

TEXAS TALENT EXPERTS REPORT

ADDRESSING THE TECH TALENT SHORTAGE

Using apprenticeships to meet the tech industry's hiring demand of today

PREPARED FOR

Economic development, workforce development, and industry leaders

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EXECUTIVE SUMMARY

Workforce Solutions Capital Area (WFS) convenes tech industry leaders through the [Capital Area Technology Workforce Coalition](#). With talent supply challenges exacerbated after the pandemic, tech executives in the coalition voiced that they are having trouble recruiting and retaining mid to senior-level roles.

- According to the Bureau of Labor Statistics, the U.S. will reach a **1.2 million** software engineering shortage by 2026.
- In the Austin metro, there are **7.5x** the amount of open job postings in IT compared to jobless residents previously in IT.
- **Over 74%** of tech/IT jobs require post-secondary training or a 4-year degree. **Only 60%** of job seekers meet those qualifications.

Solutions for immediate impact are skills-based hiring and earn-and-learn models. Integrating a skills-based approach as a pillar to your existing hiring strategy enables you to reach deeper into a local, diverse pipeline created to your standards that positively impacts your bottom line quickly.

- **Robin Singh**, CEO of Aspire Digital, noted that the company's first apprenticeship cohort implemented with the guidance of WFS became billable — or at a skill level for clients to pay for their time — in one year. With commitment to the program, they've decreased the time until apprentices are ready to be billable by up to **75%**, or down to three to six months.
- "We've streamlined the entire program from low value-add projects to higher rigor more quickly," said Singh. "Initially, the company was setting the pace for the apprentices. Now it's set by the apprentices themselves, and we see higher quality work earlier in their tenure with us."

Why it matters: Armed with these insights, we can help tech companies identify pathways that help grow new local talent and upskill the current workforce into leadership positions.

- **For workforce development:** By connecting data to workforce service delivery, our region can increase residents' access to higher-paying jobs through in-demand career pathways in tech.
- **For economic development:** Businesses and organizations can better understand the local business climate, particularly industry growth and expansion.
- **For industry:** Businesses can better understand the employment landscape — who's hiring, the competition for talent in fast-growing industries, and where to look for strategies to attract and retain local talent.

GROW YOUR BUSINESS THROUGH TALENT: If you're ready, we can connect you to the earn-and-learn apprenticeship model that works best for your company. [Get started.](#)

PART 1

THE SITUATION: TECH TALENT SHORTAGE

Global & Local Challenges

Today’s tech talent shortage is a global and multi-pronged challenge comprised of hiring, retention, and upskilling.

Through local wisdom gleaned from tech leaders through the [Capital Area Technology Workforce Coalition](#) — led by Workforce Solutions Capital Area (WFS) in partnership with various tech employers — two of the biggest challenges are recruiting and retaining mid to senior-level roles.

But tech industry leaders are looking for talent in these mid-senior level roles that doesn’t exist.

Tech companies have traditionally looked for pedigreed talent (four-year degrees with minimal experience), but this constricts the talent pool by thousands of people. Coupled with COVID, this exacerbated the labor shortage and inflated the competition for talent to unattainable levels. Mid-sized companies suffer the most, unable to match compensation packages from large companies for high-skill employees.

Simply put, the talent demand of today far exceeds the supply of skilled workers in every market, and Austin is no exception.

