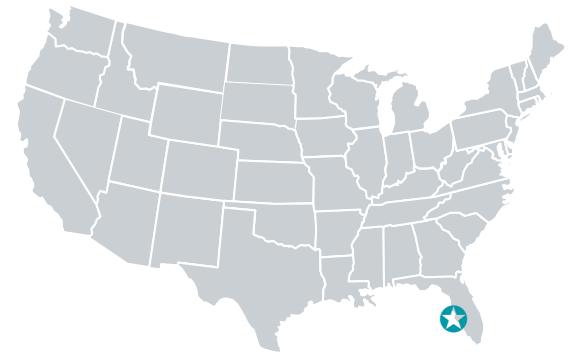
<sup>4</sup>Data covers core tech occupations | See Appendix for other Race/Ethnicities and age characteristics

### TECH OCCUPATION WAGES [by percentile]



# Tampa

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

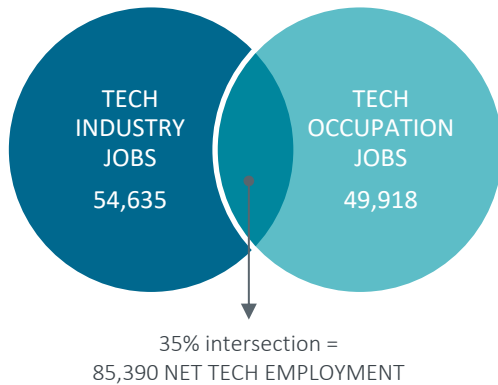


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

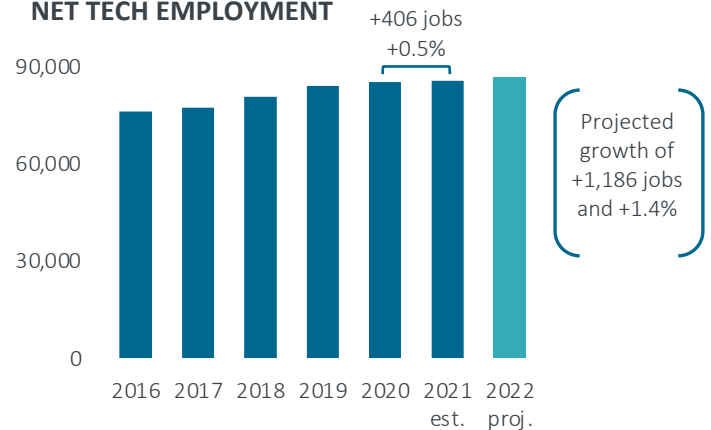
85,390 NET TECH EMPLOYMENT<sup>1</sup>  
 6.2% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$15.5b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 9.0% ECONOMIC IMPACT AS A % OF OVERALL  
 4,393 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 44,322 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 25.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

22<sup>nd</sup> NET TECH EMPLOYMENT RANK  
 21<sup>st</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 6<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 2<sup>nd</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

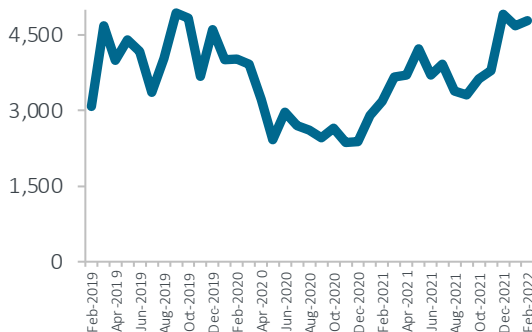


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



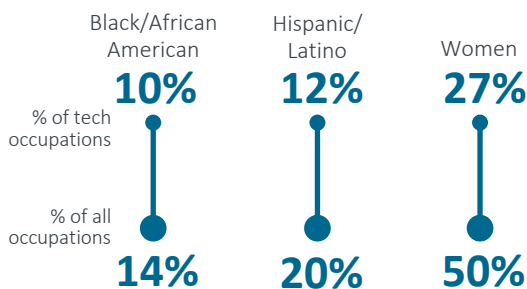
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	16,748	3.2%
IT Support Specialist and Repair Technicians	9,213	1.1%
Cybersecurity and Systems Engineers	8,426	2.2%
Network Engineers, Architects and Support	6,427	1.3%
Emerging Tech, IT Project Mgt. and Other	2,333	2.5%
Database, Data Science and CS	2,153	2.3%

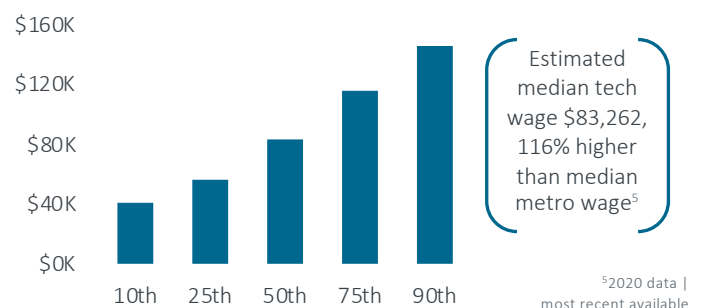
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

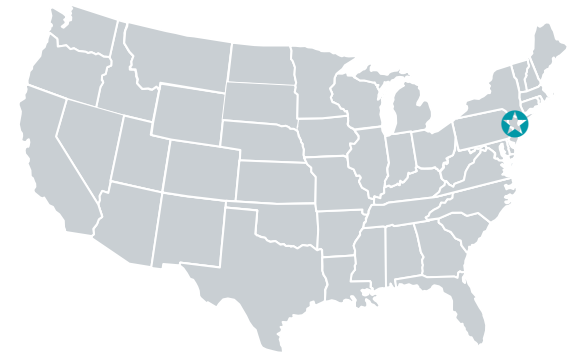
### TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Trenton

Full MSA name: Trenton-Princeton, NJ

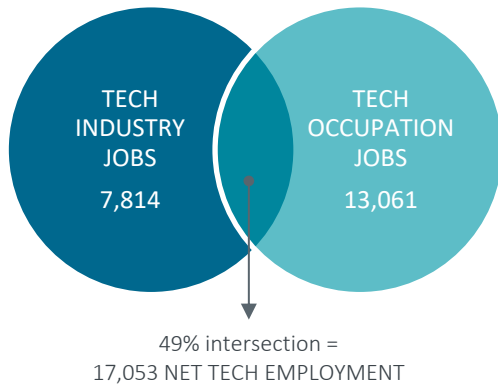


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

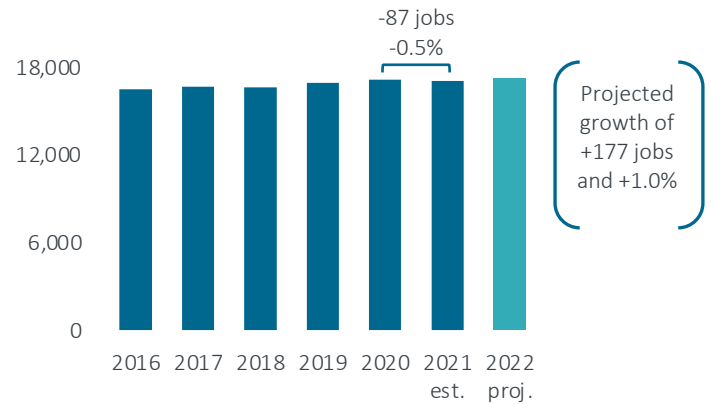
17,053 NET TECH EMPLOYMENT<sup>1</sup>  
 6.6% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$2.3b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 5.8% ECONOMIC IMPACT AS A % OF OVERALL  
 753 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 11,374 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 29.6% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

50<sup>th</sup> NET TECH EMPLOYMENT RANK  
 32<sup>nd</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 36<sup>th</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed |  
 Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

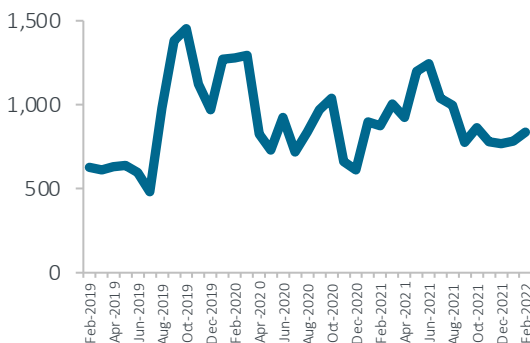


## NET TECH EMPLOYMENT



## EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



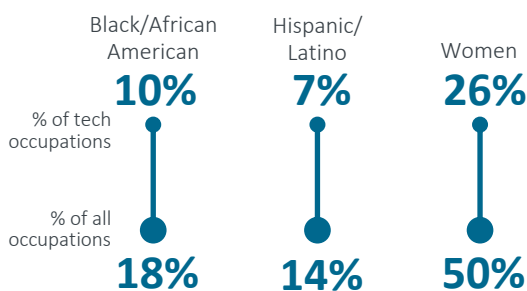
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

## LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	5,365	2.2%
Cybersecurity and Systems Engineers	1,834	2.0%
Network Engineers, Architects and Support	1,705	1.1%
IT Support Specialist and Repair Technicians	1,438	1.2%
Database, Data Science and CS	683	2.4%
Emerging Tech, IT Project Mgt. and Other	643	1.5%

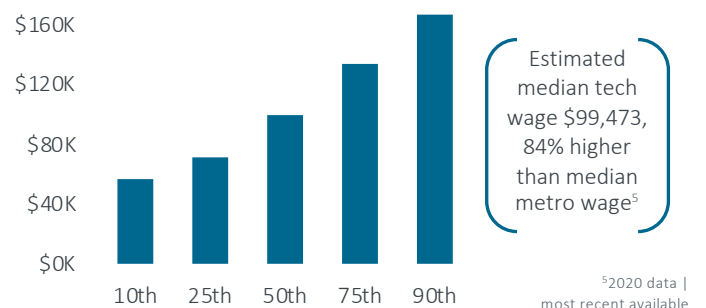
<sup>3</sup>Projected growth rate for 2022

## TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

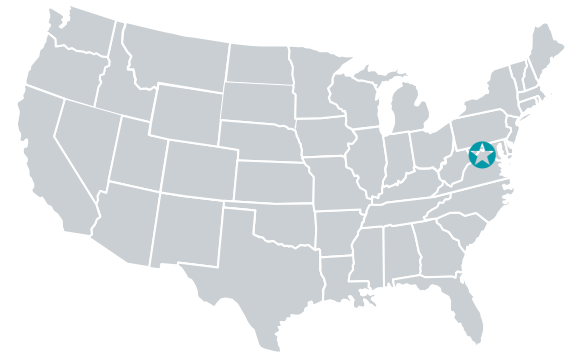
## TECH OCCUPATION WAGES [by percentile]



<sup>5</sup>2020 data | most recent available

# Washington D.C.

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

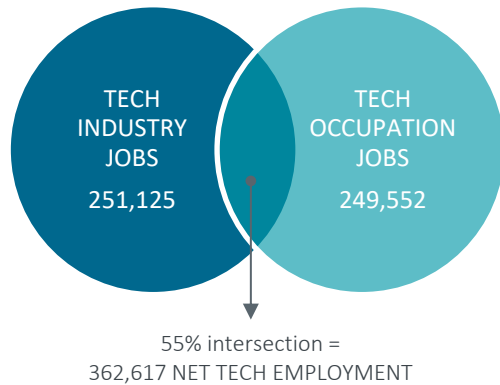


## STATE OF TECHNOLOGY SUMMARY [note: definition changes<sup>1</sup>]

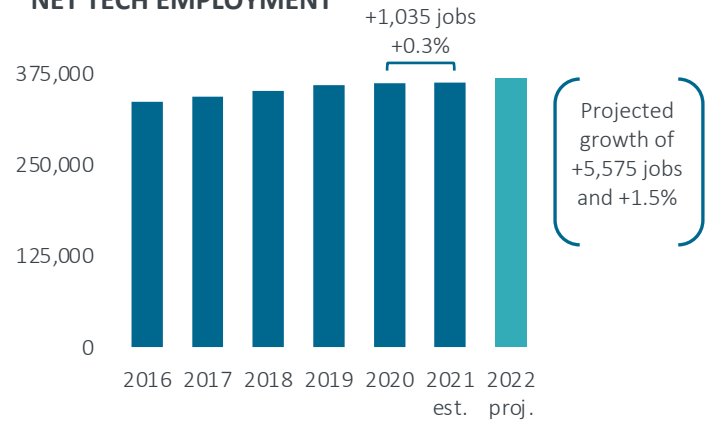
362,617 NET TECH EMPLOYMENT<sup>1</sup>  
 11.3% NET EMPLOYMENT AS A % OF OVERALL WORKFORCE  
 \$74.0b ECONOMIC IMPACT [estimated direct impact of tech sector]  
 13.9% ECONOMIC IMPACT AS A % OF OVERALL  
 18,427 TECH BUSINESS ESTABLISHMENTS [firms with payroll]  
 195,433 EMPLOYER JOB POSTINGS [2021 total for tech occupations]  
 30.5% EMERGING TECH EMPLOYER JOB POSTINGS % OF TOTAL

2<sup>nd</sup> NET TECH EMPLOYMENT RANK  
 9<sup>th</sup> NET TECH EMPLOYMENT JOBS ADDED RANK  
 43<sup>rd</sup> TECH BUSINESS ESTABLISHMENTS % CHANGE RANK  
 1<sup>st</sup> DIVERSITY INDEX QUARTILE [1<sup>st</sup> = top | see footnote]

<sup>1</sup>IMPORTANT NOTE: definition change of tech industry and occupation employment; results will not be directly comparable to prior year reporting | Net of tech industry + tech occupation + self-employed | Sources: CompTIA analysis of EMSI Burning Glass, U.S. Bureau of Labor Statistics, U.S. Bureau of Economic Analysis, and other sources | See report Methodology for details of rankings and related data.

