LaborIQ®
by ThinkWhy

2021

Technology Salary Demands

AN INTERACTIVE GUIDE

Occupa

Salary Trends

100   200   300   400   500

Contents

Introduction

Jobs in technology roles remain in high demand and supply of talent is very tight.

Multiple variables play a role in a candidate accepting a new job. Company culture, career progression and work flexibility are just a few of the factors that candidates weigh when deciding whether to purse and accept a new role.

Compensation is one key factor why a candidate may change jobs. Due to high demand and low supply of talent, **salaries for technology jobs often eclipse $100,000** for those within tech roles, with four to six years of experience and a bachelor's degree.

With the economy kicking into a higher gear and recouping the millions of jobs lost during the pandemic, competition for talent is becoming fierce. Companies are hiring remote workers outside of their local job market. It stands to reason that organizations, HR leaders, compensation and hiring managers need a reliable source to keep a close eye on compensation demands for today's tech jobs.

I want answers for an Software Developer ∨ in the San Jose-Sunnyvale-Santa Clara, CA metro area.

Get Answers

2.4%

The unemployment rate in the U.S. for occupations in computer and mathematical occupations as of May 2021 is one of the lowest of any occupation type.

Salary Forecast

↑ $133,829
Expected to increase $3,598 by 2022 (2.8%)

Recommended Salary

↑ $130,231
3.0% higher than the Median Salary

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This compensation guide focuses on:

Several key technology roles, and the variance of salaries by city

Comparisons of varying experience and education levels and the market-driven salary for each

Diversity metrics showing percent of the employee base by gender and race

As a note, all salaries listed in this guide are   for new hires based on   of the factors listed in each section. These rates are different from median salaries, which represent people already employed in these roles. The recommended salary represents the benchmark rate of what a candidate would command in today's job market. For more information on methodology, please see the glossary at the end of this guide.
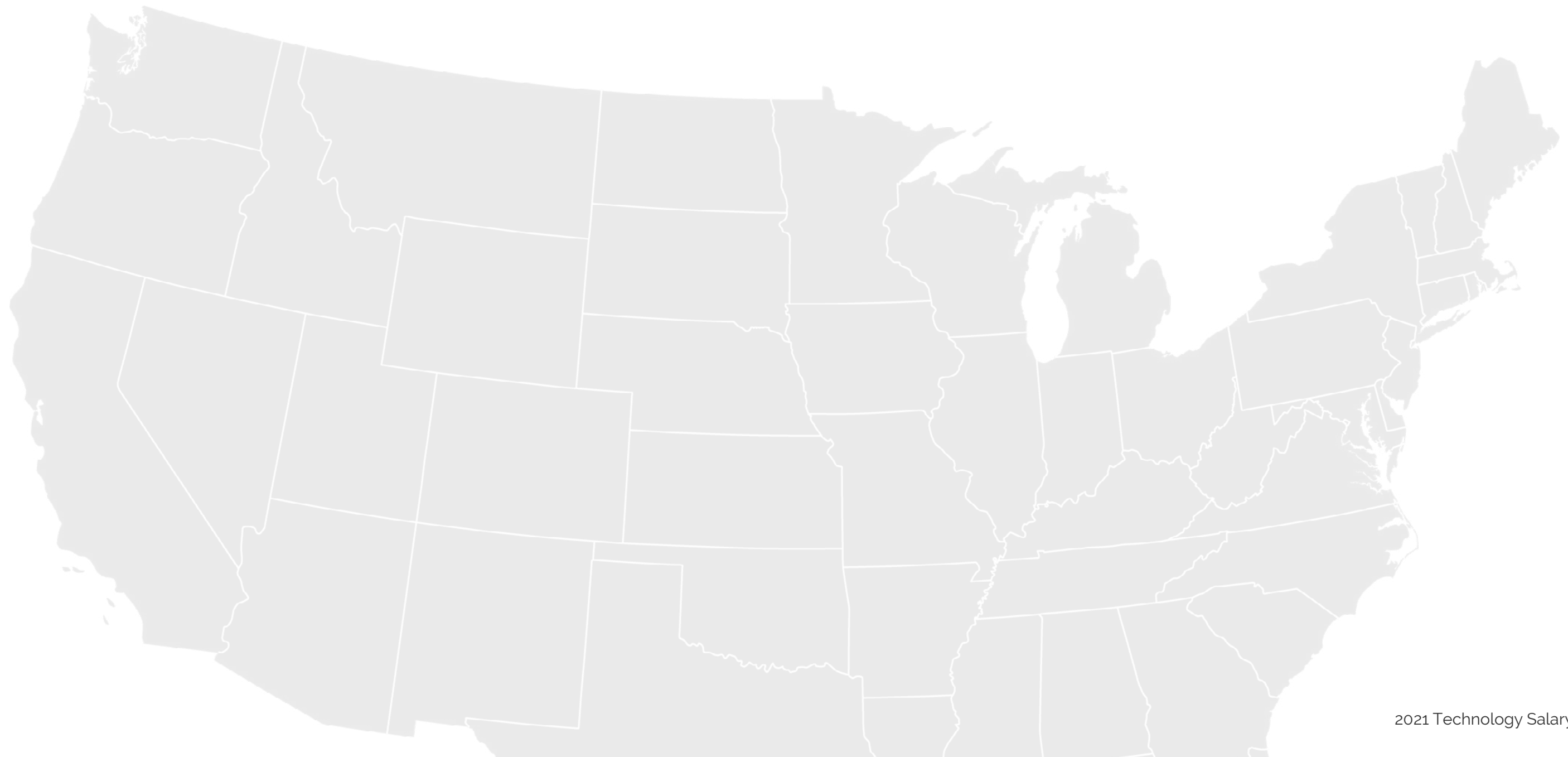
Recommended Salary