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NATIONAL

1.2M

The US will reach a 1.2 million software engineering shortage by 2026¹

AUSTIN METRO

7.5x

Open job postings in IT² compared to jobless residents³ previously in IT

AUSTIN METRO

74%

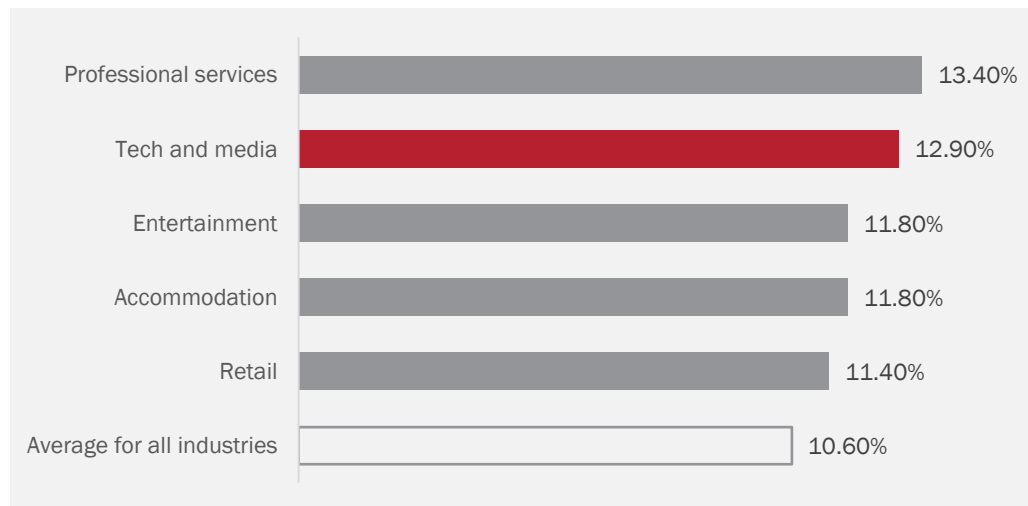
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Sources:

1. Bureau of Labor Statistics
2. Labor Insight (unemployed as of July 2022; does not include gig workers)
3. JobsEq (job postings as of July 31, 2022)

RETENTION: INDUSTRIES WITH ABOVE-AVERAGE TURNOVER RATES

Average turnover rates across industries on LinkedIn globally, July 2021 – June 2022



Source: LinkedIn (turnover is calculated as the total number of departures divided by the average headcount)

PART 2

THE SOLUTION: TECH APPRENTICESHIP

Apprenticeship Overview

Apprenticeship is an industry-driven, high-quality career pathway where companies can develop and prepare their future workforce. Through apprenticeship, individuals can obtain paid work experience and receive progressive wage increases, related classroom instruction, and a portable nationally-recognized credential.

Workers are needed now. The best approach to prepare a ready tech talent pipeline is to develop employees over time and rethink how we build local talent from the ground up.

Solutions for immediate impact are skills-based hiring and earn-and-learn models.

Integrating a skills-based approach as a pillar to your existing hiring strategy enables you to reach deeper into a local, diverse pipeline created to your standards that positively impacts your bottom line quickly.



Where do we get new talent? [Click here](#) to see how transferable skills can translate to target occupations.

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— **Robin Singh**, CEO at Aspire Digital

INTERNSHIP VS. REGISTERED APPRENTICESHIP

1 big takeaway: Apprenticeship is long-term (internships are short-term) to fill existing workforce needs instead of providing short-term work experience.

	INTERNSHIP	REGISTERED APPRENTICESHIP
Provides paid work experience	Maybe	Yes
On-the-job training is directly related to what a student is studying	Maybe	Yes
Includes intentional mentoring by an experienced professional	Maybe	Yes
Can receive college credit	Maybe	Yes
Requires classroom instruction/college courses as part of the program	No	Yes
Ensures that students gain skills and knowledge for a specific job	No	Yes
Results in at least one nationally-recognized, portable credential or certification	No	Yes
More than 90 percent of participants become full-time employees upon program completion	No	Yes

Source: Adapted from Apprenticeship.gov

Tech Talent Incubation

To ensure apprenticeship can work in the context of full career pathways, WFS has used data-backed expertise to assist employers as they build their workforce from entry-level to leadership positions.

WFS regularly analyzes the regional labor market, looking for industry and occupational trends. Based on this analysis, we have identified [in-demand industries](#), [in-demand occupations](#), and [targeted occupations](#). These lists also are used to guide the investment of workforce program funds for training.