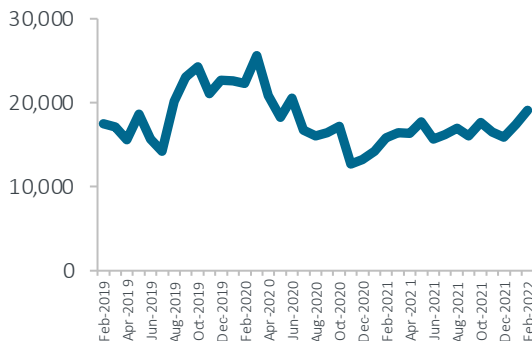


### NET TECH EMPLOYMENT



### EMPLOYER HIRING ACTIVITY VIA JOB POSTINGS

Monthly tech job posting trending<sup>2</sup>



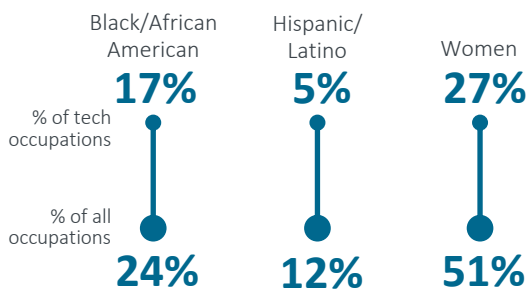
<sup>2</sup>Data covers core tech occupations where location specified | Source: EMSI Burning Glass

### LEADING TECH OCCUPATIONS

	2021	2022 % Change <sup>3</sup>
Software, Programmers, Web and QA	87,416	2.7%
Cybersecurity and Systems Engineers	37,052	2.0%
Emerging Tech, IT Project Mgt. and Other	35,999	1.7%
Network Engineers, Architects and Support	33,269	0.5%
IT Support Specialist and Repair Technicians	21,431	1.4%
Database, Data Science and CS <sup>3</sup>	12,601	2.0%

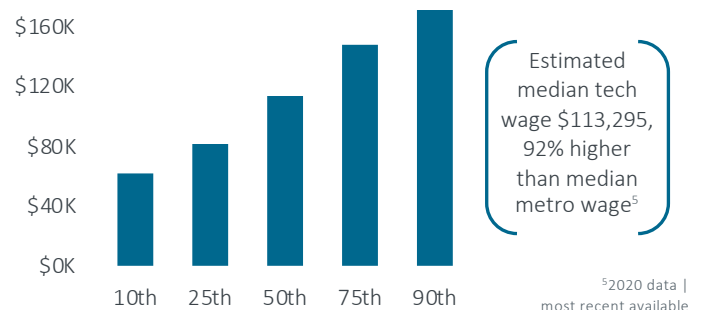
<sup>3</sup>Projected growth rate for 2022

### TECH WORKFORCE CHARACTERISTICS<sup>4</sup>



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

### TECH OCCUPATION WAGES [by percentile]



## APPENDIX TABLES – A NET TECH EMPLOYMENT



# NET TECH EMPLOYMENT TRENDING BY STATE

## APPENDIX A.1

For an explanation of the net tech employment calculation, see page 5

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021 est.</u>	<u>2022 proj.</u>
United States	7,885,553	8,051,129	8,285,087	8,522,957	8,599,275	8,679,198	8,856,902
Alabama	77,516	78,462	80,704	82,352	82,970	83,860	85,083
Alaska	10,620	10,419	10,158	10,100	10,008	10,011	10,091
Arizona	166,908	170,630	177,456	185,668	191,083	192,768	198,270
Arkansas	39,631	38,273	37,068	37,384	38,378	38,826	39,772
California	1,255,498	1,293,103	1,347,131	1,396,655	1,406,282	1,411,447	1,443,182
Colorado	202,533	208,910	218,752	227,694	232,534	236,158	243,574
Connecticut	93,963	93,296	93,271	93,125	92,637	92,420	92,177
Delaware	23,739	23,856	23,795	23,458	23,382	23,191	23,225
District of Columbia	60,855	62,614	63,967	66,350	67,233	67,454	69,441
Florida	381,791	395,761	411,446	428,335	435,744	446,266	457,660
Georgia	260,275	264,976	270,786	276,072	277,447	281,666	287,337
Hawaii	18,987	19,205	19,438	19,557	18,702	18,791	18,873
Idaho	32,848	33,375	35,015	35,897	35,745	36,696	37,606
Illinois	310,333	312,926	316,926	322,894	317,999	318,662	321,106
Indiana	106,865	107,083	107,930	110,286	110,872	112,567	114,577
Iowa	62,771	63,475	65,054	66,586	66,027	65,613	66,268
Kansas	61,070	60,797	61,351	62,500	66,348	65,750	66,833
Kentucky	61,116	62,336	62,418	62,902	63,683	64,672	65,703
Louisiana	43,777	44,795	45,341	45,679	45,108	45,705	46,547
Maine	21,014	21,248	22,384	22,706	22,756	23,275	23,763
Maryland	194,961	200,007	206,390	210,999	209,724	211,435	215,654
Massachusetts	288,415	292,792	298,651	308,752	307,462	307,926	311,580
Michigan	189,431	191,918	193,402	194,123	188,464	190,133	191,927
Minnesota	179,443	180,693	182,937	184,130	182,032	181,825	182,756
Mississippi	25,520	25,865	25,902	26,171	26,548	27,124	27,623
Missouri	142,054	143,938	146,429	148,666	150,690	153,517	157,026
Montana	14,347	14,608	14,914	14,909	15,114	15,388	15,736
Nebraska	46,960	47,900	48,294	49,107	49,839	50,330	51,187
Nevada	36,613	38,523	41,518	43,146	42,560	43,978	45,322
New Hampshire	47,964	50,662	52,285	53,373	53,577	54,284	55,261
New Jersey	245,611	244,620	248,754	249,858	248,323	251,437	254,257
New Mexico	31,225	30,484	31,382	32,301	32,558	32,667	32,977
New York	479,029	488,133	499,162	509,067	508,886	506,529	517,900
North Carolina	237,004	244,398	254,109	261,403	269,163	274,167	282,360
North Dakota	13,069	12,940	13,029	12,657	12,276	12,264	12,364
Ohio	241,746	246,788	249,824	252,635	251,021	252,910	256,228
Oklahoma	53,340	53,308	54,356	55,404	55,795	56,315	56,680
Oregon	117,758	119,733	122,221	125,911	127,035	127,790	130,554
Pennsylvania	271,652	273,864	278,131	284,280	282,531	285,376	289,823
Rhode Island	25,961	25,100	25,564	26,193	25,886	26,635	27,127
South Carolina	71,574	74,303	77,060	79,441	80,502	81,755	84,163
South Dakota	13,297	13,777	14,333	14,793	15,016	15,228	15,553
Tennessee	97,966	101,248	104,186	107,954	113,103	116,384	119,603
Texas	679,441	694,222	724,388	758,949	780,130	790,981	812,284
Utah	94,440	98,916	103,015	108,125	110,993	113,646	117,797
Vermont	16,248	16,323	16,290	16,485	15,898	15,961	15,948
Virginia	318,775	325,014	333,739	343,399	349,093	351,449	358,539
Washington	264,418	277,469	294,373	313,034	328,922	333,391	342,791
West Virginia	18,755	18,917	18,761	18,783	19,024	19,426	19,827
Wisconsin	132,219	133,438	135,214	136,910	137,015	137,887	139,585
Wyoming	5,416	5,480	5,733	5,890	5,785	5,937	6,051

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# NET TECH EMPLOYMENT TRENDING BY METRO

## APPENDIX A.2

For an explanation of the net tech employment calculation, see page 5

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021 est.</u>	<u>2022 proj.</u>
United States	7,885,553	8,051,129	8,285,087	8,522,957	8,599,275	8,679,198	8,856,902
Albuquerque	20,165	19,419	19,996	20,434	20,546	20,424	20,379
Atlanta	202,642	207,417	211,010	216,400	216,276	217,170	220,376
Austin	124,679	129,371	137,087	146,521	152,967	154,813	160,409
Baltimore	94,181	97,923	102,275	105,157	105,619	105,355	107,614
Boise	21,676	21,971	23,108	23,736	23,427	23,758	24,096
Boston	252,468	258,319	262,940	272,432	271,612	270,284	273,231
Buffalo	23,713	24,090	24,951	24,542	23,455	23,264	23,437
Charleston	15,449	15,996	16,873	17,032	17,489	17,216	17,742
Charlotte	70,637	73,380	76,037	76,569	81,970	83,116	85,873
Chicago	247,577	249,330	250,746	253,033	247,949	245,484	245,798
Cincinnati	50,378	50,915	51,547	51,545	51,949	52,208	52,920
Cleveland	49,039	50,413	50,502	50,888	50,307	50,584	50,854
Colorado Springs	23,944	24,239	25,111	25,556	26,314	26,838	27,328
Dallas	268,437	273,751	284,519	298,812	308,126	313,447	321,138
Denver	123,809	128,462	135,679	141,346	144,503	147,005	152,088
Des Moines	21,377	22,330	23,325	23,574	24,213	24,265	24,579
Detroit	103,264	104,385	104,785	104,493	100,882	100,088	99,679
Hartford	34,942	34,716	34,509	35,073	35,261	34,914	34,993
Houston	132,300	130,966	132,485	136,254	134,718	134,436	134,754
Huntsville	23,576	24,037	25,273	26,263	27,013	27,197	27,621
Indianapolis	52,309	52,106	52,560	54,458	54,824	55,320	56,307
Kansas City	70,794	71,615	72,796	74,177	78,245	77,935	79,827
Las Vegas	25,239	26,755	28,660	29,733	28,862	29,470	30,203
Los Angeles	343,732	347,666	356,008	364,043	361,201	359,158	359,869
Memphis	17,632	17,983	18,122	18,145	18,133	18,228	18,325
Miami	103,846	106,594	108,854	112,733	112,009	114,081	115,472
Milwaukee	48,242	48,059	48,035	47,624	45,927	45,590	45,040
Minneapolis	147,861	148,211	151,557	153,289	151,973	151,115	151,500
Nashville	40,703	42,718	44,458	47,476	49,764	50,545	51,986
New Orleans	14,137	14,433	14,373	14,940	15,231	15,387	15,691
New York City	497,363	503,544	515,410	528,564	529,333	526,086	535,909
Oklahoma City	24,360	23,923	24,045	23,926	23,930	24,310	24,163
Omaha	29,331	29,616	29,515	29,843	30,030	30,218	30,489
Orlando	57,164	60,520	63,182	64,164	63,684	64,306	65,628
Philadelphia	156,208	156,067	156,958	159,521	159,480	157,428	158,064
Phoenix	137,856	140,359	145,346	152,007	157,129	158,137	162,312
Pittsburgh	60,761	60,809	62,389	62,366	60,966	60,734	61,246
Portland	101,829	103,063	105,481	108,568	109,306	109,516	111,702
Providence	32,457	31,834	32,113	32,644	31,958	32,471	32,725
Raleigh	67,955	70,193	72,349	74,258	67,890	68,603	70,045
Sacramento	52,048	51,525	52,125	53,745	53,424	53,335	53,839
Salt Lake City	53,456	55,413	57,638	60,635	61,894	63,492	65,424
San Antonio	44,730	45,500	46,444	48,147	48,948	49,801	50,971
San Diego	105,091	108,592	112,560	116,604	116,535	117,579	119,883
San Francisco	283,356	294,368	311,631	330,757	335,585	336,445	349,353
San Jose	307,146	320,029	337,725	352,554	357,054	355,852	365,092
Seattle	219,576	232,496	248,134	265,697	280,841	283,492	291,378
St. Louis	72,745	72,265	73,024	74,179	74,720	74,602	75,142
Tampa	75,992	77,086	80,468	83,955	84,984	85,390	86,576
Trenton	16,488	16,680	16,637	16,922	17,140	17,053	17,230
Washington DC	335,895	343,059	350,757	358,948	361,581	362,617	368,191

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

## NET TECH EMPLOYMENT 2021 est.

Rank	State	Employment
	United States	8,679,198
1.	California	1,411,447
2.	Texas	790,981
3.	New York	506,529
4.	Florida	446,266
5.	Virginia	351,449
6.	Washington	333,391
7.	Illinois	318,662
8.	Massachusetts	307,926
9.	Pennsylvania	285,376
10.	Georgia	281,666
11.	North Carolina	274,167
12.	Ohio	252,910
13.	New Jersey	251,437
14.	Colorado	236,158
15.	Maryland	211,435
16.	Arizona	192,768
17.	Michigan	190,133
18.	Minnesota	181,825
19.	Missouri	153,517
20.	Wisconsin	137,887
21.	Oregon	127,790
22.	Tennessee	116,384
23.	Utah	113,646
24.	Indiana	112,567
25.	Connecticut	92,420
26.	Alabama	83,860
27.	South Carolina	81,755
28.	District of Columbia	67,454
29.	Kansas	65,750
30.	Iowa	65,613
31.	Kentucky	64,672
32.	Oklahoma	56,315
33.	New Hampshire	54,284
34.	Nebraska	50,330
35.	Louisiana	45,705
36.	Nevada	43,978
37.	Arkansas	38,826
38.	Idaho	36,696
39.	New Mexico	32,667
40.	Mississippi	27,124
41.	Rhode Island	26,635
42.	Maine	23,275
43.	Delaware	23,191
44.	West Virginia	19,426
45.	Hawaii	18,791
46.	Vermont	15,961
47.	Montana	15,388
48.	South Dakota	15,228
49.	North Dakota	12,264
50.	Alaska	10,011
51.	Wyoming	5,937

## NET TECH EMPLOYMENT JOBS ADDED 2021 est.

Rank	State	Jobs Added
	United States	+79,922
1.	Texas	+10,851
2.	Florida	+10,522
3.	California	+5,165
4.	North Carolina	+5,004
5.	Washington	+4,469
6.	Georgia	+4,219
7.	Colorado	+3,624
8.	Tennessee	+3,282
9.	New Jersey	+3,114
10.	Pennsylvania	+2,844
11.	Missouri	+2,827
12.	Utah	+2,654
13.	Virginia	+2,356
14.	Ohio	+1,889
15.	Maryland	+1,711
16.	Indiana	+1,695
17.	Arizona	+1,684
18.	Michigan	+1,669
19.	Nevada	+1,418
20.	South Carolina	+1,254
21.	Kentucky	+990
22.	Idaho	+951
23.	Alabama	+890
24.	Wisconsin	+872
25.	Oregon	+755
26.	Rhode Island	+749
27.	New Hampshire	+707
28.	Illinois	+663
29.	Louisiana	+597
30.	Mississippi	+576
31.	Oklahoma	+520
32.	Maine	+519
33.	Nebraska	+492
34.	Massachusetts	+464
35.	Arkansas	+448
36.	West Virginia	+402
37.	Montana	+274
38.	District of Columbia	+221
39.	South Dakota	+212
40.	Wyoming	+152
41.	New Mexico	+109
42.	Hawaii	+89
43.	Vermont	+63
44.	Alaska	+3
45.	North Dakota	-13
46.	Delaware	-191
47.	Minnesota	-207
48.	Connecticut	-217
49.	Iowa	-414
50.	Kansas	-598
51.	New York	-2,356

## NET TECH EMPLOYMENT JOBS ADDED 2022 proj.

Rank	State	Jobs Added
	United States	+177,705
1.	California	+31,735
2.	Texas	+21,303
3.	Florida	+11,394
4.	New York	+11,371
5.	Washington	+9,400
6.	North Carolina	+8,193
7.	Colorado	+7,416
8.	Virginia	+7,090
9.	Georgia	+5,671
10.	Arizona	+5,502
11.	Pennsylvania	+4,448
12.	Maryland	+4,219
13.	Utah	+4,150
14.	Massachusetts	+3,654
15.	Missouri	+3,509
16.	Ohio	+3,317
17.	Tennessee	+3,219
18.	New Jersey	+2,820
19.	Oregon	+2,763
20.	Illinois	+2,444
21.	South Carolina	+2,408
22.	Indiana	+2,010
23.	District of Columbia	+1,986
24.	Michigan	+1,793
25.	Wisconsin	+1,698
26.	Nevada	+1,344
27.	Alabama	+1,222
28.	Kansas	+1,084
29.	Kentucky	+1,031
30.	New Hampshire	+978
31.	Arkansas	+945
32.	Minnesota	+931
33.	Idaho	+910
34.	Nebraska	+857
35.	Louisiana	+842
36.	Iowa	+656
37.	Mississippi	+499
38.	Rhode Island	+493
39.	Maine	+488
40.	West Virginia	+401
41.	Oklahoma	+365
42.	Montana	+348
43.	South Dakota	+325
44.	New Mexico	+310
45.	Wyoming	+114
46.	North Dakota	+100
47.	Hawaii	+81
48.	Alaska	+80
49.	Delaware	+34
50.	Vermont	-13
51.	Connecticut	-242

## NET TECH EMPLOYMENT 2021 est.

Rank	State	Employment
	United States	8,679,198
1.	California	1,411,447
2.	Texas	790,981
3.	New York	506,529
4.	Florida	446,266
5.	Virginia	351,449
6.	Washington	333,391
7.	Illinois	318,662
8.	Massachusetts	307,926
9.	Pennsylvania	285,376
10.	Georgia	281,666
11.	North Carolina	274,167
12.	Ohio	252,910
13.	New Jersey	251,437
14.	Colorado	236,158
15.	Maryland	211,435
16.	Arizona	192,768
17.	Michigan	190,133
18.	Minnesota	181,825
19.	Missouri	153,517
20.	Wisconsin	137,887
21.	Oregon	127,790
22.	Tennessee	116,384
23.	Utah	113,646
24.	Indiana	112,567
25.	Connecticut	92,420
26.	Alabama	83,860
27.	South Carolina	81,755
28.	District of Columbia	67,454
29.	Kansas	65,750
30.	Iowa	65,613
31.	Kentucky	64,672
32.	Oklahoma	56,315
33.	New Hampshire	54,284
34.	Nebraska	50,330
35.	Louisiana	45,705
36.	Nevada	43,978
37.	Arkansas	38,826
38.	Idaho	36,696
39.	New Mexico	32,667
40.	Mississippi	27,124
41.	Rhode Island	26,635
42.	Maine	23,275
43.	Delaware	23,191
44.	West Virginia	19,426
45.	Hawaii	18,791
46.	Vermont	15,961
47.	Montana	15,388
48.	South Dakota	15,228
49.	North Dakota	12,264
50.	Alaska	10,011
51.	Wyoming	5,937

