TEXAS PUBLIC POLICY FOUNDATION
Testimony

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Next Generation Texas

Testimony Before the U.S. Subcommittee on Economic Growth, Energy Policy, and Regulatory Affairs

By Erin Davis Valdez

Chairman Fallon, Ranking Member Bush, and Members of the Subcommittee,

Thank you for this opportunity to testify before you today about the challenges around the affordability of postsecondary education and the importance of supporting earn-and-learn opportunities and career and technical education programs as cost-effective alternatives.

I'm Erin Davis Valdez, and I'm a policy director at Texas Public Policy Foundation. My research has focused on career and technical education, workforce development, and higher education related issues and policies in Texas. I'll provide an overview of the issues at the national level and highlight some solutions at the state and local levels.

Introduction

The U.S. spends $1.1 trillion each year on training and education for individuals who have already completed high school. More Americans than ever hold bachelor's degrees—about 38% of those over 25, and 43.5 million Americans are carrying federal student loans they took out in the hope that a degree would offer a pathway to higher-paying jobs.

And yet, employers can't find qualified employees to fill the estimated 9.6 million jobs they have open. There are 6.4 million unemployed workers, and 1.47 million fewer workers in the labor market than just prior to the pandemic.

According to Pew Research's analysis of data from the Federal Reserve Bank of New York, "recent college graduates are more likely than graduates overall to be underemployed."

According to research by Preston Cooper:

> "When accounting for the risk that a student will take longer than four years to finish college, or drop out entirely, median ROI drops to $129,000**. Twenty-eight percent of bachelor's degree programs have negative ROI when adjusting for the risk of non-completion.** If ROI is adjusted to reflect the underlying cost of education, not just tuition charges, the share of non-performing programs rises to 37%."

The need for some postsecondary training is clear—the National Skills Coalition estimates that 52% of jobs require some training beyond high school. The difference between the skills students obtain in high school and postsecondary education and the skills required by available jobs is called the "skills gap."

While the cost of the skills gap to the economy is high, the cost to individuals and their communities is higher.

Today, I'd like to draw this committee's attention to the "skills gap" in private sector occupations that a) require some postsecondary education but not a bachelor's degree, b) offer above median wages (jobs that have sometimes been called "middle skills" occupations, and c) are in high demand. I'll conclude with promising solutions to help more Americans achieve the American Dream.

What Is the Skills Gap?

There are many ways to document the gap between skills provided in vocational or pre-professional educational programs and the skills that employers seek. One way to understand this gap is to look at the number of students who complete a program of study versus the number of available job openings in that career field.

High School Career and Technical Education Programs vs Job Openings

The beginnings of the skills gap can be traced to high school or secondary programs. Career and technical education—what used to be called "vocational"—programs in Texas and nationally are poorly aligned with regional demand, especially for so-called high demand middle-skills occupations.

Under the federal law that funds secondary and postsecondary career and technical education, Perkins V, there are sixteen career clusters, and within each cluster are multiple distinct programs of study. Students who complete more than three courses in a program of study are classified as "concentrators."

Below, we contrast the gap between workforce demand and concentrators in two graphs. **Figure 1** displays the ratio of open, private-sector, non-seasonal[1] jobs vs. career and technical education concentrators.[2] **Figure 2** shows the gap between workforce demand and concentrators in four "middle skills" clusters that do require some postsecondary training but not a four-year or advanced degree and that generally offer above-median wages early in the career progression. We used data from the Bureau of Labor Statistics' Career Outlook Report to assess median wages and amount of education required.

Figure 1

Ratio of Open Private Sector, Non-Seasonal Jobs vs Secondary Career and Technical Education Concentrators