$95,389 $122,066 $150,411

25%   Median   75%

Location Pay Disparities
for Technology Jobs

Compensation can vary significantly from one city to the next, despite a job candidate having the same experience and education. Interestingly, some locations demand a premium for certain roles, but not others.

INTERACTIVE TIP: Scroll over the icons on the map below to learn more.

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Salary Comparisons Across Major Tech Hubs

The following table lists the recommended base salary for a candidate with a bachelor's degree and four to six years of experience for some of the most common technology job titles across metros.

INTERACTIVE TIP: Scroll over the outlined boxes in the chart below to learn more.

Location	Computer Programmers	Computer Systems Analysts	Data Scientists	Information Security Analysts	Software Developers	Web and Digital Interface Designers
"Seattle-Tacoma-Bellevue, WA"	$150	$109	$163	$120	$144	$123
"San Jose-Sunnyvale-Santa Clara, CA"	$126	$130	$181	$134	$140	$120
"Washington-Arlington-Alexandria, DC-VA-MD-WV"	$113	$114	$138	$129	$123	$113
New York-Newark-Jersey City, NY-NJ-PA"	$106	$123	$146	$144	$125	$109
"Los Angeles-Long Beach-Anaheim, CA"	$104	$102	$136	$113	$122	$98
"Boston-Cambridge-Nashua, MA-NH"	$110	$103	$127	$123	$120	$111
"Dallas-Fort Worth-Arlington, TX"	$111	$106	$147	$124	$118	$96
"Denver-Aurora-Lakewood, CO"	$107	$104	$132	$113	$118	$105
"Atlanta-Sandy Springs-Roswell, GA"	$106	$103	$125	$106	$112	$101
"Chicago-Naperville-Elgin, IL-IN-WI"	$112	$98	$124	$111	$112	$95