## NET TECH EMPLOYMENT JOBS ADDED 2021 est.

Rank	State	% Change
	United States	+0.9%
1.	Nevada	+3.3%
2.	Tennessee	+2.9%
3.	Rhode Island	+2.9%
4.	Idaho	+2.7%
5.	Wyoming	+2.6%
6.	Florida	+2.4%
7.	Utah	+2.4%
8.	Maine	+2.3%
9.	Mississippi	+2.2%
10.	West Virginia	+2.1%
11.	Missouri	+1.9%
12.	North Carolina	+1.9%
13.	Montana	+1.8%
14.	Colorado	+1.6%
15.	South Carolina	+1.6%
16.	Kentucky	+1.6%
17.	Indiana	+1.5%
18.	Georgia	+1.5%
19.	South Dakota	+1.4%
20.	Texas	+1.4%
21.	Washington	+1.4%
22.	Louisiana	+1.3%
23.	New Hampshire	+1.3%
24.	New Jersey	+1.3%
25.	Arkansas	+1.2%
26.	Alabama	+1.1%
27.	Pennsylvania	+1.0%
28.	Nebraska	+1.0%
29.	Oklahoma	+0.9%
30.	Michigan	+0.9%
31.	Arizona	+0.9%
32.	Maryland	+0.8%
33.	Ohio	+0.8%
34.	Virginia	+0.7%
35.	Wisconsin	+0.6%
36.	Oregon	+0.6%
37.	Hawaii	+0.5%
38.	Vermont	+0.4%
39.	California	+0.4%
40.	New Mexico	+0.3%
41.	District of Columbia	+0.3%
42.	Illinois	+0.2%
43.	Massachusetts	+0.2%
44.	Alaska	+0.0%
45.	North Dakota	-0.1%
46.	Minnesota	-0.1%
47.	Connecticut	-0.2%
48.	New York	-0.5%
49.	Iowa	-0.6%
50.	Delaware	-0.8%
51.	Kansas	-0.9%

## NET TECH EMPLOYMENT JOBS ADDED 2022 proj.

Rank	State	% Change
	United States	+2.0%
1.	Utah	+3.7%
2.	Colorado	+3.1%
3.	Nevada	+3.1%
4.	North Carolina	+3.0%
5.	South Carolina	+2.9%
6.	District of Columbia	+2.9%
7.	Arizona	+2.9%
8.	Washington	+2.8%
9.	Tennessee	+2.8%
10.	Texas	+2.7%
11.	Florida	+2.6%
12.	Idaho	+2.5%
13.	Arkansas	+2.4%
14.	Missouri	+2.3%
15.	Montana	+2.3%
16.	California	+2.2%
17.	New York	+2.2%
18.	Oregon	+2.2%
19.	South Dakota	+2.1%
20.	Maine	+2.1%
21.	West Virginia	+2.1%
22.	Virginia	+2.0%
23.	Georgia	+2.0%
24.	Maryland	+2.0%
25.	Wyoming	+1.9%
26.	Rhode Island	+1.8%
27.	Louisiana	+1.8%
28.	Mississippi	+1.8%
29.	New Hampshire	+1.8%
30.	Indiana	+1.8%
31.	Nebraska	+1.7%
32.	Kansas	+1.6%
33.	Kentucky	+1.6%
34.	Pennsylvania	+1.6%
35.	Alabama	+1.5%
36.	Ohio	+1.3%
37.	Wisconsin	+1.2%
38.	Massachusetts	+1.2%
39.	New Jersey	+1.1%
40.	Iowa	+1.0%
41.	New Mexico	+0.9%
42.	Michigan	+0.9%
43.	North Dakota	+0.8%
44.	Alaska	+0.8%
45.	Illinois	+0.8%
46.	Oklahoma	+0.6%
47.	Minnesota	+0.5%
48.	Hawaii	+0.4%
49.	Delaware	+0.1%
50.	Vermont	-0.1%
51.	Connecticut	-0.3%

## NET TECH EMPLOYMENT 2021 est.

Rank	State	Employment
	United States	8,679,198
1.	New York City	526,086
2.	Washington DC	362,617
3.	Los Angeles	359,158
4.	San Jose	355,852
5.	San Francisco	336,445
6.	Dallas	313,447
7.	Seattle	283,492
8.	Boston	270,284
9.	Chicago	245,484
10.	Atlanta	217,170
11.	Phoenix	158,137
12.	Philadelphia	157,428
13.	Austin	154,813
14.	Minneapolis	151,115
15.	Denver	147,005
16.	Houston	134,436
17.	San Diego	117,579
18.	Miami	114,081
19.	Portland	109,516
20.	Baltimore	105,355
21.	Detroit	100,088
22.	Tampa	85,390
23.	Charlotte	83,116
24.	Kansas City	77,935
25.	St. Louis	74,602
26.	Raleigh	68,603
27.	Orlando	64,306
28.	Salt Lake City	63,492
29.	Pittsburgh	60,734
30.	Indianapolis	55,320
31.	Sacramento	53,335
32.	Cincinnati	52,208
33.	Cleveland	50,584
34.	Nashville	50,545
35.	San Antonio	49,801
36.	Milwaukee	45,590
37.	Hartford	34,914
38.	Providence	32,471
39.	Omaha	30,218
40.	Las Vegas	29,470
41.	Huntsville	27,197
42.	Colorado Springs	26,838
43.	Oklahoma City	24,310
44.	Des Moines	24,265
45.	Boise	23,758
46.	Buffalo	23,264
47.	Albuquerque	20,424
48.	Memphis	18,228
49.	Charleston	17,216
50.	Trenton	17,053
51.	New Orleans	15,387

## NET TECH EMPLOYMENT JOBS ADDED 2021 est.

Rank	State	Jobs Added
	United States	+79,922
1.	Dallas	+5,321
2.	Seattle	+2,651
3.	Denver	+2,502
4.	Miami	+2,072
5.	Austin	+1,846
6.	Salt Lake City	+1,597
7.	Charlotte	+1,147
8.	San Diego	+1,045
9.	Washington DC	+1,035
10.	Phoenix	+1,008
11.	Atlanta	+894
12.	San Francisco	+860
13.	San Antonio	+853
14.	Nashville	+781
15.	Raleigh	+712
16.	Orlando	+622
17.	Las Vegas	+608
18.	Colorado Springs	+524
19.	Providence	+514
20.	Indianapolis	+495
21.	Tampa	+406
22.	Oklahoma City	+380
23.	Boise	+331
24.	Cleveland	+276
25.	Cincinnati	+259
26.	Portland	+210
27.	Omaha	+188
28.	Huntsville	+185
29.	New Orleans	+155
30.	Memphis	+95
31.	Des Moines	+52
32.	Trenton	-87
33.	Sacramento	-89
34.	St. Louis	-118
35.	Albuquerque	-122
36.	Buffalo	-191
37.	Pittsburgh	-232
38.	Baltimore	-264
39.	Charleston	-273
40.	Houston	-281
41.	Kansas City	-310
42.	Milwaukee	-337
43.	Hartford	-348
44.	Detroit	-793
45.	Minneapolis	-858
46.	San Jose	-1,202
47.	Boston	-1,328
48.	Los Angeles	-2,043
49.	Philadelphia	-2,052
50.	Chicago	-2,465
51.	New York City	-3,247

## NET TECH EMPLOYMENT JOBS ADDED 2022 proj.

Rank	State	Jobs Added
	United States	+177,705
1.	San Francisco	+12,907
2.	New York City	+9823
3.	San Jose	+9240
4.	Seattle	+7886
5.	Dallas	+7691
6.	Austin	+5596
7.	Washington DC	+5575
8.	Denver	+5083
9.	Phoenix	+4175
10.	Atlanta	+3206
11.	Boston	+2947
12.	Charlotte	+2757
13.	San Diego	+2304
14.	Baltimore	+2260
15.	Portland	+2185
16.	Salt Lake City	+1933
17.	Kansas City	+1892
18.	Raleigh	+1443
19.	Nashville	+1441
20.	Miami	+1391
21.	Orlando	+1322
22.	Tampa	+1186
23.	San Antonio	+1170
24.	Indianapolis	+988
25.	Las Vegas	+733
26.	Cincinnati	+712
27.	Los Angeles	+711
28.	Philadelphia	+636
29.	St. Louis	+539
30.	Charleston	+526
31.	Pittsburgh	+511
32.	Sacramento	+503
33.	Colorado Springs	+490
34.	Huntsville	+424
35.	Minneapolis	+385
36.	Boise	+338
37.	Houston	+318
38.	Des Moines	+314
39.	Chicago	+314
40.	New Orleans	+304
41.	Omaha	+271
42.	Cleveland	+270
43.	Providence	+254
44.	Trenton	+177
45.	Buffalo	+173
46.	Memphis	+97
47.	Hartford	+79
48.	Albuquerque	-45
49.	Oklahoma City	-148
50.	Detroit	-409
51.	Milwaukee	-550

## NET TECH EMPLOYMENT 2021 est.

Rank	State	Employment
	United States	8,679,198
1.	New York City	526,086
2.	Washington DC	362,617
3.	Los Angeles	359,158
4.	San Jose	355,852
5.	San Francisco	336,445
6.	Dallas	313,447
7.	Seattle	283,492
8.	Boston	270,284
9.	Chicago	245,484
10.	Atlanta	217,170
11.	Phoenix	158,137
12.	Philadelphia	157,428
13.	Austin	154,813
14.	Minneapolis	151,115
15.	Denver	147,005
16.	Houston	134,436
17.	San Diego	117,579
18.	Miami	114,081
19.	Portland	109,516
20.	Baltimore	105,355
21.	Detroit	100,088
22.	Tampa	85,390
23.	Charlotte	83,116
24.	Kansas City	77,935
25.	St. Louis	74,602
26.	Raleigh	68,603
27.	Orlando	64,306
28.	Salt Lake City	63,492
29.	Pittsburgh	60,734
30.	Indianapolis	55,320
31.	Sacramento	53,335
32.	Cincinnati	52,208
33.	Cleveland	50,584
34.	Nashville	50,545
35.	San Antonio	49,801
36.	Milwaukee	45,590
37.	Hartford	34,914
38.	Providence	32,471
39.	Omaha	30,218
40.	Las Vegas	29,470
41.	Huntsville	27,197
42.	Colorado Springs	26,838
43.	Oklahoma City	24,310
44.	Des Moines	24,265
45.	Boise	23,758
46.	Buffalo	23,264
47.	Albuquerque	20,424
48.	Memphis	18,228
49.	Charleston	17,216
50.	Trenton	17,053
51.	New Orleans	15,387

## NET TECH EMPLOYMENT JOBS ADDED 2021 est.

Rank	State	% Change
	United States	+0.9%
1.	Salt Lake City	+2.6%
2.	Las Vegas	+2.1%
3.	Colorado Springs	+2.0%
4.	Miami	+1.8%
5.	San Antonio	+1.7%
6.	Denver	+1.7%
7.	Dallas	+1.7%
8.	Providence	+1.6%
9.	Oklahoma City	+1.6%
10.	Nashville	+1.6%
11.	Boise	+1.4%
12.	Charlotte	+1.4%
13.	Austin	+1.2%
14.	Raleigh	+1.0%
15.	New Orleans	+1.0%
16.	Orlando	+1.0%
17.	Seattle	+0.9%
18.	Indianapolis	+0.9%
19.	San Diego	+0.9%
20.	Huntsville	+0.7%
21.	Phoenix	+0.6%
22.	Omaha	+0.6%
23.	Cleveland	+0.5%
24.	Memphis	+0.5%
25.	Cincinnati	+0.5%
26.	Tampa	+0.5%
27.	Atlanta	+0.4%
28.	Washington DC	+0.3%
29.	San Francisco	+0.3%
30.	Des Moines	+0.2%
31.	Portland	+0.2%
32.	St. Louis	-0.2%
33.	Sacramento	-0.2%
34.	Houston	-0.2%
35.	Baltimore	-0.3%
36.	San Jose	-0.3%
37.	Pittsburgh	-0.4%
38.	Kansas City	-0.4%
39.	Boston	-0.5%
40.	Trenton	-0.5%
41.	Minneapolis	-0.6%
42.	Los Angeles	-0.6%
43.	Albuquerque	-0.6%
44.	New York City	-0.6%
45.	Milwaukee	-0.7%
46.	Detroit	-0.8%
47.	Buffalo	-0.8%
48.	Hartford	-1.0%
49.	Chicago	-1.0%
50.	Philadelphia	-1.3%
51.	Charleston	-1.6%

## NET TECH EMPLOYMENT JOBS ADDED 2022 proj.

Rank	State	% Change
	United States	+2.0%
1.	San Francisco	+3.8%
2.	Austin	+3.6%
3.	Denver	+3.5%
4.	Charlotte	+3.3%
5.	Charleston	+3.1%
6.	Salt Lake City	+3.0%
7.	Nashville	+2.9%
8.	Seattle	+2.8%
9.	Phoenix	+2.6%
10.	San Jose	+2.6%
11.	Las Vegas	+2.5%
12.	Dallas	+2.5%
13.	Kansas City	+2.4%
14.	San Antonio	+2.3%
15.	Baltimore	+2.1%
16.	Raleigh	+2.1%
17.	Orlando	+2.1%
18.	Portland	+2.0%
19.	New Orleans	+2.0%
20.	San Diego	+2.0%
21.	New York City	+1.9%
22.	Colorado Springs	+1.8%
23.	Indianapolis	+1.8%
24.	Huntsville	+1.6%
25.	Washington DC	+1.5%
26.	Atlanta	+1.5%
27.	Boise	+1.4%
28.	Tampa	+1.4%
29.	Cincinnati	+1.4%
30.	Des Moines	+1.3%
31.	Miami	+1.2%
32.	Boston	+1.1%
33.	Trenton	+1.0%
34.	Sacramento	+0.9%
35.	Omaha	+0.9%
36.	Pittsburgh	+0.8%
37.	Providence	+0.8%
38.	Buffalo	+0.7%
39.	St. Louis	+0.7%
40.	Cleveland	+0.5%
41.	Memphis	+0.5%
42.	Philadelphia	+0.4%
43.	Minneapolis	+0.3%
44.	Houston	+0.2%
45.	Hartford	+0.2%
46.	Los Angeles	+0.2%
47.	Chicago	+0.1%
48.	Albuquerque	-0.2%
49.	Detroit	-0.4%
50.	Oklahoma City	-0.6%
51.	Milwaukee	-1.2%

APPENDIX TABLES – B  
TECH WORKFORCE CHARACTERISTICS

# TECH WORKFORCE CHARACTERISTICS BY STATE

## APPENDIX B.1

Data covers core information technology occupations across 7 primary Bureau of Labor Statistics race and ethnicity groups | 1<sup>st</sup> quartile = highest level of diversity

