

TECNA
NATIONAL WORKFORCE STUDY
MIGRATION OF TECH WORKERS AND JOBS SINCE THE PANDEMIC

Study completed by eIMPACT May 2022

EXECUTIVE SUMMARY

Pre-pandemic, most tech workers moved to jobs that were performed at companies in and around tech hubs such as Austin, Boston, San Francisco, or Seattle. Since the beginning of the COVID-19 Pandemic, that technology workforce relocation dynamic has changed. Some employees are moving away from tech hubs while retaining their current job that was once performed in a tech hub. Adding complexity to this workforce market dynamic, jobs opened by companies in one city are now being filled by employees in another city with no relocation. The positive economic impact a tech company is no longer concentrated to the city in which the company operates. Furthermore, talent poaching has been a common strategy for most technology employers because demand for tech talent far exceed supply. Some companies formed operations in a distant tech hub mainly for this purpose. However, poaching is no longer limited to a metro. Poaching is now national and international.

Until now, there is no comprehensive collection of data on these workforce trends. While there has been some sporadic, ad-hoc reporting of anecdotes, this TECNA report shows more precisely where talent is migrating, how many jobs are performed remotely, and where the talent pools are growing. This data will help inform tech recruiters to better compete for talent, technology leaders considering workplace policies, educational institutions building relationships with industry, and legislators considering policies to encourage private investment and job growth in their districts.

KEY FINDINGS

MIGRATION

State Headcount Net Migration: Among the top 10 states of Tech cluster profiles, the data show Texas with the highest gain and California with the highest loss for trailing 12-month headcount net migration.

Metro Headcount Net Migration: Among the top 10 metros of Tech cluster profiles, the data show Seattle with the highest trailing 12-month net-migration gain of tech talent from a single metro. In Seattle's case that single metro supplier of talent was San Francisco.

Home Values as a Driver of Migration: There is no consistent positive or negative correlation to home value increases. In other words, there may be some employees who chose to migrate to a new metro for lower home prices during the pandemic, but overall, home values does not drive tech worker migration. Higher correlation to migration may be found in other variables such as Corp Relocation, Employer Remote Work Policy, Quality of Life, Work from Home Policies, etc. There were, however, at this time no reliable sources of quantifiable data that could be analyzed in this study for those other potential drivers of migration.

TECH WORKFORCE GROWTH BY GEOGRAPHY

Geographic Hubs of Tech Workers: The top five most dense tech hubs (number of tech workers as a percentage of total population) are San Jose, CA; Bloomington, IL; Boulder, CO; Seattle, WA; and Washington, DC. It is worth noting that the San Francisco Bay area as a whole, New York City, and Washington, DC have the largest absolute numbers of tech workers.

Top 25 Tech State Headcount Growth: Among the top 25 tech profile *states*, trailing 12-month *percent growth* of Tech cluster worker is led by Maryland followed closely by several other states.

- Maryland (8.42%)
- Indiana (8.4%)
- New York (8.3%)
- Texas (8.2%)
- Georgia (8.1%)

Top 25 Tech Metro Headcount Growth: Among the top 25 tech profile *metros*, trailing 12-month *percent growth* of Tech cluster worker is led by Houston, followed closely by several other metros.

- Houston, TX (8.9%)
- Orlando, FL (8.3%)
- New York, NY (8.1%)
- Charlotte, NC (8.0%)
- Los Angeles, CA (7.9%)

TECH JOBS AND RECOVERY THROUGH PANDEMIC

Remote Jobs: Job postings data provide a leading indicator of trends in employment, while also serving as a window into drivers in new trends, such as the shift to remote work. Nowhere is the shift to remote more evident than in tech. Remote job postings in tech occupations are more than 3x the rate of remote postings across all sectors, increasing 421% from pre pandemic levels. This does not appear to be slowing and early indications are that it will continue to grow.

Emerging Geographies of Tech Job Growth: Tennessee and Idaho saw the largest *percent change* increase in tech jobs, with an 8 percent and 7.3 percent increase respectively.

States Lagging in Tech Job Recovery: Not all states have recovered tech *jobs* lost during the pandemic. While the tech talent might still be living in the state, some states saw a marked reduction in jobs available during the pandemic and are now struggling to recover. While almost every state in the nation is currently adding tech

jobs, the following five states have not recovered to their pre-pandemic “baseline” of tech job counts.