Indicates lowest recommended salary for each occupation

Source: LaborIQ® by ThinkWhy
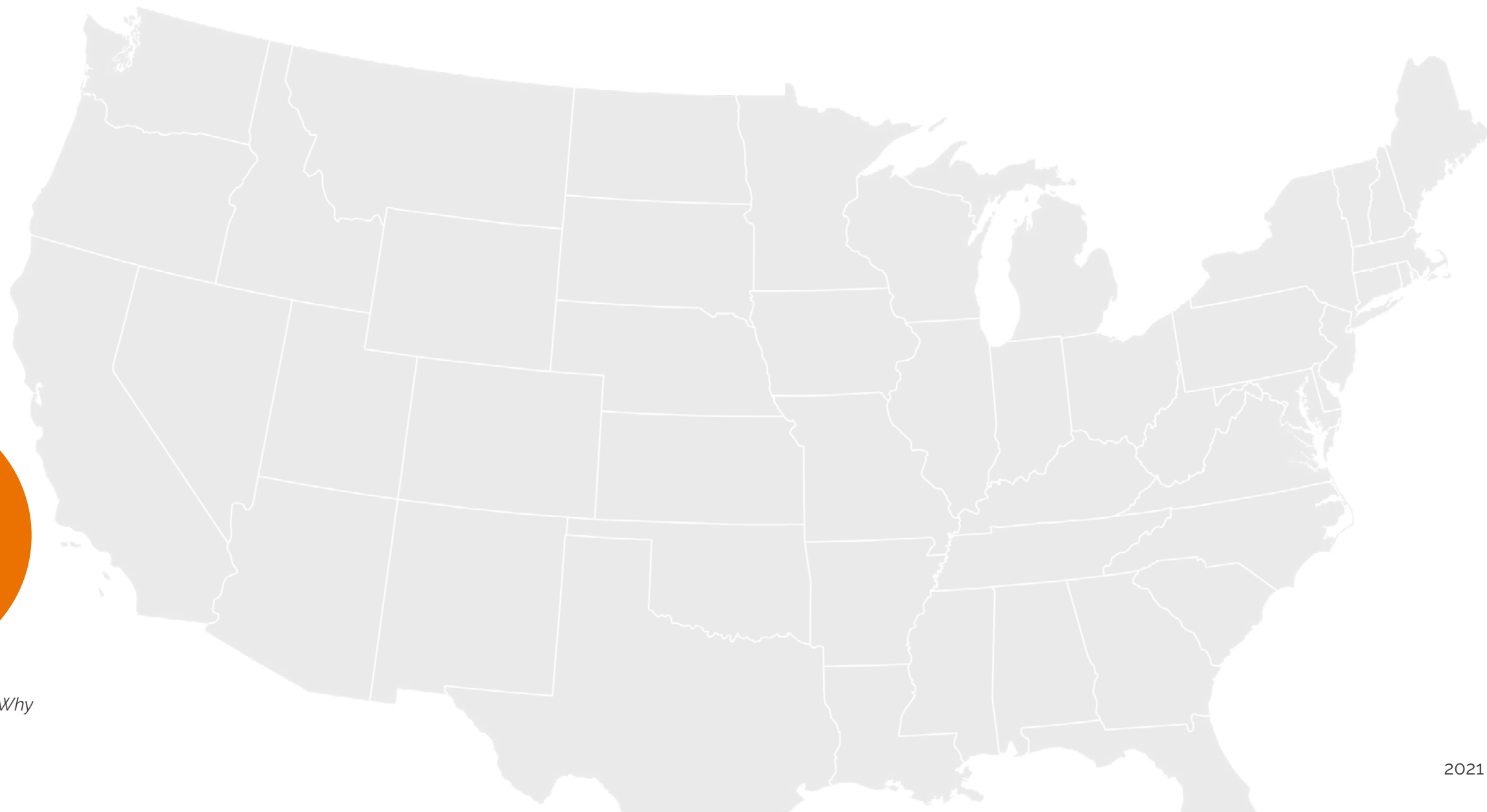
Software Developers

Taking a broader look across the U.S. for software developers, it's clear there is a premium for salary in many locations on the west coast, mid-Atlantic, and northeast regions of the country. Of course, cost of living often dictates the differences between pay levels, but local supply and demand for the roles is also a factor.

SOFTWARE DEVELOPER | RECOMMENDED SALARY BY CITY
Bachelor's Degree and 4-6 years of experience | as of April 30, 2021

With some organizations integrating a remote-work strategy or relocation of offices, a new pool of talent becomes available which can lead to headcount savings, depending upon the location.

The salaries quoted show a snapshot as of the date of publication, but longer-term trends and forecasts reveal how the pace of compensation changes can vary from one location to another.

INTERACTIVE TIP: Scroll over the icons on the map to view the recommended salary for each location.

Source: LaborIQ® by ThinkWhy

Base Salary Forecast

The following example illustrates how the base salary has changed for a software developer in Raleigh and New York from 2017 to 2021, as well as the forecast through 2026. Over time, an imbalance of supply and demand can cause salaries to grow faster in certain locations compared to others.

The Raleigh-Durham area is known for its high-tech "Research Triangle," and salaries have been increasing at a faster pace than New York over the past several years. On April 26, 2021, Apple released a statement that it will add 3,000 jobs in the Raleigh-Durham area for software development and machine learning and other similar roles. A local demand for jobs like this is the type of catalyst that causes a squeeze on supply and wages to become very competitive.

INTERACTIVE TIP: Scroll over the dots on the chart to view the base salary by location and year.