	<b>American Indian or Alaska Native</b>	<b>Asian</b>	<b>Black or African American</b>	<b>Hispanic or Latino</b>	<b>Native Hawaiian or Other Pacific Islander</b>	<b>Two or More Races</b>	<b>White</b>	<b>Diversity Index Quartile</b>
United States	12,557	1,133,640	417,069	407,710	6,219	113,323	3,194,540	NA
Alabama	168	2,646	9,118	1,249	26	1,138	40,591	3rd quartile
Alaska	362	659	146	258	22	403	4,208	2nd quartile
Arizona	1,271	17,291	5,348	18,716	190	2,653	71,301	2nd quartile
Arkansas	104	2,693	2,346	1,237	38	600	19,991	3rd quartile
California	1,135	342,058	25,558	92,727	1,849	19,759	281,655	1st quartile
Colorado	376	15,233	4,432	12,006	141	3,331	110,690	3rd quartile
Connecticut	51	10,859	3,447	3,717	24	820	40,589	2nd quartile
Delaware	20	4,118	2,023	638	<10	346	9,834	1st quartile
District of Columbia	50	8,219	13,062	3,120	52	1,684	23,718	1st quartile
Florida	333	29,226	27,745	43,265	212	5,648	155,152	1st quartile
Georgia	210	32,159	40,145	7,472	92	3,297	93,490	1st quartile
Hawaii	<10	7,421	248	583	448	1,565	2,390	1st quartile
Idaho	57	1,207	199	1,123	16	439	16,600	4th quartile
Illinois	170	44,700	14,831	14,637	103	3,007	125,750	2nd quartile
Indiana	66	6,709	4,754	2,265	21	1,149	57,017	3rd quartile
Iowa	51	3,781	987	1,101	11	598	35,881	4th quartile
Kansas	138	4,341	2,162	2,029	20	930	33,280	3rd quartile
Kentucky	45	3,187	2,526	855	12	748	33,875	4th quartile
Louisiana	61	1,509	5,041	854	11	516	18,339	2nd quartile
Maine	27	685	224	221	<10	308	13,983	4th quartile
Maryland	182	25,108	29,155	6,133	82	3,694	81,686	1st quartile
Massachusetts	130	38,342	6,211	7,339	109	2,681	116,776	2nd quartile
Michigan	270	18,459	10,801	3,402	68	2,300	89,690	2nd quartile
Minnesota	226	18,719	3,616	2,488	43	1,968	82,532	3rd quartile
Mississippi	41	675	3,942	266	<10	345	10,891	2nd quartile
Missouri	176	9,814	7,585	2,399	54	1,934	74,611	3rd quartile
Montana	171	221	71	229	<10	247	8,981	4th quartile
Nebraska	87	3,026	1,281	1,407	14	663	27,373	3rd quartile
Nevada	122	5,257	1,939	3,536	105	1,016	15,599	1st quartile
New Hampshire	18	3,186	324	689	<10	362	23,318	4th quartile
New Jersey	107	55,441	10,824	12,026	80	2,167	79,519	1st quartile
New Mexico	577	1,231	500	6,376	<10	489	10,957	1st quartile
New York	380	74,211	22,764	24,103	228	5,437	171,452	1st quartile
North Carolina	485	25,381	25,000	6,481	81	3,007	115,563	2nd quartile
North Dakota	68	339	176	152	<10	175	6,139	4th quartile
Ohio	160	18,398	12,394	3,549	58	3,202	130,662	3rd quartile
Oklahoma	1,340	2,584	2,410	1,979	22	2,179	26,817	2nd quartile
Oregon	232	10,093	1,078	4,025	214	2,085	46,991	2nd quartile
Pennsylvania	112	25,838	11,407	5,791	57	2,856	136,313	3rd quartile
Rhode Island	17	2,374	631	1,002	<10	363	12,649	3rd quartile
South Carolina	165	3,264	8,907	1,573	12	894	35,902	2nd quartile
South Dakota	158	361	119	156	<10	204	8,526	4th quartile
Tennessee	92	6,504	8,829	1,969	25	1,558	58,348	3rd quartile
Texas	1,036	100,820	41,650	73,755	453	8,395	229,859	1st quartile
Utah	241	5,244	795	4,363	346	1,357	53,394	4th quartile
Vermont	<10	378	77	144	<10	151	7,578	4th quartile
Virginia	333	52,833	31,431	11,571	162	6,103	136,304	1st quartile
Washington	705	76,594	5,534	9,763	639	6,855	122,188	2nd quartile
West Virginia	<10	421	399	209	<10	252	11,978	4th quartile
Wisconsin	181	9,703	2,834	2,569	22	1,369	70,215	4th quartile
Wyoming	33	119	42	190	<10	74	3,394	4th quartile

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA



# TECH WORKFORCE CHARACTERISTICS BY STATE

## APPENDIX B.2

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

	<u>Black or African American</u>		<u>Hispanic or Latino</u>		<u>Women</u>	
	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce
United States	8%	12%	8%	16%	26%	49%
Alabama	17%	26%	2%	4%	27%	48%
Alaska	2%	3%	4%	8%	29%	48%
Arizona	5%	6%	16%	30%	25%	48%
Arkansas	9%	15%	5%	7%	27%	48%
California	3%	6%	12%	35%	25%	48%
Colorado	3%	4%	8%	19%	24%	48%
Connecticut	6%	11%	6%	15%	26%	50%
Delaware	12%	21%	4%	9%	25%	52%
District of Columbia	26%	32%	6%	10%	33%	56%
Florida	11%	16%	17%	25%	26%	50%
Georgia	23%	32%	4%	8%	29%	50%
Hawaii	2%	2%	5%	10%	28%	50%
Idaho	1%	2%	6%	12%	24%	47%
Illinois	7%	13%	7%	15%	26%	49%
Indiana	7%	9%	3%	7%	28%	48%
Iowa	2%	4%	3%	6%	28%	48%
Kansas	5%	7%	5%	11%	25%	49%
Kentucky	6%	9%	2%	4%	27%	49%
Louisiana	19%	30%	3%	5%	27%	50%
Maine	1%	2%	1%	2%	30%	50%
Maryland	20%	27%	4%	8%	28%	50%
Massachusetts	4%	8%	4%	11%	25%	51%
Michigan	9%	13%	3%	5%	26%	48%
Minnesota	3%	7%	2%	5%	27%	50%
Mississippi	24%	37%	2%	3%	30%	51%
Missouri	8%	12%	2%	4%	27%	49%
Montana	1%	1%	2%	4%	28%	49%
Nebraska	4%	5%	4%	10%	27%	49%
Nevada	7%	10%	13%	27%	26%	48%
New Hampshire	1%	2%	2%	5%	25%	50%
New Jersey	7%	14%	8%	18%	25%	50%
New Mexico	2%	3%	32%	45%	25%	49%
New York	8%	14%	8%	17%	25%	51%
North Carolina	14%	22%	4%	7%	27%	50%
North Dakota	2%	4%	2%	5%	25%	47%
Ohio	7%	12%	2%	4%	26%	49%
Oklahoma	6%	8%	5%	10%	26%	48%
Oregon	2%	2%	6%	12%	25%	48%
Pennsylvania	6%	10%	3%	7%	26%	49%
Rhode Island	4%	6%	6%	12%	27%	51%
South Carolina	18%	27%	3%	5%	30%	50%
South Dakota	1%	2%	2%	5%	26%	49%
Tennessee	11%	17%	3%	5%	29%	49%
Texas	9%	13%	16%	34%	25%	48%
Utah	1%	2%	7%	14%	21%	46%
Vermont	1%	2%	2%	3%	26%	51%
Virginia	13%	20%	5%	8%	26%	49%
Washington	2%	4%	4%	12%	24%	48%
West Virginia	3%	4%	2%	2%	27%	49%
Wisconsin	3%	6%	3%	6%	28%	49%
Wyoming	1%	2%	5%	10%	29%	47%

Sources: Emsi Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# TECH WORKFORCE CHARACTERISTICS BY METRO

## APPENDIX B.3

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

	<b>American Indian or Alaska Native</b>	<b>Asian</b>	<b>Black or African American</b>	<b>Hispanic or Latino</b>	<b>Native Hawaiian or Other Pacific Islander</b>	<b>Two or More Races</b>	<b>White</b>	<b>Diversity Index Quartile</b>
United States	12,557	1,133,640	417,069	407,710	6,219	113,323	3,194,540	NA
Albuquerque	318	733	296	3,427	0	269	6,150	2nd quartile
Atlanta	162	26,807	30,176	5,748	78	2,322	69,300	1st quartile
Austin	173	15,614	4,783	11,313	74	1,535	43,907	2nd quartile
Baltimore	93	10,950	13,867	2,513	38	1,675	42,534	2nd quartile
Boise	35	799	111	693	12	268	9,847	4th quartile
Boston	112	34,018	5,153	5,966	98	2,182	100,340	3rd quartile
Buffalo	24	1,411	880	518	0	214	10,081	4th quartile
Charleston	23	564	1,856	348	0	207	8,530	3rd quartile
Charlotte	143	9,843	9,554	2,320	31	856	36,278	2nd quartile
Chicago	134	36,915	11,524	12,213	88	2,096	90,415	2nd quartile
Cincinnati	33	3,939	2,463	707	13	542	27,829	4th quartile
Cleveland	32	3,776	2,788	826	0	558	25,789	4th quartile
Colorado Springs	59	1,484	745	1,546	29	540	14,805	4th quartile
Dallas	457	47,780	18,760	21,351	178	2,944	87,610	1st quartile
Denver	236	10,436	3,018	7,906	87	2,084	69,487	3rd quartile
Des Moines	21	2,147	479	537	0	249	15,285	4th quartile
Detroit	134	13,034	7,676	1,852	30	1,175	46,647	2nd quartile
Hartford	18	4,596	1,538	1,411	10	330	16,813	3rd quartile
Houston	164	20,638	8,948	13,799	78	1,391	40,624	1st quartile
Huntsville	81	846	2,452	444	14	413	14,590	4th quartile
Indianapolis	40	4,040	3,011	1,100	16	573	28,298	4th quartile
Kansas City	105	5,517	3,395	1,937	37	962	37,367	3rd quartile
Las Vegas	73	4,003	1,615	2,633	83	741	10,320	1st quartile
Los Angeles	271	77,462	8,135	33,975	429	5,081	75,435	1st quartile
Memphis	13	1,193	2,941	326	0	232	7,370	2nd quartile
Miami	70	7,667	8,062	18,225	61	1,322	31,076	1st quartile
Milwaukee	54	3,322	1,546	1,035	0	394	20,483	4th quartile
Minneapolis	187	16,559	3,156	2,095	40	1,577	66,806	3rd quartile
Nashville	44	3,267	3,824	993	14	652	25,675	3rd quartile
New Orleans	18	558	1,799	389	0	177	6,104	3rd quartile
New York City	348	104,192	24,601	28,475	264	5,070	161,207	1st quartile
Oklahoma City	538	1,376	1,250	1,009	11	942	12,441	3rd quartile
Omaha	55	1,979	958	903	0	412	17,485	4th quartile
Orlando	53	4,812	4,036	6,030	33	753	22,899	2nd quartile
Philadelphia	75	19,555	9,040	3,755	37	1,628	67,528	3rd quartile
Phoenix	891	14,829	4,418	14,080	154	2,031	56,501	2nd quartile
Pittsburgh	21	4,350	1,844	667	12	518	30,275	4th quartile
Portland	176	9,341	963	2,937	169	1,636	36,219	3rd quartile
Providence	19	2,495	771	1,147	10	398	15,232	3rd quartile
Raleigh	103	5,999	5,242	1,450	19	656	26,930	2nd quartile
Sacramento	103	12,119	1,944	5,668	152	1,345	17,348	1st quartile
Salt Lake City	130	3,664	480	2,688	211	766	30,151	4th quartile
San Antonio	66	3,176	2,679	10,141	43	626	14,662	1st quartile
San Diego	133	21,386	2,460	9,051	178	1,939	28,391	1st quartile
San Francisco	231	87,342	5,598	14,320	477	4,837	66,777	1st quartile
San Jose	170	102,550	2,978	9,318	327	2,884	42,951	2nd quartile
Seattle	517	71,647	4,794	7,965	535	5,562	98,909	2nd quartile
St. Louis	64	5,157	4,664	1,162	21	808	37,516	3rd quartile
Tampa	65	6,577	4,887	6,136	38	946	31,268	2nd quartile
Trenton	0	4,055	1,269	854	0	249	6,623	1st quartile
Washington DC	325	56,870	42,326	13,675	211	6,626	129,519	1st quartile

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# TECH WORKFORCE CHARACTERISTICS BY METRO

## APPENDIX B.4

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

	<u>Black or African American</u>		<u>Hispanic or Latino</u>		<u>Women</u>	
	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce	% of Tech Workforce	% of Overall Workforce
United States	8%	12%	8%	16%	26%	49%
Albuquerque	3%	3%	31%	45%	25%	49%
Atlanta	22%	33%	4%	8%	28%	50%
Austin	6%	10%	15%	30%	24%	48%
Baltimore	19%	29%	4%	7%	27%	50%
Boise	1%	2%	6%	13%	24%	47%
Boston	3%	8%	4%	10%	24%	50%
Buffalo	7%	12%	4%	7%	25%	50%
Charleston	16%	26%	3%	5%	31%	50%
Charlotte	16%	24%	4%	7%	27%	48%
Chicago	8%	14%	8%	18%	26%	50%
Cincinnati	7%	12%	2%	4%	26%	49%
Cleveland	8%	15%	2%	5%	26%	50%
Colorado Springs	4%	5%	8%	17%	22%	50%
Dallas	10%	16%	12%	27%	25%	48%
Denver	3%	5%	8%	19%	25%	48%
Des Moines	3%	5%	3%	6%	28%	49%
Detroit	11%	18%	3%	5%	26%	48%
Hartford	6%	12%	6%	14%	27%	50%
Houston	10%	16%	16%	33%	26%	47%
Huntsville	13%	23%	2%	4%	25%	46%
Indianapolis	8%	13%	3%	6%	27%	49%
Kansas City	7%	11%	4%	8%	27%	49%
Las Vegas	8%	12%	14%	28%	25%	49%
Los Angeles	4%	7%	17%	38%	25%	49%
Memphis	24%	38%	3%	5%	31%	50%
Miami	12%	18%	27%	38%	26%	49%
Milwaukee	6%	12%	4%	9%	28%	51%
Minneapolis	3%	8%	2%	5%	27%	50%
Nashville	11%	16%	3%	6%	29%	49%
New Orleans	20%	30%	4%	7%	27%	51%
New York City	8%	15%	9%	20%	24%	51%
Oklahoma City	7%	10%	6%	11%	28%	49%
Omaha	4%	7%	4%	10%	27%	50%
Orlando	10%	16%	16%	26%	26%	49%
Philadelphia	9%	17%	4%	9%	26%	51%
Phoenix	5%	6%	15%	29%	25%	48%
Pittsburgh	5%	8%	2%	3%	25%	49%
Portland	2%	3%	6%	12%	25%	48%
Providence	4%	6%	6%	11%	27%	51%
Raleigh	13%	22%	4%	8%	27%	49%
Sacramento	5%	7%	15%	27%	29%	49%
Salt Lake City	1%	2%	7%	14%	22%	45%
San Antonio	9%	9%	32%	48%	26%	50%
San Diego	4%	6%	14%	34%	25%	48%
San Francisco	3%	7%	8%	24%	26%	48%
San Jose	2%	4%	6%	23%	22%	44%
Seattle	3%	5%	4%	10%	24%	47%
St. Louis	9%	16%	2%	4%	27%	50%
Tampa	10%	14%	12%	20%	27%	50%
Trenton	10%	18%	7%	14%	26%	50%
Washington DC	17%	24%	5%	12%	27%	51%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

	<u>Black or African American</u>		<u>Hispanic or Latino</u>		<u>Women</u>	
	Count	% of Occ.	Count	% of Occ.	Count	% of Occ.
CIOs and IT Managers	28,537	6%	32,873	7%	138,222	30%
Systems Analysts and Engineers	56,683	10%	44,378	7%	218,721	37%
Cybersecurity	21,183	15%	12,419	9%	28,912	20%
Information Research and Computer Scientists	3,076	9%	1,912	6%	9,033	27%
Network Support Specialists	22,743	12%	19,353	10%	52,419	28%
IT Support Specialists	73,337	11%	71,083	11%	181,838	28%
Network Architects	15,518	10%	13,199	8%	22,221	14%
Network and Systems Administrators	29,504	9%	31,019	9%	67,733	20%
Database Administrators and Architects	10,725	8%	9,199	7%	49,562	37%
Computer Programmers	9,083	5%	11,138	6%	42,297	22%
Software Developers and Software QA	64,707	4%	77,304	5%	322,246	21%
Web Developers and Digital Interface Designers	11,087	6%	19,010	10%	66,604	34%
IT Proj. Mgt., Emerging Tech, Other	51,960	13%	40,327	10%	118,384	30%
Data Scientists	3,646	6%	4,342	7%	28,796	46%
Computer Hardware Engineers	4,458	7%	4,912	7%	10,395	15%
Computer, ATM, and Office Machine Repairers	10,823	10%	15,240	15%	10,433	10%
Total	417,069	8%	407,710	8%	1,367,815	26%