- Hawaii (-5.0%)
- North Dakota (-4.6%)
- New York (-3.4%)
- Vermont (-1.7%)
- Alaska (-1.6%)

Compensation: Among the Tech cluster cohort in this study (7.3MM workers), average annual total compensation is \$119,876. The states with the highest average annual total compensation are California and Washington: \$127,733 and \$127,025, respectively. The state with the lowest average annual compensation is Wyoming: \$73,819.

Skills Demand in Job Postings: As of this study, top skills identified in job postings are: Software Development, Technical Support, SQL, Java.

NATIONAL LEVEL TAKEAWAYS



Current Top 5 Tech Cluster Employers in US:

1. Microsoft
2. Amazon
3. Google
4. Apple
5. Amazon Web Services (AWS)

ABOUT THE DATA

The report is based on data sourced by labor market data and includes 27,246 data points from numerous sources including Emsi Burning Glass, Zillow, and the U.S. Bureau of Labor Statistics.

For purposes of this study, “tech worker” is defined by the below U.S. Bureau of Labor and Statistics 2010 Standard Occupational Classification (SOC) codes. This group of tech workers is also referred to as a tech cluster.

- 11-3021 – Computer and Information Systems Managers
- 15-1111 – Computer and Information Research Scientists
- 15-1121 – Computer Systems Analysts
- 15-1122 – Information Security Analysts
- 15-1131 – Computer Programmers
- 15-1132 – Software Developers, Applications
- 15-1133 – Software Developers, Systems Software
- 15-1134 – Web Developers
- 15-1141 – Database Administrators
- 15-1142 – Network and Computer Systems Administrators
- 15-1143 – Computer Network Architects
- 15-1151 – Computer User Support Specialists
- 15-1152 – Computer Network Support Specialists
- 15-1199 – Computer Occupations, All Other
- 11-9041 – Architectural and Engineering Managers

Methodology used to calculate gender gap: Ex. tech worker cluster cohort
70% male - 30% female = 40% gender gap.

Zillow Home Value Index (ZHVI): a smoothed, seasonally adjusted measure of the typical home value and market changes across a given region and housing type. It reflects the typical value for homes in the 35th to 65th percentile range.

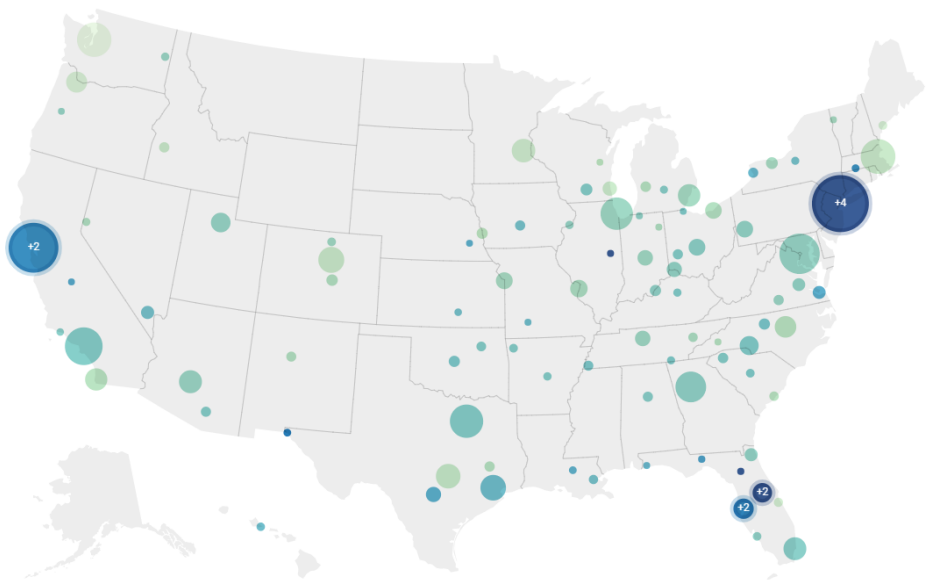
Where Does Tech Talent Now Reside?

PRESENT DAY SNAPSHOT

Although lesser populated metros throughout the country have shown the highest profile growth rate increases, data show that top 3 historical (and current) most highly concentrated tech metros - San Francisco Bay Area, New York City, and Washington DC - are still capturing the highest absolute numbers of recent tech profile growth.