Source: LaborIQ® by ThinkWhy

Raleigh, NC   New York-Newark-Jersey City, NY-NJ-PA
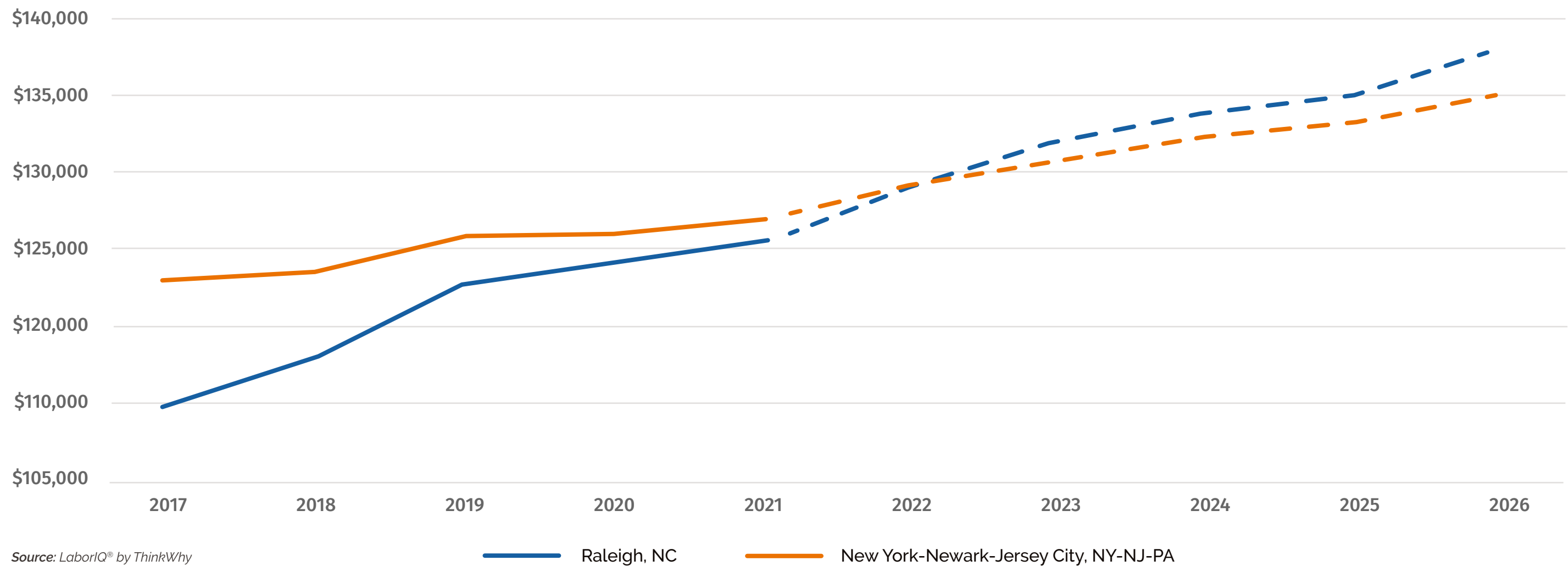
Salary Demands by Location

Salaries can vary widely by education and experience of the employee or candidate, as well as by location of employment. Remote work and corporate relocation strategies remain a hot topic due to a combination of cost savings and an ability to get higher skills for the dollar.

As an example, we've compared recommended salaries for a software developer, across different cities, based on varying education and experience levels.

INTERACTIVE TIP: Scroll over the bars below to see their values.

$125,000		
$100,000		
$75,000		
$50,000		
$25,000		
$0		
San Jose-Sunnyvale-Santa Clara, CA	Austin-Round Rock, TX	Kansas City, MO-KS
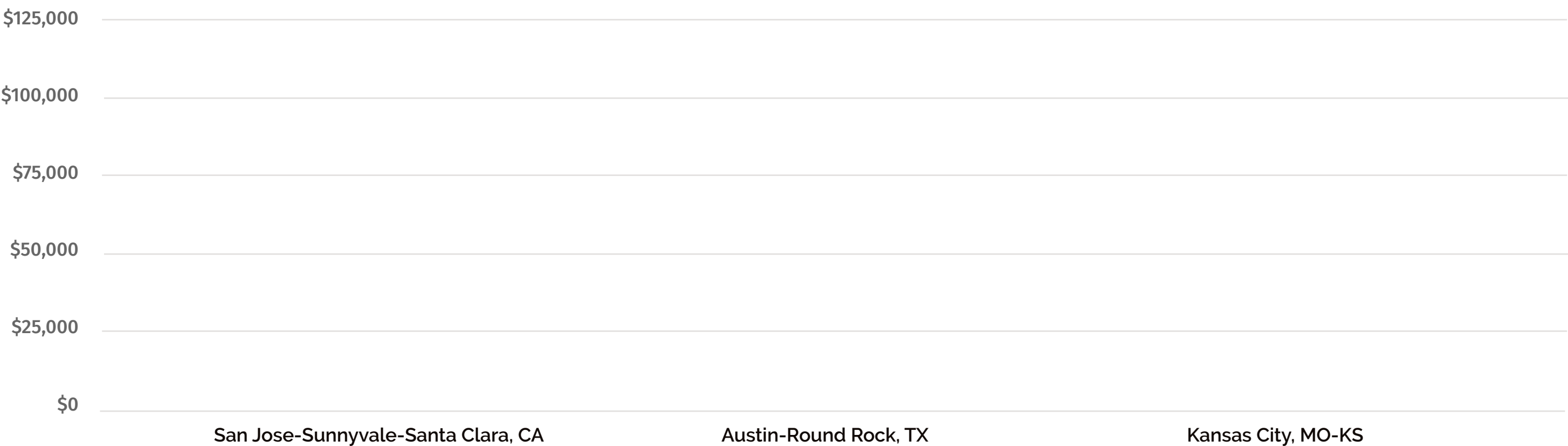
Source: LaborIQ® by ThinkWhy