WFS TARGETED OCCUPATIONS: INFORMATION TECHNOLOGY

Austin MSA, 2022Q1¹

SOC	Occupation	Current			5-Year History		10-Year Forecast		
		Empl	Median Ann Wages ²	Online Job Ads ³	Empl Change	Ann %	Total Demand	Empl Growth	Ann % Growth
13-1082	Project Management Specialists	10,880	\$96,900	n/a	6,413	19.5%	12,126	3,228	2.6%
15-1232	Computer User Support Specialists	9,695	\$49,700	1,349	2,564	6.3%	10,981	3,016	2.7%
15-1244	Network and Computer Systems Administrators	4,101	\$80,800	988	530	2.8%	4,039	1,093	2.4%
15-1212	Information Security Analysts	2,233	\$84,500	283	939	11.5%	3,369	1,392	5.0%
15-1254	Web Developers	1,290	\$79,200	285	799	21.3%	1,484	419	2.9%
15-1242	Database Administrators	1,207	\$98,600	157	687	18.3%	1,356	367	2.7%

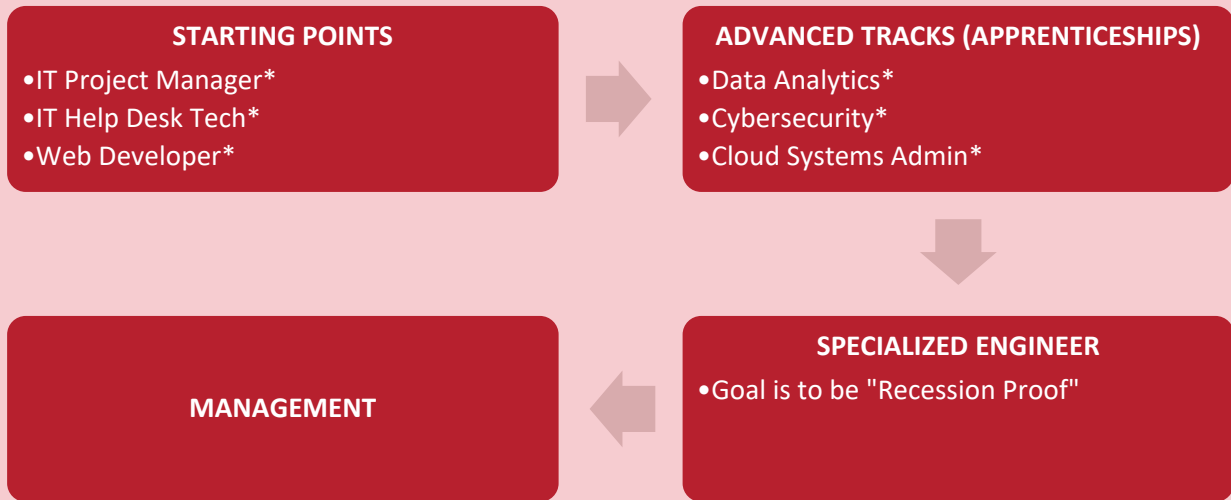
Source: JobsEq (data as of 2022Q1 unless noted otherwise; figures may not sum due to rounding)

1. Data based on a four-quarter moving average unless noted otherwise.
2. Wage data are as of 2021 and represent the average for all Covered Employment
3. Data represent found online ads active within the last thirty days in the selected region; data represents a sampling rather than the complete universe of postings. Ads lacking zip code information but designating a place (city, town, etc.) may be assigned to the zip code with greatest employment in that place for queries in this analytic.

Armed with this data, we can help your company identify pathways that help grow new local talent and upskill your current workforce into leadership positions. We can package a pathway fit for a specific employee or give your company flexibility to apply a la carte to full departments.

CONTEXTUALIZING A CAREER IN TECH

For job seekers with no experience in the tech industry, WFS aims to simplify and contextualize pathways into higher-earning careers and build the community workforce. These efforts also help employers understand how an employee can be upskilled and retained once hired.