Near-term Change in Tech Cluster Profiles by Metro

Hover to Display Data (double click to zoom / hold to drag)



*Not indicative of job location (could be working remote)

Recovery Trends in Top Tech Markets

SOME NOTABLE EARLY RISERS

The report highlights that while traditional tech hubs continue to drive jobs, hundreds of thousands of tech roles are being created in surprising places. Additionally, the report looked at regions making the most progress on closing the tech talent gender gap with Georgia, Maryland, and North Carolina leading the way among the 25 states with the highest growth rates of tech worker profiles.

Lowest Gender Gap for Top 25 States with Highest Growth Rates of Tech Worker Profiles

- Georgia (38%)
- Maryland (38%)
- North Carolina (40%)
- California (42%)
- New York (42%)
- Virginia (42%)
- Massachusetts (42%)
- Minnesota (42%)
- Connecticut (42%)
- Texas (44%)

Widest Gender Gap for Top 25 States with Highest Growth Rates of Tech Worker Profiles

- Utah (60%)
- Florida (46%)
- Ohio (46%)
- Indiana (46%)
- Texas (44%)
- Washington (44%)
- Illinois (44%)
- Pennsylvania (44%)
- New Jersey (44%)
- Colorado (44%)

Which States and Metros Gained and Lost Tech Workers?

Highest Tech Worker Percent Growth by State of Top 25 Tech Profile States

- Maryland (8.4%)
- Indiana (8.4%)
- New York (8.3%)
- Texas (8.2%)
- Georgia (8.1%)
- Florida (7.8%)
- New Jersey (7.8%)
- Tennessee (7.8%)
- North Carolina (7.7%)
- Missouri (7.7%)

Highest Tech Worker Percent Growth by Metro Area of Top 25 Tech Profile Metros

- Houston, TX (8.9%)
- Orlando, FL (8.3%)
- New York, NY (8.1%)
- Charlotte, NC (8.0%)
- Los Angeles, CA (7.9%)
- Dallas, TX (7.9%)
- Miami, FL (7.8%)
- Atlanta, GA (7.6%)
- Philadelphia, PA (7.5%)
- Washington DC (7.4%)

Tech Jobs

PRESENT DAY SNAPSHOT

Tennessee and Idaho saw the largest percent change increase in tech jobs, with an 8 percent and 7.3 percent increase respectively. And while many markets experienced an influx of tech workers, the data shows that they are often employed by companies not located in the areas in which they now live.

Pre vs. Post Covid Ranking by % Change in Tech Cluster Jobs

Dec. 2019 - Dec 2021 (hover to display values)

Change in Jobs

-5.0% 7.6%



States That Have Not Regained Tech Worker Jobs Lost Through the Pandemic

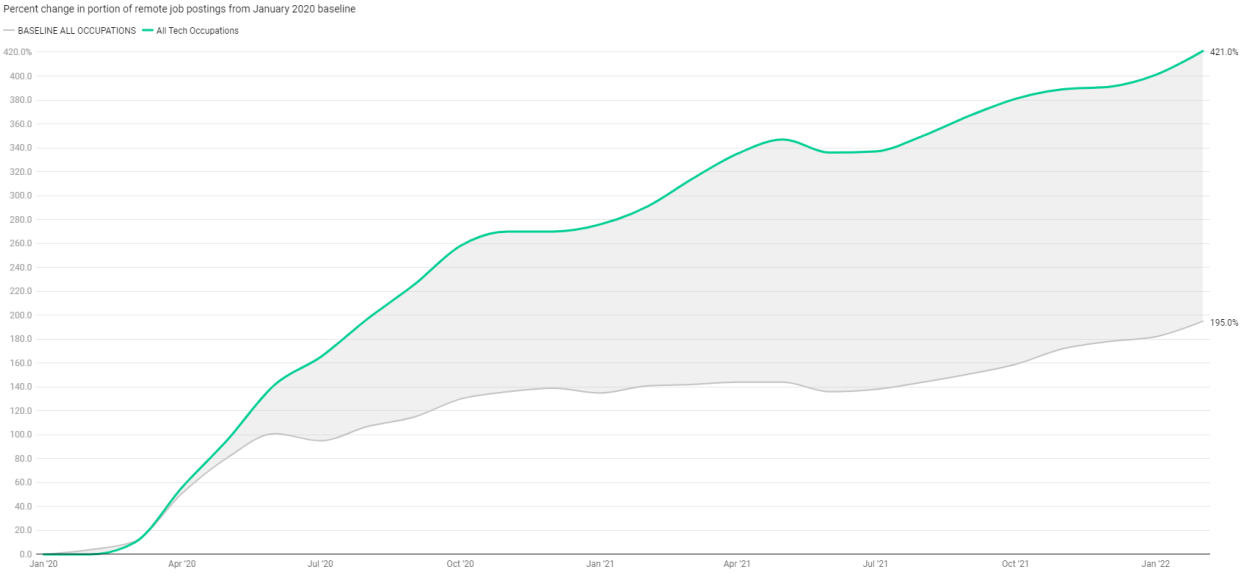
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- New York (-3.4%)
- Vermont (-1.7%)
- Alaska (-1.6%)
- Michigan (-1.6%)
- Massachusetts (-1.2%)
- New Jersey (-1.1%)
- Illinois (-1.1%)
- Maryland (-0.5%)