Job Requirements & Salary Impact by Location

☐ Indicates salaries that are closest to a $110,000 budget

SAN JOSE-SUNNYVALE-SANTA CLARA, CA

Degree	Experience			
	<6 months	1-2 years	4-6 years	8-10 years
Associates	$100,977	$116,242	$135,599	$153,858
Bachelors	$108,725	$122,439	$140,214	$156,803
Masters	$130,995	$140,387	$152,997	$164,315

Source: LaborIQ® by ThinkWhy

KANSAS CITY, MO-KS

Degree	Experience			
	<6 months	1-2 years	4-6 years	8-10 years
Associates	$70,549	$81,117	$94,451	$107,481
Bachelors	$76,009	$85,467	$97,653	$109,566
Masters	$92,090	$98,206	$106,571	$115,107

Source: LaborIQ® by ThinkWhy

AUSTIN-ROUND ROCK, TX

Degree	Experience			
	<6 months	1-2 years	4-6 years	8-10 years
Associates	$78,758	$91,516	$108,062	$123,695
Bachelors	$85,259	$96,718	$111,937	$126,174
Masters	$104,207	$112,037	$122,753	$132,664

Source: LaborIQ® by ThinkWhy

INTERACTIVE TIP: Scroll over the outlined boxes in the charts on this page to learn more.

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Diversity
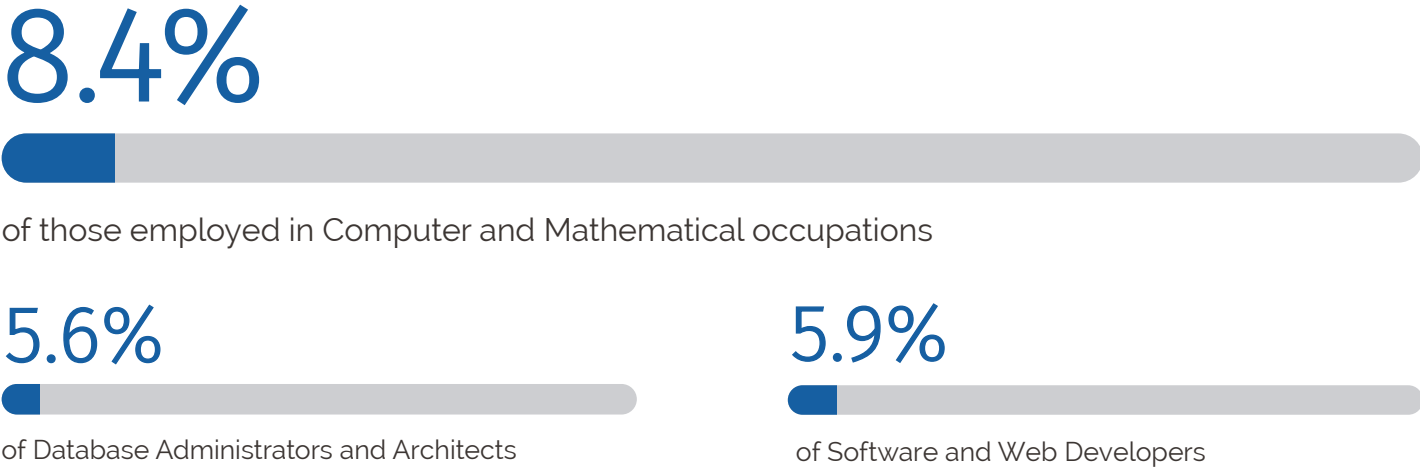## Challenges in Hiring Technology Roles