	<u>19-34 Age Range</u>		<u>35-54 Age Range</u>		<u>55+ Age Range</u>	
	Count	% of Occ.	Count	% of Occ.	Count	% of Occ.
CIOs and IT Managers	83,691	18%	291,565	62%	93,056	20%
Systems Analysts and Engineers	180,017	30%	296,481	50%	116,336	20%
Cybersecurity	43,153	30%	75,053	52%	24,930	17%
Information Research and Computer Scientists	12,515	38%	14,146	43%	6,307	19%
Network Support Specialists	65,720	35%	88,868	48%	31,050	17%
IT Support Specialists	235,870	36%	306,942	47%	106,427	16%
Network Architects	42,031	26%	94,911	59%	23,457	15%
Network and Systems Administrators	103,074	31%	181,938	54%	51,214	15%
Database Administrators and Architects	34,438	26%	73,010	54%	26,924	20%
Computer Programmers	55,836	29%	95,645	50%	37,625	20%
Software Developers and Software QA	574,240	37%	782,845	50%	207,464	13%
Web Developers and Digital Interface Designers	87,954	45%	89,095	46%	17,252	9%
IT Proj. Mgt., Emerging Tech, Other	120,091	31%	199,940	51%	70,230	18%
Data Scientists	26,425	42%	27,384	43%	9,303	15%
Computer Hardware Engineers	19,621	29%	35,641	53%	11,804	18%
Computer, ATM, and Office Machine Repairers	38,296	37%	46,968	45%	19,099	18%
Total	1,722,972	33%	2,700,433	51%	852,477	16%

	<u>Black or African American</u>		<u>Hispanic or Latino</u>		<u>Women</u>	
	Count	% of Occ.	Count	% of Occ.	Count	% of Occ.
United States	440,777	8%	560,281	10%	1,915,678	33%
Alabama	8,013	15%	1,608	3%	18,300	35%
Alaska	242	4%	322	5%	1,953	33%
Arizona	6,390	5%	22,017	18%	39,284	32%
Arkansas	1,909	9%	1,292	6%	6,997	34%
California	37,406	4%	147,072	14%	352,811	33%
Colorado	5,356	3%	14,849	9%	54,224	32%
Connecticut	3,117	6%	4,554	8%	18,202	33%
Delaware	1,590	14%	633	6%	3,666	33%
District of Columbia	9,725	28%	2,322	7%	12,814	37%
Florida	30,446	10%	58,885	20%	99,331	34%
Georgia	41,829	23%	10,220	6%	67,217	36%
Hawaii	310	3%	895	9%	3,451	34%
Idaho	263	1%	1,835	7%	7,001	28%
Illinois	14,392	7%	18,757	10%	64,815	33%
Indiana	4,328	6%	2,431	4%	22,122	33%
Iowa	919	2%	1,190	3%	13,362	36%
Kansas	1,924	5%	2,164	6%	12,509	33%
Kentucky	2,508	7%	1,049	3%	13,605	35%
Louisiana	5,273	18%	1,172	4%	9,390	33%
Maine	157	1%	247	2%	4,854	36%
Maryland	25,750	19%	6,594	5%	43,430	32%
Massachusetts	7,453	3%	12,429	5%	73,514	33%
Michigan	8,673	8%	4,559	4%	35,603	32%
Minnesota	4,194	4%	3,458	3%	39,005	34%
Mississippi	3,758	23%	421	3%	5,869	36%
Missouri	7,975	8%	3,467	3%	36,132	36%
Montana	69	1%	298	3%	3,350	34%
Nebraska	1,120	4%	1,516	5%	10,391	34%
Nevada	1,656	6%	3,753	14%	8,578	33%
New Hampshire	561	1%	1,590	4%	13,555	33%
New Jersey	12,366	8%	16,544	10%	51,399	32%
New Mexico	582	3%	7,132	38%	6,291	33%
New York	27,250	8%	32,108	10%	117,476	36%
North Carolina	25,959	15%	8,046	5%	58,792	34%
North Dakota	225	3%	184	2%	2,861	35%
Ohio	10,220	7%	4,146	3%	46,550	32%
Oklahoma	1,902	6%	1,912	6%	9,611	32%
Oregon	2,085	2%	7,540	8%	27,159	29%
Pennsylvania	10,027	6%	6,362	4%	57,702	33%
Rhode Island	524	3%	1,248	7%	5,282	32%
South Carolina	8,468	17%	2,067	4%	18,968	38%
South Dakota	180	2%	182	2%	3,382	38%
Tennessee	7,030	11%	2,506	4%	21,761	34%
Texas	50,281	9%	99,738	18%	175,867	32%
Utah	926	1%	6,162	8%	23,214	29%
Vermont	132	1%	254	2%	3,473	29%
Virginia	34,518	14%	14,937	6%	82,648	33%
Washington	7,106	3%	14,012	6%	72,931	31%
West Virginia	360	3%	179	2%	3,212	31%
Wisconsin	3,298	4%	3,226	4%	30,808	36%
Wyoming	35	1%	198	6%	956	28%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# APPENDIX TABLES – C

## TECH EMPLOYMENT OUTLOOK

<u>Tech Job Category</u>	<u>2022 Est.</u>	<u>2032 Proj</u>	<u>Est. Annual Separations</u>	<u>Est. Annual Turnover Rate</u>	<u>Estimated Replacement Jobs Count</u>	<u>Est. Annual Replacement Jobs Count</u>	<u>Est. Annual Replacement Rate</u>
CIOs and IT Managers	477,693	526,272	171,581	36%	367,172	36,717	7%
Systems Analysts and Engineers	602,522	648,242	218,299	36%	432,433	43,243	7%
Cybersecurity	149,035	187,008	56,352	38%	119,388	11,939	7%
Information Research and Computer Scientists	34,156	40,450	10,578	31%	25,494	2,549	7%
Network Support Specialists	188,529	202,608	70,441	37%	140,807	14,081	7%
IT Support Specialists	662,336	723,586	278,899	42%	499,462	49,946	7%
Network Architects	163,177	172,965	57,050	35%	99,306	9,931	6%
Network and Systems Administrators	340,821	361,584	121,081	36%	224,986	22,499	6%
Database Administrators and Architects	136,874	150,507	52,198	38%	103,579	10,358	7%
Computer Programmers	189,500	179,117	77,419	41%	122,282	12,228	7%
Software Developers and Software QA	1,626,995	1,997,848	578,479	35%	1,307,830	130,783	7%
Web Developers and Digital Interface Designers	200,636	228,581	68,989	35%	154,806	15,481	7%
IT Proj. Mgt., Emerging Tech, Other	399,532	441,998	149,561	38%	303,790	30,379	7%
Data Scientists	65,874	83,373	26,588	40%	60,287	6,029	8%
Computer Hardware Engineers	67,882	70,041	21,142	31%	45,691	4,569	7%
Computer, ATM, and Office Machine Repairers	104,294	101,433	52,225	50%	108,907	10,891	11%
Total	5,409,857	6,115,614	2,010,882	37%	4,116,219	411,622	7%



# TECH EMPLOYMENT OUTLOOK BY STATE: 2022-2032

## APPENDIX C.2

Note: data covers core information technology occupations.

	<u>2022</u>	<u>2032 Proj.</u>	<u>Proj. Numeric Change 2022-32</u>	<u>Proj. Percent Change 2022-32</u>	<u>Proj. Annual Replacement Count 2022-32</u>	<u>Proj. Annual Replacement Percent 2022-32</u>	<u>Proj. Turnover Rate</u>
United States	5,409,857	6,115,614	705,757	13%	411,622	4,116,219	37%
Alabama	56,083	61,832	5,749	10%	4,217	42,169	37%
Alaska	6,114	6,577	464	8%	448	4,482	38%
Arizona	120,797	147,947	27,150	22%	9,552	95,517	41%
Arkansas	27,744	31,512	3,768	14%	2,122	21,222	39%
California	784,140	898,314	114,174	15%	60,186	601,860	36%
Colorado	151,396	184,546	33,150	22%	11,886	118,863	37%
Connecticut	59,610	61,807	2,197	4%	4,328	43,284	32%
Delaware	17,091	17,543	452	3%	1,232	12,316	35%
District of Columbia	51,271	60,688	9,417	18%	3,983	39,831	35%
Florida	270,081	316,569	46,488	17%	20,965	209,654	38%
Georgia	181,644	206,580	24,936	14%	13,921	139,213	43%
Hawaii	12,745	13,949	1,204	9%	944	9,435	31%
Idaho	20,386	23,683	3,297	16%	1,587	15,869	35%
Illinois	205,435	219,692	14,258	7%	15,194	151,939	38%
Indiana	73,379	79,864	6,486	9%	5,474	54,738	42%
Iowa	43,075	47,017	3,942	9%	3,217	32,169	37%
Kansas	43,400	45,717	2,317	5%	3,176	31,759	37%
Kentucky	42,094	46,663	4,568	11%	3,195	31,953	44%
Louisiana	26,958	31,472	4,514	17%	2,098	20,982	38%
Maine	15,813	17,355	1,543	10%	1,188	11,881	32%
Maryland	149,248	170,829	21,581	14%	11,290	112,905	38%
Massachusetts	174,761	192,288	17,527	10%	13,123	131,228	33%
Michigan	126,457	134,972	8,515	7%	9,350	93,502	37%
Minnesota	110,788	117,381	6,593	6%	8,150	81,503	34%
Mississippi	16,576	18,720	2,144	13%	1,274	12,736	40%
Missouri	98,659	109,148	10,489	11%	7,416	74,165	35%
Montana	10,174	11,232	1,057	10%	767	7,671	38%
Nebraska	34,496	37,397	2,901	8%	2,567	25,667	32%
Nevada	28,448	34,319	5,871	21%	2,267	22,674	44%
New Hampshire	28,576	32,173	3,597	13%	2,175	21,747	30%
New Jersey	162,457	178,391	15,935	10%	12,116	121,163	38%
New Mexico	20,510	22,851	2,340	11%	1,532	15,324	35%
New York	304,881	351,559	46,679	15%	23,338	233,377	38%
North Carolina	181,227	203,418	22,191	12%	13,851	138,514	48%
North Dakota	7,135	7,564	429	6%	525	5,250	32%
Ohio	170,854	183,645	12,791	7%	12,660	126,596	37%
Oklahoma	37,682	39,532	1,849	5%	2,779	27,790	38%
Oregon	66,412	77,172	10,760	16%	5,123	51,225	35%
Pennsylvania	185,553	205,587	20,034	11%	13,959	139,586	32%
Rhode Island	17,375	19,394	2,019	12%	1,304	13,037	35%
South Carolina	52,236	59,705	7,469	14%	4,007	40,070	41%
South Dakota	9,731	10,611	880	9%	719	7,193	30%
Tennessee	79,704	90,273	10,569	13%	6,121	61,211	43%
Texas	471,418	554,235	82,817	18%	36,623	366,229	39%
Utah	68,470	83,536	15,066	22%	5,442	54,416	38%
Vermont	8,487	9,434	946	11%	636	6,356	33%
Virginia	244,194	272,775	28,581	12%	18,402	184,022	36%
Washington	228,282	253,517	25,235	11%	17,339	173,392	32%
West Virginia	13,620	15,590	1,970	14%	1,043	10,427	34%
Wisconsin	88,277	94,747	6,470	7%	6,518	65,183	34%
Wyoming	3,917	4,293	377	10%	293	2,925	40%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# TECH EMPLOYMENT OUTLOOK BY METRO: 2022-2032

## APPENDIX C.3

Note: data covers core information technology occupations.

	<u>2022</u>	<u>2032 Proj.</u>	<u>Proj. Numeric Change 2022-32</u>	<u>Proj. Percent Change 2022-32</u>	<u>Proj. Annual Replacement Count 2022-32</u>	<u>Proj. Annual Replacement Percent 2022-32</u>	<u>Proj. Turnover Rate</u>
United States	5,409,857	6,115,614	705,757	13%	411,622	4,116,219	37%
Albuquerque	11,329	12,172	843	7%	833	8,328	31%
Atlanta	137,620	152,959	15,339	11%	10,408	104,080	43%
Austin	81,058	99,800	18,742	23%	6,456	64,557	34%
Baltimore	73,236	83,617	10,381	14%	5,527	55,269	36%
Boise	12,145	13,785	1,641	14%	931	9,315	34%
Boston	150,665	165,807	15,142	10%	11,307	113,066	32%
Buffalo	13,204	14,071	867	7%	969	9,692	36%
Charleston	11,852	13,318	1,466	12%	899	8,987	35%
Charlotte	60,753	68,035	7,282	12%	4,641	46,407	52%
Chicago	154,287	160,821	6,534	4%	11,273	112,732	38%
Cincinnati	36,033	38,660	2,627	7%	2,656	26,556	37%
Cleveland	34,047	35,647	1,600	5%	2,488	24,885	35%
Colorado Springs	19,739	23,214	3,474	18%	1,514	15,141	36%
Dallas	184,932	215,953	31,021	17%	14,307	143,066	41%
Denver	96,730	118,627	21,897	23%	7,622	76,217	38%
Des Moines	19,021	20,638	1,617	9%	1,419	14,193	36%
Detroit	70,643	71,530	886	1%	5,072	50,716	35%
Hartford	24,861	26,406	1,546	6%	1,824	18,241	29%
Houston	86,569	92,290	5,721	7%	6,366	63,664	38%
Huntsville	19,322	21,613	2,291	12%	1,454	14,540	31%
Indianapolis	37,811	41,157	3,346	9%	2,819	28,191	43%
Kansas City	50,231	54,765	4,534	9%	3,733	37,329	36%
Las Vegas	19,939	23,338	3,399	17%	1,565	15,648	44%
Los Angeles	202,496	216,155	13,659	7%	14,963	149,626	40%
Memphis	12,211	12,738	527	4%	896	8,964	49%
Miami	67,945	76,120	8,175	12%	5,164	51,641	38%
Milwaukee	26,769	26,440	-328	-1%	1,880	18,795	35%
Minneapolis	91,184	95,257	4,072	4%	6,660	66,599	34%
Nashville	35,564	40,413	4,849	14%	2,736	27,356	45%
New Orleans	9,225	10,501	1,275	14%	706	7,061	39%
New York City	329,772	371,457	41,684	13%	24,934	249,342	38%
Oklahoma City	17,614	17,803	190	1%	1,275	12,752	37%
Omaha	22,030	22,917	888	4%	1,599	15,990	32%
Orlando	39,689	45,677	5,988	15%	3,032	30,321	37%
Philadelphia	102,391	107,559	5,169	5%	7,471	74,713	31%
Phoenix	96,100	117,540	21,440	22%	7,596	75,964	42%
Pittsburgh	38,105	40,902	2,796	7%	2,819	28,186	30%
Portland	52,697	60,429	7,732	15%	4,036	40,362	34%
Providence	20,294	21,785	1,491	7%	1,497	14,966	34%
Raleigh	41,530	46,123	4,593	11%	3,140	31,402	44%
Sacramento	39,191	42,723	3,533	9%	2,952	29,515	36%
Salt Lake City	39,444	46,951	7,507	19%	3,087	30,870	38%
San Antonio	32,236	36,722	4,486	14%	2,464	24,638	38%
San Diego	65,038	73,879	8,841	14%	4,953	49,532	34%
San Francisco	185,748	219,487	33,739	18%	14,523	145,229	34%
San Jose	166,384	194,790	28,406	17%	12,898	128,985	29%
Seattle	194,950	215,344	20,394	10%	14,776	147,762	31%
St. Louis	49,926	52,385	2,459	5%	3,659	36,587	35%
Tampa	51,018	56,992	5,974	12%	3,847	38,474	38%
Trenton	13,298	14,766	1,468	11%	997	9,968	35%
Washington DC	254,217	282,566	28,348	11%	19,057	190,572	36%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# APPENDIX TABLES – D