**Indicates Registered Apprenticeship*

PART 3

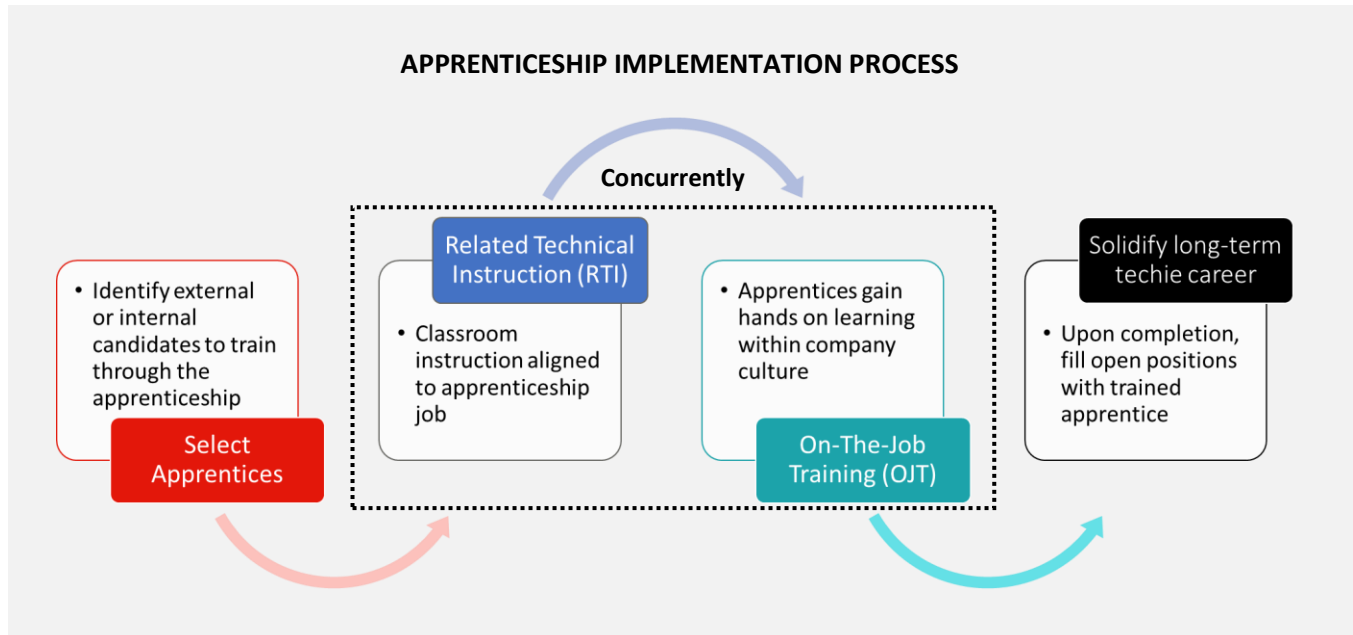
APPRENTICESHIP IMPLEMENTATION

Getting Started

Workforce Solutions Capital Area can help you at various points during the process tailored to your needs.

- **For incumbent workers,** an employer generally starts by registering its employees in an apprenticeship program, where they receive training from a local training provider with wages paid by the employer.

- **For external hires**, the employer works with Workforce Solutions and the training provider to write the job description, typically promoted to the pool of pre-apprentices enrolled in an existing local training program. The employer receives applications from an existing pre-apprenticeship cohort and then goes through the hiring process as usual, with qualified, pre-vetted leads with the needed foundational hard and soft skills.



About Workforce Solutions Capital Area (WFS):

WFS is the leadership and governing body for the Austin-Travis County workforce system. We are responsible for the data-driven planning, oversight, and evaluation of workforce development activities in Austin-Travis County. Simply put, we connect local people to the most in-demand industries with quality jobs.

By understanding where local employers see the greatest need for talent, WFS is helping focus our community’s workforce development efforts to build the talent pool while addressing affordability and equity concerns through immediate economic advancement opportunities. We are proud to continue researching and sharing labor market information to drive workforce investment where it is needed most.

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