Hiring for diversity employment in technology fields can prove to be challenging, especially for hiring enough women and Hispanic candidates to meet the benchmarks of the local   . The following visuals provide a breakdown of the employment base by gender and race for technology roles, relative to the overall U.S. employment base for all roles.
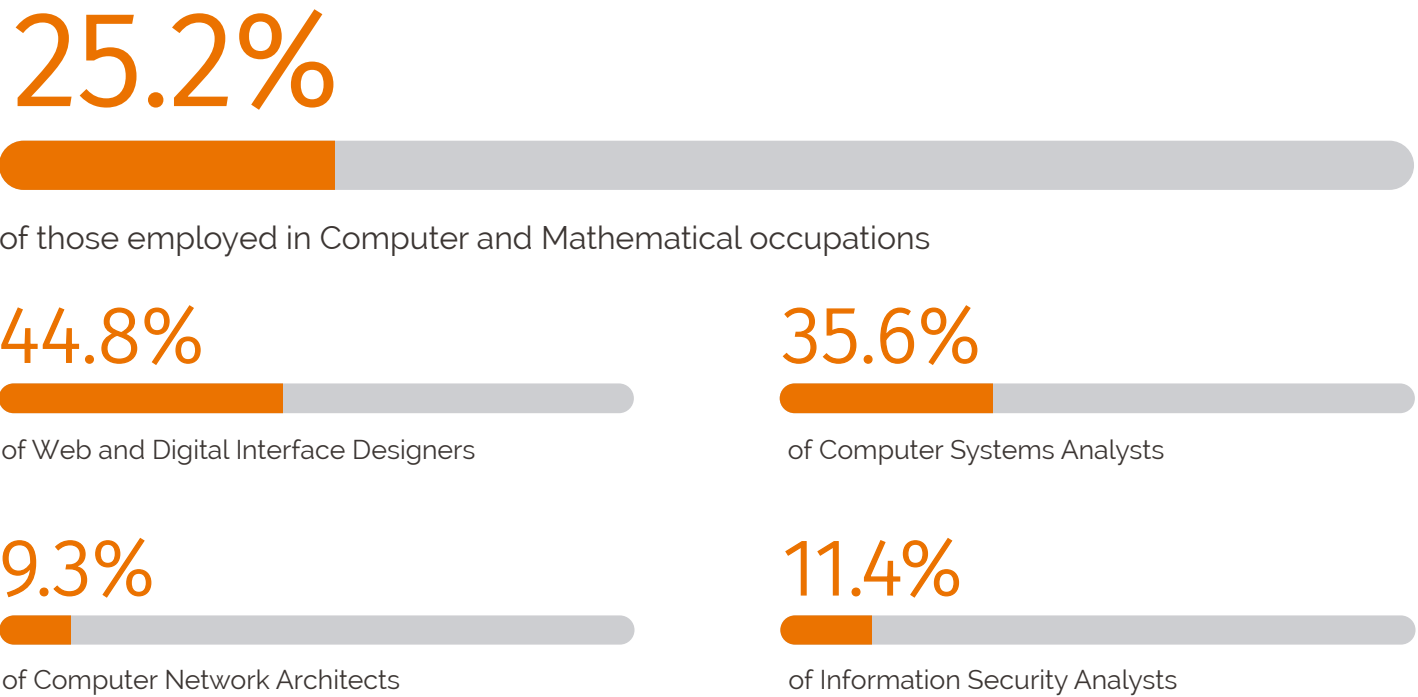
For meeting diversity initiatives, it is important to understand what the   represent in your local labor market. Given that technology encompasses specialized roles requiring specific skills, additional training and education programs may be required to bring the numbers closer to the overall   . This, along with equal opportunity hiring.

WOMEN IN TECH | 2020   *Source: Bureau of Labor Statistics*

25.2%

of those employed in Computer and Mathematical occupations

44.8%

of Web and Digital Interface Designers

35.6%

of Computer Systems Analysts

9.3%

of Computer Network Architects

11.4%

of Information Security Analysts

HISPANICS IN TECH | 2020   *Source: Bureau of Labor Statistics*

8.4%

of those employed in Computer and Mathematical occupations

5.6%

of Database Administrators and Architects

5.9%

of Software and Web Developers

INTERACTIVE TIP: Scroll over the statistics on this page to learn more.

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COMPARISON OF OCCUPATIONAL EMPLOYMENT BASE FOR TECHNOLOGY ROLES BY GENDER AND RACE

Occupation	Total Employed	Percent of Total Employed				
		Women	White	Black or African American	Asian	Hispanic or Latino
All Occupations, 16 years and over	**147,795**	**46.8**	**78.0**	**12.1**	**6.4**	**17.6**
Professional and Related Occupations	**36,502**	**57.0%**	**76.5%**	**10.5%**	**10.1%**	**10.1%**
Computer and Mathematical Occupations	**5,603**	**25.2%**	**65.4%**	**9.1%**	**23.0%**	**8.4%**
Computer Systems Analysts	594	35.6%	68.0%	9.7%	18.7%	8.1%
Information Security Analysts	137	11.4%	79.8%	11.9%	6.9%	15.8%
Computer Programmers	417	21.1%	63.9%	6.3%	28.3%	6.6%
Software Developers	1,883	19.4%	57.5%	6.2%	34.1%	5.9%
Software Quality Assurance Analysts and Testers	82	25.1%	57.6%	12.0%	29.6%	9.2%
Web Developers	104	27.8%	79.3%	3.7%	16.2%	5.9%
Web and Digital Interface Designers	70	44.8%	81.7%	5.9%	9.9%	15.8%
Computer Support Specialists	660	25.9%	72.2%	13.0%	10.7%	11.6%
Database Administrators and Architects	121	28.8%	62.1%	5.9%	30.1%	5.6%
Network and Computer Systems Administrators	238	19.8%	77.3%	9.0%	11.8%	7.8%
Computer Network Architects	107	9.3%	67.8%	14.8%	15.5%	16.1%
Computer Occupations, All Other	792	28.0%	67.3%	13.3%	15.8%	11.2%
Operations Research Analysts	156	42.9%	77.5%	13.6%	8.6%	9.5%
Statisticians	61	50.3%	60.4%	7.9%	28.0%	2.0%
Other Mathematical Science Operations	103	37.8%	63.6%	9.3%	25.7%	6.2%