## TECH WAGES PERCENTILES

	<b>10<sup>th</sup> Percentile</b>	<b>25<sup>th</sup> Percentile</b>	<b>50<sup>th</sup> (median) Percentile</b>	<b>75<sup>th</sup> Percentile</b>	<b>90<sup>th</sup> Percentile</b>	<b>% Greater than Overall Median Wage</b>
United States	\$47,330	\$65,022	\$94,058	\$129,653	\$165,746	125%
Alabama	\$42,518	\$57,900	\$82,811	\$114,108	\$145,933	129%
Alaska	\$47,232	\$62,197	\$85,061	\$107,015	\$132,015	71%
Arizona	\$41,374	\$59,624	\$86,201	\$116,749	\$146,913	115%
Arkansas	\$36,749	\$50,486	\$71,712	\$96,879	\$124,717	110%
California	\$56,780	\$79,775	\$116,729	\$159,026	\$200,328	152%
Colorado	\$53,640	\$71,395	\$99,300	\$131,694	\$163,862	115%
Connecticut	\$52,401	\$70,736	\$95,971	\$125,152	\$158,673	90%
Delaware	\$53,681	\$74,083	\$99,067	\$131,061	\$162,469	132%
District of Columbia	\$67,484	\$86,834	\$117,329	\$147,263	\$173,047	50%
Florida	\$39,228	\$53,528	\$79,397	\$112,081	\$145,662	113%
Georgia	\$45,873	\$63,499	\$92,001	\$121,585	\$151,421	139%
Hawaii	\$42,283	\$58,281	\$81,625	\$106,163	\$131,014	77%
Idaho	\$35,082	\$49,210	\$72,775	\$103,787	\$135,371	99%
Illinois	\$48,414	\$65,670	\$93,724	\$124,460	\$154,880	116%
Indiana	\$39,982	\$54,714	\$76,254	\$101,798	\$129,383	99%
Iowa	\$44,245	\$59,194	\$81,898	\$107,742	\$133,152	107%
Kansas	\$41,077	\$53,689	\$74,262	\$103,454	\$132,469	94%
Kentucky	\$38,684	\$51,236	\$71,743	\$97,729	\$125,421	95%
Louisiana	\$35,926	\$48,940	\$69,617	\$95,483	\$122,725	90%
Maine	\$43,383	\$57,519	\$78,318	\$105,394	\$133,064	95%
Maryland	\$53,868	\$73,457	\$105,280	\$138,125	\$171,557	119%
Massachusetts	\$57,771	\$76,474	\$105,721	\$139,999	\$173,148	99%
Michigan	\$41,174	\$56,768	\$81,122	\$108,470	\$135,599	99%
Minnesota	\$52,635	\$68,165	\$94,715	\$123,581	\$153,566	106%
Mississippi	\$36,678	\$47,695	\$66,397	\$89,910	\$118,150	103%
Missouri	\$41,414	\$56,113	\$80,852	\$108,274	\$136,567	110%
Montana	\$35,102	\$48,809	\$67,293	\$90,511	\$121,780	81%
Nebraska	\$45,778	\$58,800	\$81,095	\$106,523	\$130,027	106%
Nevada	\$37,371	\$52,399	\$75,964	\$103,665	\$135,711	97%
New Hampshire	\$48,857	\$66,297	\$94,358	\$127,318	\$158,631	114%
New Jersey	\$55,946	\$74,968	\$104,692	\$141,016	\$177,558	119%
New Mexico	\$37,084	\$51,283	\$76,851	\$106,682	\$138,266	109%
New York	\$50,113	\$68,289	\$98,956	\$140,993	\$182,713	103%
North Carolina	\$45,789	\$62,129	\$89,449	\$120,871	\$151,602	132%
North Dakota	\$39,653	\$52,607	\$71,429	\$93,741	\$116,745	64%
Ohio	\$44,642	\$59,258	\$83,248	\$110,991	\$140,464	107%
Oklahoma	\$38,748	\$51,570	\$73,140	\$100,433	\$129,356	99%
Oregon	\$46,275	\$63,923	\$90,639	\$120,062	\$148,952	110%
Pennsylvania	\$46,065	\$61,472	\$85,900	\$115,954	\$146,794	105%
Rhode Island	\$50,234	\$66,519	\$90,765	\$119,501	\$147,319	93%
South Carolina	\$37,253	\$50,506	\$73,885	\$101,957	\$131,909	105%
South Dakota	\$38,733	\$51,275	\$67,233	\$89,728	\$114,877	84%
Tennessee	\$39,533	\$52,986	\$75,065	\$102,775	\$131,844	100%
Texas	\$44,098	\$63,182	\$91,885	\$124,556	\$156,944	133%
Utah	\$38,927	\$55,537	\$82,534	\$112,915	\$143,700	109%
Vermont	\$43,199	\$54,318	\$76,943	\$107,618	\$137,833	81%
Virginia	\$57,045	\$75,073	\$105,412	\$139,861	\$173,727	136%
Washington	\$64,457	\$87,501	\$124,653	\$156,257	\$187,392	147%
West Virginia	\$34,950	\$47,869	\$69,467	\$102,036	\$135,222	97%
Wisconsin	\$45,299	\$58,643	\$80,041	\$105,867	\$132,189	95%
Wyoming	\$37,791	\$46,730	\$64,075	\$84,508	\$113,361	51%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

	<b>10<sup>th</sup> Percentile</b>	<b>25<sup>th</sup> Percentile</b>	<b>50<sup>th</sup> (median) Percentile</b>	<b>75<sup>th</sup> Percentile</b>	<b>90<sup>th</sup> Percentile</b>	<b>% Greater than Overall Median Wage</b>
United States	\$47,330	\$65,022	\$94,058	\$129,653	\$165,746	125%
Albuquerque	\$38,292	\$52,091	\$78,534	\$109,569	\$140,734	106%
Atlanta	\$47,937	\$66,762	\$95,834	\$126,440	\$157,013	128%
Austin	\$46,526	\$64,287	\$90,564	\$123,311	\$156,317	108%
Baltimore	\$54,303	\$73,283	\$105,238	\$140,631	\$175,896	120%
Boise	\$34,939	\$49,781	\$74,357	\$106,503	\$135,285	97%
Boston	\$59,008	\$78,500	\$108,762	\$144,204	\$178,940	96%
Buffalo	\$41,591	\$56,061	\$77,636	\$104,056	\$133,499	85%
Charleston	\$41,068	\$57,149	\$80,967	\$108,908	\$133,899	104%
Charlotte	\$46,826	\$64,107	\$93,212	\$125,549	\$157,270	126%
Chicago	\$48,634	\$66,487	\$95,250	\$127,529	\$159,584	112%
Cincinnati	\$42,610	\$57,667	\$82,563	\$113,533	\$147,908	99%
Cleveland	\$45,623	\$60,454	\$83,021	\$111,516	\$143,749	96%
Colorado Springs	\$52,558	\$72,110	\$99,105	\$128,618	\$157,929	137%
Dallas	\$47,673	\$68,624	\$97,454	\$129,236	\$160,298	129%
Denver	\$55,249	\$72,798	\$101,327	\$133,561	\$166,086	105%
Des Moines	\$48,501	\$65,146	\$88,490	\$112,229	\$134,982	101%
Detroit	\$42,066	\$61,565	\$87,469	\$116,565	\$142,672	99%
Hartford	\$51,233	\$68,676	\$92,202	\$119,928	\$151,712	81%
Houston	\$43,592	\$64,181	\$96,162	\$128,790	\$164,153	129%
Huntsville	\$52,375	\$70,593	\$98,369	\$130,695	\$159,789	131%
Indianapolis	\$43,416	\$59,664	\$81,165	\$107,462	\$133,798	98%
Kansas City	\$45,926	\$59,863	\$82,819	\$110,948	\$138,552	94%
Las Vegas	\$37,516	\$52,259	\$75,777	\$103,008	\$134,919	102%
Los Angeles	\$49,058	\$67,469	\$100,844	\$139,588	\$175,780	126%
Memphis	\$38,769	\$50,893	\$71,476	\$98,225	\$125,662	93%
Miami	\$38,134	\$54,053	\$79,683	\$115,953	\$155,402	109%
Milwaukee	\$46,961	\$60,343	\$83,458	\$111,542	\$139,143	93%
Minneapolis	\$54,066	\$70,367	\$97,754	\$126,708	\$156,932	98%
Nashville	\$41,497	\$55,645	\$78,313	\$107,364	\$136,695	91%
New Orleans	\$36,360	\$51,751	\$75,276	\$102,544	\$130,839	97%
New York City	\$55,080	\$76,087	\$109,333	\$152,553	\$196,685	113%
Oklahoma City	\$41,691	\$54,108	\$75,165	\$101,312	\$131,231	92%
Omaha	\$46,564	\$62,287	\$85,116	\$110,657	\$133,758	103%
Orlando	\$38,728	\$55,037	\$82,639	\$114,312	\$145,779	127%
Philadelphia	\$51,222	\$69,037	\$95,734	\$127,868	\$160,966	108%
Phoenix	\$41,689	\$60,030	\$87,783	\$119,343	\$150,050	113%
Pittsburgh	\$45,610	\$59,975	\$82,820	\$110,615	\$138,570	92%
Portland	\$49,526	\$68,673	\$95,755	\$126,253	\$155,452	103%
Providence	\$48,485	\$64,941	\$89,514	\$118,882	\$147,513	98%
Raleigh	\$52,034	\$70,167	\$95,688	\$125,446	\$155,214	123%
Sacramento	\$54,270	\$73,105	\$98,154	\$123,513	\$161,049	106%
Salt Lake City	\$40,921	\$58,590	\$85,208	\$117,006	\$148,469	101%
San Antonio	\$42,589	\$59,783	\$85,103	\$115,740	\$146,113	125%
San Diego	\$54,850	\$75,275	\$105,017	\$139,081	\$169,738	122%
San Francisco	\$68,381	\$94,497	\$132,874	\$174,757	\$217,477	122%
San Jose	\$80,640	\$108,467	\$148,730	\$189,358	\$228,223	119%
Seattle	\$69,144	\$94,315	\$130,639	\$159,860	\$190,113	128%
St. Louis	\$43,076	\$59,337	\$84,926	\$113,309	\$143,089	103%
Tampa	\$40,781	\$56,017	\$83,262	\$115,532	\$145,544	116%
Trenton	\$56,478	\$71,012	\$99,473	\$133,476	\$166,453	84%
Washington DC	\$61,619	\$81,282	\$113,295	\$147,656	\$179,624	92%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

## APPENDIX TABLES – E

### INDUSTRY SECTORS

# TECH INDUSTRY SECTOR SUMMARY BY STATE

APPENDIX E.1

Prior year industry definition

	<b><u>Tech Manufacturing</u></b>	<b><u>Telecom, Data and Internet Services</u></b>	<b><u>Software Products</u></b>	<b><u>IT Services and Custom Software Services</u></b>	<b><u>Total</u></b>	<b><u>Projected % change 2022</u></b>
United States	1,084,068	1,398,645	522,323	2,763,328	5,768,365	2.4%
Alabama	7,971	10,892	2,681	30,807	52,351	1.4%
Alaska	118	3,614	50	2,084	5,866	1.3%
Arizona	34,515	29,476	7,605	50,893	122,489	2.8%
Arkansas	1,780	7,212	396	11,374	20,763	3.0%
California	296,800	249,271	105,480	410,974	1,062,525	2.6%
Colorado	23,178	44,467	17,197	84,106	168,948	3.4%
Connecticut	11,147	11,693	4,388	27,364	54,592	-0.4%
Delaware	2,493	2,436	263	5,864	11,055	-0.4%
District of Columbia	107	5,657	1,363	27,371	34,497	4.2%
Florida	44,865	77,274	21,011	150,766	293,915	2.7%
Georgia	9,775	59,933	20,717	94,683	185,108	1.9%
Hawaii	232	4,071	234	5,470	10,006	0.2%
Idaho	11,405	3,530	888	9,184	25,008	2.3%
Illinois	29,494	48,047	11,270	104,803	193,613	1.0%
Indiana	12,432	14,104	2,186	38,417	67,139	2.4%
Iowa	11,805	9,951	1,663	13,694	37,113	0.7%
Kansas	7,383	10,197	1,594	19,219	38,393	2.9%
Kentucky	3,750	13,628	1,249	19,911	38,538	1.6%
Louisiana	2,285	10,160	971	15,208	28,624	2.3%
Maine	2,114	3,185	401	7,646	13,346	2.7%
Maryland	20,382	16,919	6,244	90,742	134,287	2.3%
Massachusetts	54,606	35,639	36,011	99,760	226,016	1.2%
Michigan	19,868	25,815	7,258	57,315	110,256	0.8%
Minnesota	43,431	17,867	9,171	44,443	114,913	0.2%
Mississippi	2,040	6,226	233	7,833	16,332	2.1%
Missouri	12,208	29,884	3,940	54,401	100,433	3.2%
Montana	1,163	2,596	483	5,606	9,848	2.6%
Nebraska	3,791	7,458	4,024	15,564	30,837	2.3%
Nevada	3,603	8,217	1,863	12,688	26,370	3.7%
New Hampshire	15,726	5,508	3,883	16,027	41,143	2.0%
New Jersey	24,352	40,017	8,258	88,257	160,884	1.2%
New Mexico	5,010	5,077	415	8,491	18,993	0.7%
New York	53,728	109,313	27,408	139,532	329,981	3.1%
North Carolina	32,229	40,057	22,052	78,601	172,939	3.5%
North Dakota	1,190	2,284	1,348	3,439	8,261	0.7%
Ohio	20,714	36,778	8,638	79,769	145,899	1.7%
Oklahoma	4,061	11,616	805	13,181	29,663	0.7%
Oregon	41,108	13,962	12,953	24,903	92,925	2.2%
Pennsylvania	29,182	43,245	13,387	87,378	173,192	2.0%
Rhode Island	3,855	2,531	755	9,532	16,673	2.4%
South Carolina	6,811	15,790	3,466	23,676	49,742	3.5%
South Dakota	2,044	2,871	142	3,776	8,832	2.9%
Tennessee	6,446	18,610	6,706	32,206	63,968	3.2%
Texas	94,799	133,254	27,916	290,581	546,549	2.9%
Utah	13,790	16,609	13,824	36,989	81,212	3.7%
Vermont	4,267	1,566	745	5,245	11,823	-0.6%
Virginia	13,136	40,185	6,678	187,632	247,630	2.1%
Washington	18,179	64,619	77,396	75,642	235,836	3.4%
West Virginia	839	3,875	167	5,461	10,342	2.1%
Wisconsin	17,643	19,775	14,498	33,379	85,296	1.5%
Wyoming	221	1,686	48	1,445	3,400	2.9%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