Remote Job Postings Trends

AN EXPLOSION IN REMOTE JOBS THAT IS ACCELERATING

As measured against a pre-pandemic baseline of January 2020, remote postings for tech jobs saw explosive growth with a 421% increase in the share of monthly posting volume vs. 195% increase in a baseline of all occupation remote job postings. As a result, states and major metro areas have a significant opportunity to attract companies to their regions and further boost their local economies.

Change in Portion of Remote Job Postings - Tech vs. All Occupations



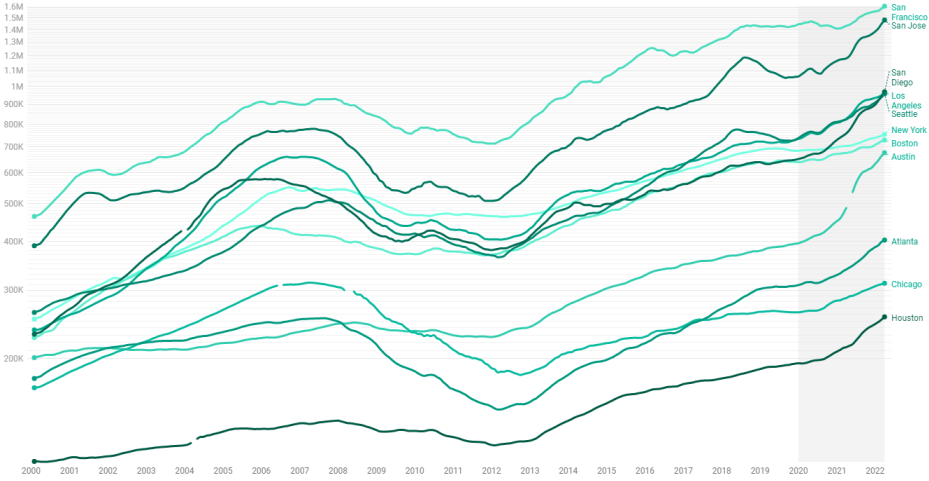
Correlations

MIGRATION RELATIONSHIPS OF TOP 10 TECH PROFILE CITIES TO HOME VALUE

Near term (TTM – Trailing Twelve Month) tech cluster profile migration: analysis results do not show a consistently positive or negative correlation to home value increases over the same period. Some cities show less sensitivity to housing cost change as a predictor of tech worker profile attraction during this period. Migration variable sensitivity and/or higher correlation to migration may be found in other variables (corp relocation, employer remote work policy, i.e. confined to certain states for remote work, QOL of potential remote work locations, public/private entities, etc.), none of which are quantifiable data that could be analyzed in this study.

Austin, TX ranked #1 among Top 10 cohort cities in home value appreciation, increasing 69.5% pre vs. post pandemic (see shaded area on chart), followed by San Diego, CA and San Jose, CA realizing home value appreciation gains of 48.1% and 37.9% respectively.

Housing Values by Top 10 Cities of Tech Profile Concentration
Shaded area denotes Covid* period. (Hover on line to isolate city trendline)



This executive summary and report is based on data sourced by labor market data visualization company eIMPACT, White Salmon, WA. May 2022.