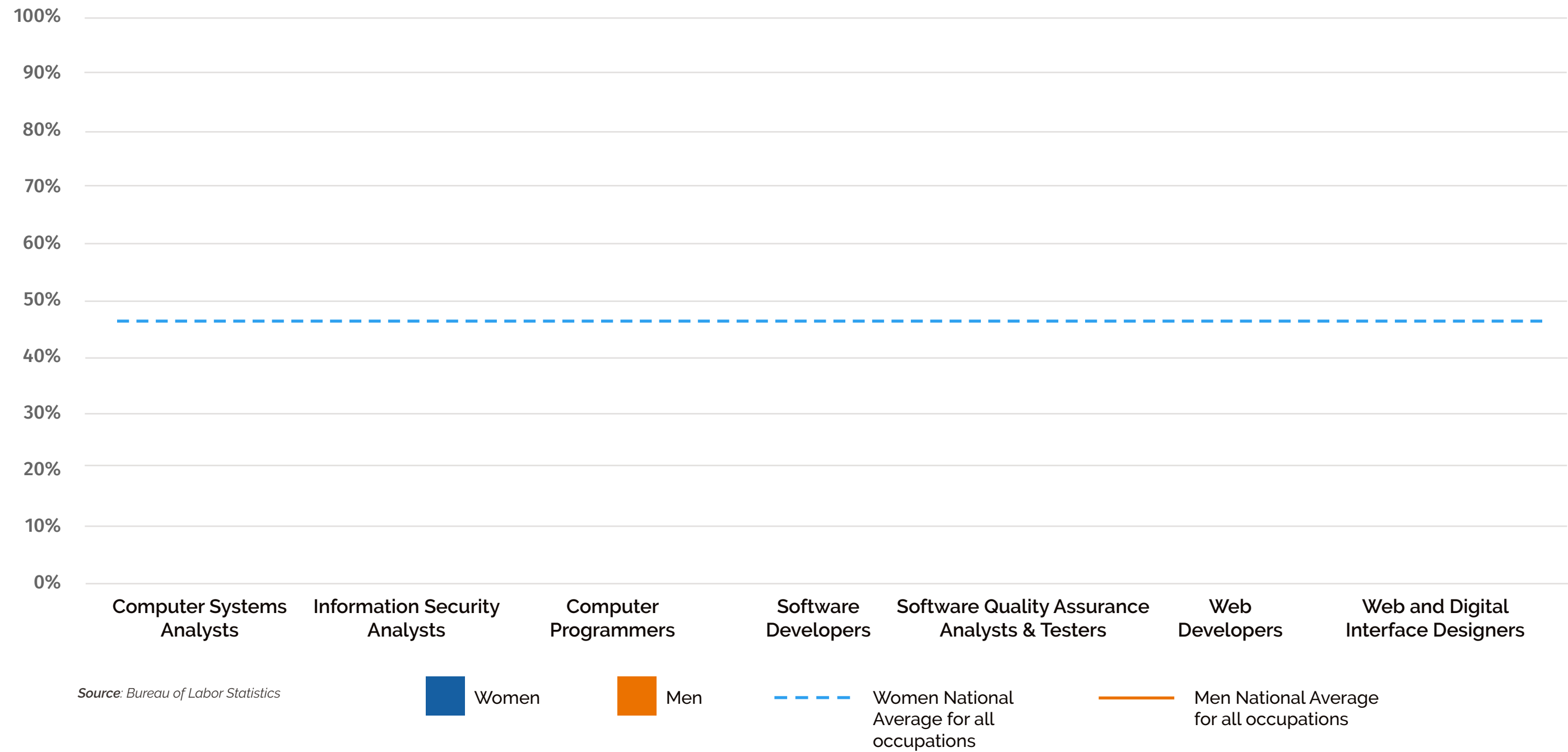National Benchmark for all employees   Highest percentage for each demographic   Lowest percentage for each demographic

Source: *Bureau of Labor Statistics*

INTERACTIVE TIP: Scroll over the outlined boxes in the chart above to learn more.