	<u>Tech Manufacturing</u>	<u>Telecom, Data and Internet Services</u>	<u>Software Products</u>	<u>IT Services and Custom Software Services</u>	<u>Total</u>	<u>Projected % change 2022</u>
United States	1,084,068	1,398,645	522,323	2,763,328	5,768,365	2.4%
Albuquerque	4,586	3,351	215	4,715	12,868	-0.9%
Atlanta	8,751	48,911	17,701	70,024	145,387	1.2%
Austin	28,722	23,852	8,378	65,179	126,131	3.6%
Baltimore	13,463	6,735	2,971	39,072	62,242	2.6%
Boise	9,838	1,184	547	5,304	16,873	1.0%
Boston	47,890	29,872	34,697	87,651	200,109	1.0%
Buffalo	3,580	2,858	838	7,488	14,764	1.2%
Charleston	435	2,771	977	6,571	10,755	3.7%
Charlotte	2,466	14,168	5,201	22,681	44,516	4.4%
Chicago	23,960	38,222	7,717	80,521	150,420	0.3%
Cincinnati	3,736	6,722	2,302	15,221	27,981	1.8%
Cleveland	5,079	5,119	1,569	16,680	28,448	1.1%
Colorado Springs	2,812	2,063	1,696	10,921	17,493	1.3%
Dallas	44,080	51,867	11,108	112,792	219,847	2.5%
Denver	6,412	33,025	10,445	51,767	101,649	3.9%
Des Moines	879	3,431	504	5,820	10,634	1.2%
Detroit	5,307	11,203	3,617	34,745	54,872	-1.3%
Hartford	3,184	2,642	1,014	11,096	17,937	0.2%
Houston	12,784	17,243	3,326	43,513	76,865	-0.2%
Huntsville	4,655	1,084	333	12,190	18,263	1.1%
Indianapolis	4,027	6,263	1,272	21,449	33,011	2.3%
Kansas City	10,645	9,649	1,228	31,068	52,591	3.6%
Las Vegas	797	5,788	1,199	8,943	16,728	3.4%
Los Angeles	73,965	50,533	21,479	84,158	230,136	0.2%
Memphis	1,102	2,207	838	5,003	9,150	0.2%
Miami	6,425	23,020	6,483	37,461	73,389	1.1%
Milwaukee	8,215	7,583	1,241	10,907	27,947	-1.7%
Minneapolis	35,877	11,631	7,778	36,007	91,293	-0.1%
Nashville	2,065	7,481	3,577	14,309	27,432	3.2%
New Orleans	1,161	2,612	310	5,254	9,338	3.0%
New York City	31,750	115,983	27,548	159,169	334,451	2.6%
Oklahoma City	1,559	3,337	427	5,802	11,125	-1.8%
Omaha	863	4,706	2,457	9,260	17,286	1.3%
Orlando	4,346	12,276	4,013	20,907	41,541	2.1%
Philadelphia	17,668	23,115	7,756	42,017	90,556	0.4%
Phoenix	30,586	24,939	5,151	40,700	101,375	2.6%
Pittsburgh	8,824	7,771	2,901	16,554	36,049	1.3%
Portland	40,226	11,103	9,924	21,192	82,445	2.1%
Providence	5,469	3,541	1,172	9,247	19,429	1.0%
Raleigh	6,961	10,114	10,890	22,757	50,722	1.9%
Sacramento	4,533	5,041	1,241	15,412	26,227	1.0%
Salt Lake City	7,561	8,007	6,475	20,662	42,705	3.2%
San Antonio	2,276	12,683	805	13,002	28,765	2.5%
San Diego	31,235	11,460	5,360	30,948	79,003	2.1%
San Francisco	35,218	88,976	31,513	116,324	272,031	4.5%
San Jose	125,616	65,935	35,326	96,007	322,884	2.8%
Seattle	12,404	55,670	74,228	61,668	203,970	3.4%
St. Louis	3,429	15,729	2,611	22,400	44,169	1.1%
Tampa	10,373	15,116	3,873	25,274	54,635	1.1%
Trenton	851	1,669	775	4,518	7,814	-0.2%
Washington DC	13,567	38,334	8,128	191,095	251,125	1.6%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA



# APPENDIX TABLES – F

## EMPLOYER JOB POSTINGS

# STATE EMPLOYER TECH JOB POSTINGS: WFH

## APPENDIX F.1

Employer job postings that specify a work from home (WFH) or hybrid work option

	<b>2019 WFH Tech Job Postings</b>	<b>2021 WFH Tech Job Postings</b>	<b>2019-2021 Change</b>	<b>2019-2021 % Change</b>	<b>2021 Total Tech Job Postings</b>	<b>WFH as % of Total Tech Job Postings</b>
United States	570,914	1,011,889	440,975	+77%	3,565,711	28%
Alabama	3,410	9,033	5,623	+165%	36,972	24%
Alaska	932	2,197	1,265	+136%	6,287	35%
Arizona	11,482	26,402	14,920	+130%	93,491	28%
Arkansas	2,232	4,127	1,895	+85%	15,208	27%
California	93,687	139,100	45,413	+48%	499,483	28%
Colorado	16,450	34,968	18,518	+113%	122,176	29%
Connecticut	7,315	13,456	6,141	+84%	43,028	31%
Delaware	1,906	3,439	1,533	+80%	14,006	25%
District of Columbia	9,091	16,247	7,156	+79%	58,157	28%
Florida	31,755	51,762	20,007	+63%	171,537	30%
Georgia	22,738	49,362	26,624	+117%	152,473	32%
Hawaii	960	2,628	1,668	+174%	9,123	29%
Idaho	1,343	5,872	4,529	+337%	20,502	29%
Illinois	24,134	45,164	21,030	+87%	150,829	30%
Indiana	5,795	12,294	6,499	+112%	42,892	29%
Iowa	3,707	9,520	5,813	+157%	28,728	33%
Kansas	3,416	8,430	5,014	+147%	25,567	33%
Kentucky	3,231	7,150	3,919	+121%	23,904	30%
Louisiana	3,149	6,585	3,436	+109%	20,485	32%
Maine	1,052	1,665	613	+58%	5,878	28%
Maryland	13,895	18,381	4,486	+32%	82,210	22%
Massachusetts	17,775	31,969	14,194	+80%	112,318	28%
Michigan	12,512	23,182	10,670	+85%	90,034	26%
Minnesota	10,890	23,992	13,102	+120%	75,666	32%
Mississippi	1,065	2,889	1,824	+171%	10,088	29%
Missouri	9,145	15,980	6,835	+75%	56,696	28%
Montana	543	2,063	1,520	+280%	6,098	34%
Nebraska	2,560	5,770	3,210	+125%	19,733	29%
Nevada	3,488	8,149	4,661	+134%	24,194	34%
New Hampshire	1,719	3,559	1,840	+107%	11,782	30%
New Jersey	20,895	28,348	7,453	+36%	105,942	27%
New Mexico	1,653	4,127	2,474	+150%	13,131	31%
New York	32,657	47,082	14,425	+44%	173,902	27%
North Carolina	23,441	37,876	14,435	+62%	138,701	27%
North Dakota	488	2,229	1,741	+357%	6,848	33%
Ohio	16,675	26,259	9,584	+57%	100,295	26%
Oklahoma	2,792	6,002	3,210	+115%	21,651	28%
Oregon	6,456	12,929	6,473	+100%	41,864	31%
Pennsylvania	19,227	29,630	10,403	+54%	99,216	30%
Rhode Island	1,837	3,337	1,500	+82%	12,367	27%
South Carolina	4,081	7,730	3,649	+89%	26,353	29%
South Dakota	459	2,019	1,560	+340%	6,117	33%
Tennessee	8,571	15,906	7,335	+86%	48,541	33%
Texas	53,713	103,851	50,138	+93%	352,191	29%
Utah	4,156	10,679	6,523	+157%	38,954	27%
Vermont	521	1,537	1,016	+195%	4,795	32%
Virginia	28,632	35,782	7,150	+25%	161,678	22%
Washington	12,871	28,887	16,016	+124%	113,344	25%
West Virginia	828	1,695	867	+105%	6,394	27%
Wisconsin	8,463	16,669	8,206	+97%	53,874	31%
Wyoming	318	1,307	989	+311%	3,460	38%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# METRO EMPLOYER TECH JOB POSTINGS: WFH

## APPENDIX F.2

Employer job postings that specify a work from home (WFH) or hybrid work option

	<b>2019 WFH Tech Job Postings</b>	<b>2021 WFH Tech Job Postings</b>	<b>2019-2021 Change</b>	<b>2019-2021 % Change</b>	<b>2021 Total Tech Job Postings</b>	<b>WFH as % of Total Tech Job Postings</b>
United States	570,914	1,011,889	440,975	+77%	3,565,711	28%
Albuquerque	1,193	2,534	1,341	+112%	8,485	30%
Atlanta	19,975	36,336	16,361	+82%	121,711	30%
Austin	10,833	22,873	12,040	+111%	70,136	33%
Baltimore	8,035	10,738	2,703	+34%	49,249	22%
Boise	1,074	4,195	3,121	+291%	13,651	31%
Boston	16,460	29,005	12,545	+76%	101,128	29%
Buffalo	1,288	2,316	1,028	+80%	9,013	26%
Charleston	797	1,882	1,085	+136%	6,062	31%
Charlotte	10,742	15,108	4,366	+41%	57,425	26%
Chicago	21,948	39,510	17,562	+80%	132,225	30%
Cincinnati	4,099	6,356	2,257	+55%	23,663	27%
Cleveland	3,307	5,203	1,896	+57%	18,342	28%
Colorado Springs	1,656	3,967	2,311	+140%	17,031	23%
Dallas	26,567	48,843	22,276	+84%	172,936	28%
Denver	11,208	23,677	12,469	+111%	80,603	29%
Des Moines	2,311	5,244	2,933	+127%	16,262	32%
Detroit	7,418	13,279	5,861	+79%	57,515	23%
Hartford	4,307	7,669	3,362	+78%	23,467	33%
Houston	9,804	15,172	5,368	+55%	54,413	28%
Huntsville	1,134	2,332	1,198	+106%	15,227	15%
Indianapolis	3,417	7,382	3,965	+116%	24,213	30%
Kansas City	4,187	8,120	3,933	+94%	27,027	30%
Las Vegas	2,748	5,853	3,105	+113%	17,169	34%
Los Angeles	28,718	44,691	15,973	+56%	146,806	30%
Memphis	1,860	3,429	1,569	+84%	10,877	32%
Miami	10,116	15,982	5,866	+58%	50,468	32%
Milwaukee	3,680	6,326	2,646	+72%	22,447	28%
Minneapolis	9,536	20,438	10,902	+114%	63,894	32%
Nashville	5,082	8,949	3,867	+76%	26,366	34%
New Orleans	1,172	2,319	1,147	+98%	7,275	32%
New York City	42,963	60,838	17,875	+42%	223,988	27%
Oklahoma City	1,659	3,442	1,783	+107%	11,857	29%
Omaha	1,789	3,678	1,889	+106%	12,456	30%
Orlando	4,088	7,137	3,049	+75%	24,657	29%
Philadelphia	13,972	20,695	6,723	+48%	71,796	29%
Phoenix	9,981	22,907	12,926	+130%	78,889	29%
Pittsburgh	4,442	8,043	3,601	+81%	27,581	29%
Portland	5,799	10,714	4,915	+85%	35,708	30%
Providence	1,834	3,299	1,465	+80%	12,192	27%
Raleigh	7,253	12,953	5,700	+79%	42,070	31%
Sacramento	3,918	6,797	2,879	73%	22,288	30%
Salt Lake City	2,854	7,424	4,570	160%	23,986	31%
San Antonio	3,603	8,026	4,423	123%	25,072	32%
San Diego	8,295	12,340	4,045	49%	49,484	25%
San Francisco	25,204	39,943	14,739	58%	132,533	30%
San Jose	19,449	23,696	4,247	22%	102,973	23%
Seattle	11,150	23,668	12,518	112%	94,289	25%
St. Louis	6,646	9,941	3,295	50%	37,637	26%
Tampa	7,966	13,003	5,037	+63%	44,322	29%
Trenton	2,861	3,495	634	+22%	11,374	31%
Washington DC	33,546	44,190	10,644	+32%	195,433	23%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

APPENDIX TABLES – G  
PRIOR YEAR REPORTING DEFINITION

# NET TECH EMPLOYMENT TRENDING BY STATE

## APPENDIX G.1

Prior definition | For an explanation of the net tech employment calculation, see page 5

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021 est.</u>	<u>2022 proj.</u>
United States	11,283,381	11,485,902	11,818,225	12,149,330	12,179,022	12,291,424	12,514,339
Alabama	139,039	141,759	145,734	149,210	150,703	152,860	155,373
Alaska	18,544	18,385	18,015	18,241	18,003	17,932	17,908
Arizona	228,866	235,074	244,993	255,013	261,774	264,407	271,831
Arkansas	57,027	56,029	55,402	56,358	57,713	58,419	59,712
California	1,699,222	1,736,909	1,809,041	1,872,653	1,876,935	1,888,327	1,926,262
Colorado	278,308	284,934	297,500	310,420	316,220	320,779	330,235
Connecticut	138,270	138,058	139,123	140,246	139,523	139,326	139,325
Delaware	32,298	32,273	32,465	31,525	31,200	30,875	30,731
District of Columbia	78,800	80,102	81,520	84,030	84,451	84,635	86,521
Florida	529,584	548,749	568,891	591,413	599,953	613,694	628,967
Georgia	344,106	352,348	358,512	367,273	368,787	375,111	383,097
Hawaii	30,407	30,487	31,258	31,835	30,758	30,939	31,174
Idaho	48,342	49,255	51,469	53,091	54,144	55,557	56,885
Illinois	433,018	434,089	439,097	444,774	436,027	436,885	438,886
Indiana	178,019	178,993	181,118	184,227	181,998	184,902	187,614
Iowa	89,646	90,950	94,356	96,520	95,269	94,866	96,056
Kansas	94,263	94,145	95,754	98,115	100,093	99,375	100,355
Kentucky	94,388	95,724	96,933	98,894	99,548	101,348	103,125
Louisiana	81,218	82,411	84,420	85,661	83,916	83,671	84,341
Maine	33,250	34,130	35,647	36,481	36,762	37,638	38,380
Maryland	281,587	285,541	292,977	299,640	298,243	300,622	306,159
Massachusetts	407,619	418,168	430,723	449,862	449,412	452,819	460,088
Michigan	391,816	391,625	397,052	397,275	378,793	385,027	387,744
Minnesota	241,089	243,275	246,170	248,636	244,943	245,130	246,828
Mississippi	43,882	44,156	44,575	44,933	45,273	45,986	46,571
Missouri	200,138	202,624	205,120	207,722	208,820	212,177	216,260
Montana	21,406	21,822	22,398	22,659	23,224	23,610	24,090
Nebraska	60,976	61,977	62,656	63,469	64,542	65,309	66,405
Nevada	60,092	62,983	67,284	69,620	67,226	69,217	71,275
New Hampshire	64,551	68,021	70,131	72,065	71,972	73,002	74,319
New Jersey	331,336	330,955	337,415	341,229	337,424	341,677	345,054
New Mexico	65,757	66,209	68,168	70,752	71,609	71,790	72,622
New York	633,271	644,371	658,914	670,052	661,698	659,453	672,282
North Carolina	326,661	338,212	352,419	363,334	372,121	379,196	389,848
North Dakota	21,663	21,315	21,451	20,941	20,331	20,209	20,339
Ohio	379,552	384,026	388,110	392,018	384,846	387,301	391,070
Oklahoma	87,404	87,911	90,649	93,016	92,411	91,915	92,293
Oregon	153,290	157,160	161,047	166,459	167,284	168,080	171,623
Pennsylvania	421,892	426,381	435,003	444,423	439,860	443,181	449,227
Rhode Island	34,843	34,313	34,958	35,741	35,209	36,095	36,661
South Carolina	118,922	122,240	127,020	128,857	128,757	130,671	133,908
South Dakota	20,003	20,580	21,446	22,175	22,601	22,871	23,356
Tennessee	163,023	166,958	169,603	173,620	177,569	182,404	186,737
Texas	947,228	963,310	1,002,293	1,048,416	1,068,425	1,078,119	1,102,826
Utah	130,441	136,284	142,933	149,565	154,029	157,789	163,622
Vermont	22,112	22,200	22,461	22,899	22,545	22,653	22,751
Virginia	421,647	428,239	438,539	449,733	455,478	458,743	466,893
Washington	356,154	369,264	388,427	411,991	428,880	430,907	439,825
West Virginia	29,725	29,807	30,477	30,714	31,460	31,885	32,332
Wisconsin	206,223	208,718	213,708	218,509	217,819	219,467	221,850
Wyoming	9,196	9,229	9,572	9,890	9,804	9,921	10,035

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# NET TECH EMPLOYMENT TRENDING BY METRO

## APPENDIX G.2

Prior definition | For an explanation of the net tech employment calculation, see page 5

	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021 est.</u>	<u>2022 proj.</u>
United States	11,283,381	11,485,902	11,818,225	12,149,330	12,179,022	12,291,424	12,514,339
Albuquerque	37,997	37,887	39,068	40,153	40,745	40,708	40,842
Atlanta	250,317	257,784	263,770	271,500	270,902	273,327	277,821
Austin	146,247	150,971	159,582	171,116	178,640	181,406	187,824
Baltimore	133,368	134,960	139,421	142,266	142,845	142,683	145,420
Boise	26,455	26,865	28,447	29,518	29,736	30,228	30,782
Boston	350,497	362,355	373,142	391,305	392,161	393,468	399,973
Buffalo	35,856	36,341	37,539	37,325	35,583	35,413	35,656
Charleston	25,221	25,750	26,874	27,244	27,681	27,425	28,206
Charlotte	91,137	95,041	98,721	99,775	104,355	105,834	108,934
Chicago	335,829	337,288	339,019	341,373	333,124	330,504	330,089
Cincinnati	79,258	79,479	80,898	81,641	80,916	81,089	81,909
Cleveland	73,324	73,828	74,130	75,070	73,608	73,732	73,775
Colorado Springs	31,629	31,878	33,278	34,330	35,417	36,240	37,086
Dallas	335,653	342,033	354,215	371,402	379,754	386,389	395,399
Denver	169,520	174,134	182,334	190,065	193,842	196,944	203,116
Des Moines	27,064	28,354	29,905	30,334	30,941	31,072	31,611
Detroit	235,213	233,354	235,783	235,107	222,640	224,746	224,421
Hartford	53,361	54,177	54,559	55,750	55,425	54,495	54,584
Houston	231,273	228,614	233,682	240,748	236,826	232,928	232,347
Huntsville	48,844	50,362	52,645	54,970	56,916	57,937	59,264
Indianapolis	72,455	72,041	72,639	74,232	74,577	75,284	76,392
Kansas City	97,598	98,461	99,940	101,362	104,558	104,397	106,461
Las Vegas	39,363	41,003	43,386	44,647	43,399	43,964	44,851
Los Angeles	492,535	496,783	508,800	516,712	507,471	505,752	506,479
Memphis	26,438	27,267	27,729	27,823	27,369	27,523	27,605
Miami	140,337	143,888	147,071	151,308	149,897	152,304	154,170
Milwaukee	71,031	71,354	72,531	72,632	70,295	70,159	69,601
Minneapolis	191,481	192,630	195,884	197,743	194,862	194,287	195,066
Nashville	57,390	60,160	62,486	65,692	67,290	68,603	70,347
New Orleans	25,461	25,531	25,681	26,618	26,512	26,565	26,686
New York City	641,704	649,963	665,298	680,382	673,911	670,503	680,916
Oklahoma City	38,223	38,197	38,913	39,535	39,219	39,335	39,236
Omaha	36,459	36,674	36,751	37,149	37,544	37,845	38,174
Orlando	83,456	88,090	92,281	95,028	94,510	95,428	97,540
Philadelphia	223,228	224,777	228,845	234,007	233,688	231,718	232,964
Phoenix	174,882	179,088	186,247	195,005	201,274	203,054	208,527
Pittsburgh	96,060	95,909	97,906	98,431	96,160	95,476	95,997
Portland	129,229	131,934	135,510	140,224	140,423	140,456	143,040
Providence	45,669	45,601	46,048	46,572	45,220	45,669	45,901
Raleigh	84,205	87,074	91,548	93,849	89,577	90,636	92,747
Sacramento	73,167	72,536	73,645	75,267	74,666	75,308	76,246
Salt Lake City	70,460	72,796	76,128	79,632	81,327	83,617	86,271
San Antonio	63,906	65,255	66,808	69,237	70,065	71,377	72,958
San Diego	167,666	171,396	179,531	185,933	183,937	186,580	189,854
San Francisco	358,810	371,532	393,649	418,197	424,946	428,017	443,735
San Jose	350,053	360,676	379,091	396,411	402,033	401,177	410,873
Seattle	281,467	294,201	311,909	333,516	349,077	349,241	356,433
St. Louis	104,031	104,026	105,214	107,053	107,303	107,505	108,173
Tampa	98,442	100,096	103,950	108,345	109,786	110,520	112,275
Trenton	24,720	25,020	25,382	25,773	26,414	26,563	26,995
Washington DC	428,451	434,803	443,260	452,707	455,033	457,378	463,423

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# TECH INDUSTRY SECTOR SUMMARY BY STATE

APPENDIX G.3

Prior year industry definition

	<b>Tech Manufacturing</b>	<b>Telecom, Data and Internet Services</b>	<b>Software Products</b>	<b>IT Services and Custom Software Services</b>	<b>R&amp;D, Testing, and Engineering Services</b>	<b>Total</b>	<b>Projected % change 2022</b>
United States	1,175,854	1,398,645	522,323	2,763,328	1,968,103	7,828,254	2.1%
Alabama	12,746	10,892	2,681	30,807	34,901	92,027	1.7%
Alaska	118	3,614	50	2,084	4,248	10,114	-0.1%
Arizona	50,547	29,476	7,605	50,893	28,369	166,890	2.8%
Arkansas	2,498	7,212	396	11,374	5,600	27,080	2.9%
California	321,101	249,271	105,480	410,974	307,268	1,394,094	2.5%
Colorado	30,359	44,467	17,197	84,106	57,296	233,425	3.1%
Connecticut	11,149	11,693	4,388	27,364	18,903	73,496	0.1%
Delaware	2,493	2,436	263	5,864	5,489	16,545	-1.8%
District of Columbia	107	5,657	1,363	27,371	9,055	43,552	3.0%
Florida	57,446	77,274	21,011	150,766	89,986	396,483	2.7%
Georgia	10,382	59,933	20,717	94,683	44,415	230,131	2.0%
Hawaii	233	4,071	234	5,470	5,998	16,006	1.1%
Idaho	11,405	3,530	888	9,184	13,644	38,652	2.0%
Illinois	29,520	48,047	11,270	104,803	54,211	247,850	0.6%
Indiana	12,434	14,104	2,186	38,417	21,350	88,492	2.0%
Iowa	11,805	9,951	1,663	13,694	9,123	46,236	1.1%
Kansas	7,383	10,197	1,594	19,219	15,225	53,618	2.4%
Kentucky	3,753	13,628	1,249	19,911	12,678	51,219	1.6%
Louisiana	2,541	10,160	971	15,208	19,667	48,547	0.9%
Maine	3,011	3,185	401	7,646	7,007	21,251	2.7%
Maryland	20,695	16,919	6,244	90,742	68,867	203,467	2.0%
Massachusetts	62,138	35,639	36,011	99,760	117,142	350,690	1.9%
Michigan	20,853	25,815	7,258	57,315	103,247	214,488	0.7%
Minnesota	43,431	17,867	9,171	44,443	26,153	141,066	0.4%
Mississippi	2,345	6,226	233	7,833	5,256	21,894	1.3%
Missouri	13,282	29,884	3,940	54,401	25,921	127,428	2.5%
Montana	1,163	2,596	483	5,606	4,811	14,658	2.2%
Nebraska	3,791	7,458	4,024	15,564	7,021	37,858	2.2%
Nevada	3,616	8,217	1,863	12,688	14,258	40,641	3.0%
New Hampshire	15,726	5,508	3,883	16,027	8,660	49,803	2.2%
New Jersey	24,355	40,017	8,258	88,257	64,429	225,316	1.0%
New Mexico	5,246	5,077	415	8,491	34,707	53,935	1.4%
New York	53,972	109,313	27,408	139,532	91,873	422,099	2.7%
North Carolina	32,229	40,057	22,052	78,601	61,612	234,551	3.3%
North Dakota	1,190	2,284	1,348	3,439	4,000	12,261	0.5%
Ohio	20,750	36,778	8,638	79,769	53,698	199,633	1.3%
Oklahoma	4,063	11,616	805	13,181	10,244	39,909	0.2%
Oregon	41,108	13,962	12,953	24,903	18,928	111,853	2.4%
Pennsylvania	30,593	43,245	13,387	87,378	90,740	265,342	1.9%
Rhode Island	3,855	2,531	755	9,532	4,476	21,148	2.1%
South Carolina	6,811	15,790	3,466	23,676	19,263	69,006	2.6%
South Dakota	2,044	2,871	142	3,776	3,543	12,376	3.1%
Tennessee	6,446	18,610	6,706	32,206	28,391	92,359	2.5%
Texas	96,957	133,254	27,916	290,581	155,141	703,848	2.5%
Utah	18,341	16,609	13,824	36,989	22,785	108,548	3.9%
Vermont	4,267	1,566	745	5,245	2,573	14,396	0.2%
Virginia	13,500	40,185	6,678	187,632	74,626	322,621	1.7%
Washington	22,065	64,619	77,396	75,642	49,196	288,918	3.0%
West Virginia	2,123	3,875	167	5,461	4,729	16,354	1.6%
Wisconsin	17,647	19,775	14,498	33,379	25,388	110,687	1.6%
Wyoming	221	1,686	48	1,445	1,991	5,391	1.5%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA

# TECH INDUSTRY SECTOR SUMMARY BY METRO

APPENDIX G.4

Prior year industry definition

	<b>Tech Manufacturing</b>	<b>Telecom, Data and Internet Services</b>	<b>Software Products</b>	<b>IT Services and Custom Software Services</b>	<b>R&amp;D, Testing, and Engineering Services</b>	<b>Total</b>	<b>Projected % change 2022</b>
United States	1,175,854	1,398,645	522,323	2,763,328	1,968,103	7,828,254	2.1%
Albuquerque	4,586	3,351	215	4,715	18,443	31,311	0.3%
Atlanta	8,751	48,911	17,701	70,024	30,468	175,855	1.3%
Austin	28,725	23,852	8,378	65,179	18,278	144,412	3.5%
Baltimore	13,472	6,735	2,971	39,072	31,486	93,737	2.1%
Boise	9,838	1,184	547	5,304	3,902	20,775	1.5%
Boston	55,421	29,872	34,697	87,651	106,477	314,118	1.9%
Buffalo	3,825	2,858	838	7,488	6,896	21,904	0.9%
Charleston	435	2,771	977	6,571	5,963	16,718	3.3%
Charlotte	2,466	14,168	5,201	22,681	10,199	54,716	3.9%
Chicago	23,977	38,222	7,717	80,521	42,800	193,237	-0.1%
Cincinnati	3,736	6,722	2,302	15,221	11,804	39,785	1.6%
Cleveland	5,081	5,119	1,569	16,680	8,301	36,750	0.5%
Colorado Springs	2,885	2,063	1,696	10,921	8,392	25,958	2.2%
Dallas	44,362	51,867	11,108	112,792	31,623	251,751	2.4%
Denver	12,971	33,025	10,445	51,767	31,785	139,993	3.5%
Des Moines	879	3,431	504	5,820	4,182	14,817	2.1%
Detroit	6,285	11,203	3,617	34,745	77,384	133,233	-0.6%
Hartford	3,186	2,642	1,014	11,096	6,169	24,108	0.0%
Houston	13,672	17,243	3,326	43,513	63,729	141,482	-0.6%
Huntsville	8,563	1,084	333	12,190	22,962	45,133	2.4%
Indianapolis	4,027	6,263	1,272	21,449	9,427	42,438	2.0%
Kansas City	10,645	9,649	1,228	31,068	18,694	71,285	2.8%
Las Vegas	811	5,788	1,199	8,943	8,956	25,697	2.8%
Los Angeles	91,565	50,533	21,479	84,158	69,533	317,268	0.4%
Memphis	1,102	2,207	838	5,003	3,089	12,239	-0.6%
Miami	6,466	23,020	6,483	37,461	20,961	94,392	1.1%
Milwaukee	8,216	7,583	1,241	10,907	6,968	34,916	-0.9%
Minneapolis	35,877	11,631	7,778	36,007	21,115	112,408	0.1%
Nashville	2,065	7,481	3,577	14,309	6,657	34,089	2.8%
New Orleans	1,414	2,612	310	5,254	5,874	15,464	0.8%
New York City	31,753	115,983	27,548	159,169	96,289	430,743	2.2%
Oklahoma City	1,559	3,337	427	5,802	4,841	15,965	-1.2%
Omaha	863	4,706	2,457	9,260	4,068	21,354	1.2%
Orlando	11,406	12,276	4,013	20,907	16,375	64,976	2.5%
Philadelphia	19,098	23,115	7,756	42,017	52,783	144,769	0.7%
Phoenix	33,446	24,939	5,151	40,700	20,085	124,320	2.6%
Pittsburgh	8,829	7,771	2,901	16,554	23,004	59,058	0.8%
Portland	40,226	11,103	9,924	21,192	14,845	97,290	2.1%
Providence	5,469	3,541	1,172	9,247	6,153	25,582	0.8%
Raleigh	6,961	10,114	10,890	22,757	18,440	69,161	2.3%
Sacramento	4,920	5,041	1,241	15,412	15,153	41,768	1.2%
Salt Lake City	8,289	8,007	6,475	20,662	13,102	56,535	3.4%
San Antonio	2,379	12,683	805	13,002	13,004	41,873	2.2%
San Diego	31,555	11,460	5,360	30,948	58,997	138,319	2.0%
San Francisco	35,239	88,976	31,513	116,324	81,291	353,342	4.3%
San Jose	130,075	65,935	35,326	96,007	40,519	367,863	2.6%
Seattle	16,190	55,670	74,228	61,668	32,292	240,048	3.1%
St. Louis	4,502	15,729	2,611	22,400	14,018	59,260	0.7%
Tampa	10,758	15,116	3,873	25,274	16,235	71,256	1.4%
Trenton	851	1,669	775	4,518	8,718	16,531	1.3%
Washington DC	13,581	38,334	8,128	191,095	76,908	328,047	1.3%

Sources: EMSI Burning Glass | U.S. Bureau of Labor Statistics | CompTIA



# METHODOLOGY

## 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. IMPORTANT NOTE: the revisions made to the definition of technology in this edition of the report means it is not directly comparable to prior editions. See Appendix for prior definition data.

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 (41 percent), but many others are employed by organizations across every industry sector or government entity in the U.S. economy (59 percent).

The second component of the discussion consists of the business professionals employed by technology companies. These professionals play an important role in supporting the development and delivery of the technology products and services used throughout the economy. Thirty-nine percent of the net tech employment total consists of tech industry business professionals. See page 5 of this report for more details on the concept of Net Tech Employment.

## TECH INDUSTRY DEFINITION

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

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

## TECH OCCUPATION DEFINITION

For occupation-level analysis, this report utilizes the Standard Occupational Classification (SOC) System, which is a standard used by federal agencies to classify workers into occupational categories. See following page.

## WORKFORCE CHARACTERISTICS AND DIVERSITY INDEX

The U.S. Bureau of Labor Statistics (BLS) tracks labor market composition across several demographic and firmographic characteristics. By race and ethnicity, the BLS segments data by seven top-level categorizations. Described here: <https://www.bls.gov/opub/reports/race-and-ethnicity/2019/home.htm>. To measure overall race and ethnicity characteristics within the tech workforce, this report uses a metric called Simpson's Diversity Index. This index weights two key facets of race and ethnicity within the workforce – richness and evenness (or think of it as depth and breadth) and reflects it in a single metric. See page 10 of this report for more details.

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

NAICS and SOCs are standard taxonomies developed by and used across government statistical programs. NAICS and SOCs are updated on regular cycles, but because of the pace of change in technology, government taxonomies do tend to lag the market. Additionally, the blurring of lines in technology means there are more gray areas in classification systems. See government sites for more details on NAICS and SOCs.

IMPORTANT NOTE: the revisions made to the definition of technology in this edition of the report means it is not directly comparable to prior editions

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, 15-1244, 15-1245, 15-1251, 15-1256, 15-1257, 15-1299, 15-2098, 17-2061, 49-2011



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