COMPARISON OF OCCUPATIONAL EMPLOYMENT BASE FOR TECHNOLOGY ROLES BY GENDER

100%						
90%						
80%						
70%						
60%						
50%						
40%						
30%						
20%						
10%						
0%	Computer Systems Analysts	Information Security Analysts	Computer Programmers	Software Developers	Software Quality Assurance Analysts & Testers	Web Developers	Web and Digital Interface Designers

Source: Bureau of Labor Statistics

- 🟦 Women
- 🟧 Men
- ---- Women National Average for all occupations
- ── Men National Average for all occupations

INTERACTIVE TIP: Scroll over the bars above to see their values.

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Term Definitions

Employment base - The number of employed individuals within a specific occupation reported annually in the BLS Occupational Employment Survey. Calculated by ThinkWhy on a monthly basis.

Recommended salary - Market competitive base salary based on Education, Experience, Industry and Supply for the job in the metro.

Median salary - Refers to the "middle" wage for the job title in the selected industry. Half of the workers earned less than the median salary, and half earned more.

Benchmark rates – the standard or average against which is measured; baseline level.

Supply and demand - Refers to the availability of talent based on the job requirements provided, in addition to unemployment for the occupation and metro.

Working population - Employed individuals between the ages of 15 and 64.
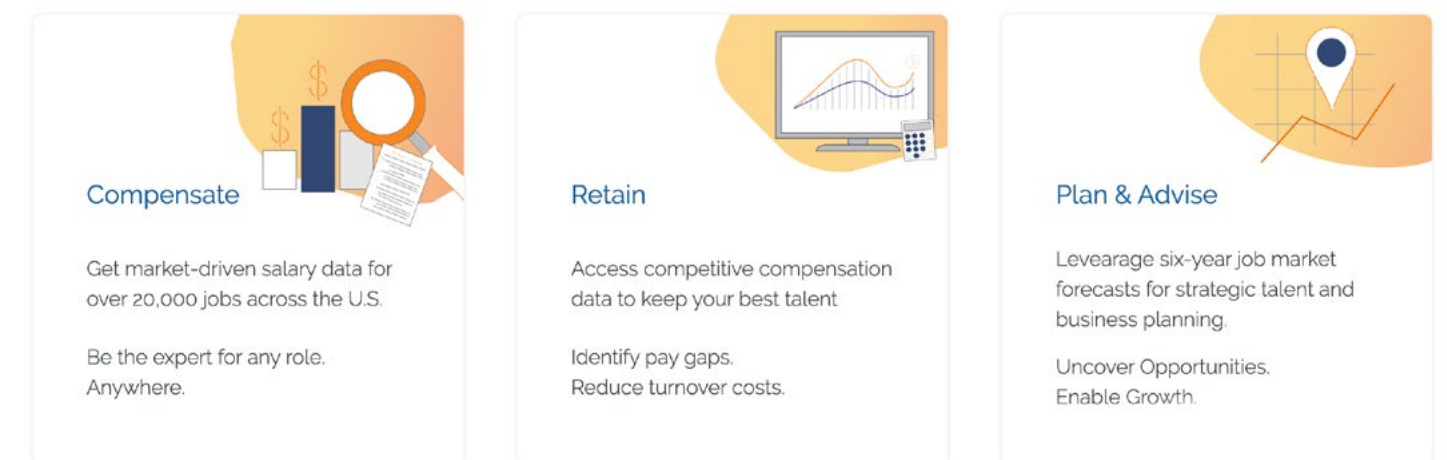
LaborIQ Data Accuracy

LaborIQ **Compensation Answers** are generated through a proprietary **ATILA™ Technology**, combining advanced data science algorithms and machine learning. Through our proprietary data intake process and state and national employment surveys, this method produces 18 trillion data points which are validated against 8.6 million individual pay stubs each month.

This exclusive technology consumes and cleanses unemployment, wage growth, industry, occupational supply and demand, and economic performance data, ensuring accuracy for all job levels and specialties.

Compensation Data

The New Standard for Talent & Market Intelligence
Data-driven, accurate solutions to compensate and retain talent and enhance your business growth.

Compensate

Get market-driven salary data for over 20,000 jobs across the U.S.

Be the expert for any role. Anywhere.

Retain

Access competitive compensation data to keep your best talent

Identify pay gaps. Reduce turnover costs.

Plan & Advise

Levearage six-year job market forecasts for strategic talent and business planning.

Uncover Opportunities. Enable Growth.

ThinkWhy

About ThinkWhy

ThinkWhy's people-inspired focus is on creating a new generation of AI-driven SaaS solutions that transform the labor market for employers and job seekers.

LaborIQ® by ThinkWhy is a talent intelligence software helping organizations drive people and business growth strategies by providing answers to today's compensation, employee retention and job market forecasts. Powered by advanced AI technology, the platform delivers unequaled ease, accuracy and unlimited access to all U.S. cities and over 20,000 job titles.

For more information, visit **www.thinkwhy.com**.

LaborIQ Solutions | How It Works