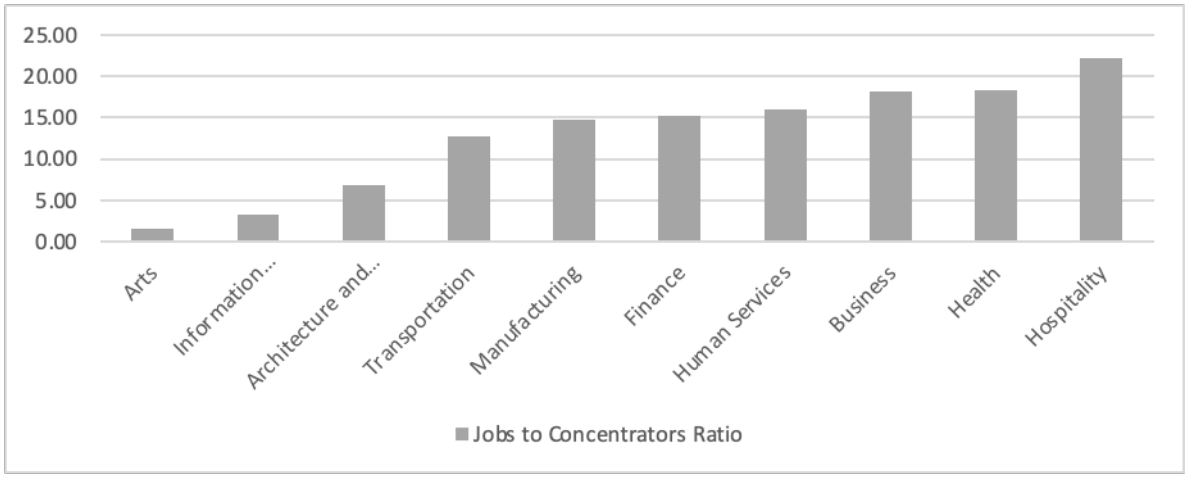
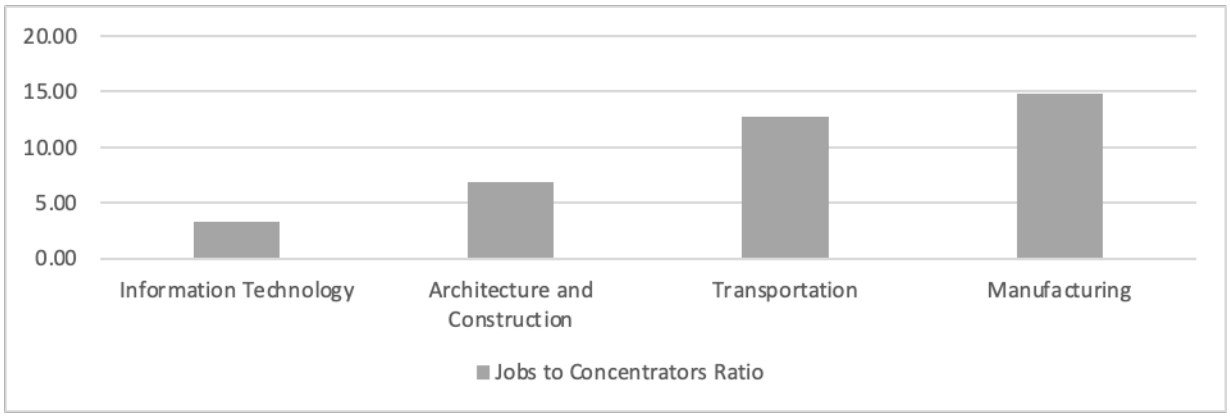


Figure 2 displays the ratio of all concentrators in programs of study that fall within four "middle skill" career clusters and the number of open jobs in related industries.

1 Agricultural programs, which can include instruction in related skills to other hands-on fields, can't be included in the concentrator-to-openings ratio because the Bureau of Labor Statistics does not individually categorize agricultural jobs from its calculations of annual job openings. Science and technology and marketing span industries and the BLS doesn't employ them as distinct industry classifiers. Government and education are excluded because this analysis focuses on private sector gaps. Marketing spans a number of industries and BLS doesn't track it as a separate occupational category.

2 U.S. Department of Education. (n.d.). CTE Concentrator Enrollment. Retrieved October 20, 2023 from https://perkins.ed.gov/pims/DataExplorer/CTEConcentrator. and U.S. Bureau of Labor Statistics. (2023, October 3). *Economic News Release: Table 1. Jobs Openings Levels and rates by industry and region, seasonally adjusted.* https://www.bls.gov/news.release/jolts.t01.htm. (October 20, 2023).

Figure 2
Middle Skills Gaps in Secondary Career and Technical Education



Gender Gap

There is a notable gender gap in student preferences for career clusters. According to a report by Fordham Institute (2019):

> "…male students take far more courses in STEM; Manufacturing; Architecture & Construction; and Transportation, Distribution & Logistics. Conversely, female students take significantly more courses in Health Science; Human Services; Education & Training; and Arts, A/V Technology & Communications."

Comparing these categories with **Figures 1 & 2** above, we see that clusters that are most attractive to male students overlap with the "middle skills" fields, and the clusters most attractive to females either require four-year degrees (like nursing and teaching) or human services, a cluster which does not typically offer above-median wages. According to the Pew Research Center, women now outnumber men in the college-educated workforce, which accords with their preference for CTE programs that lead to college-educated jobs.

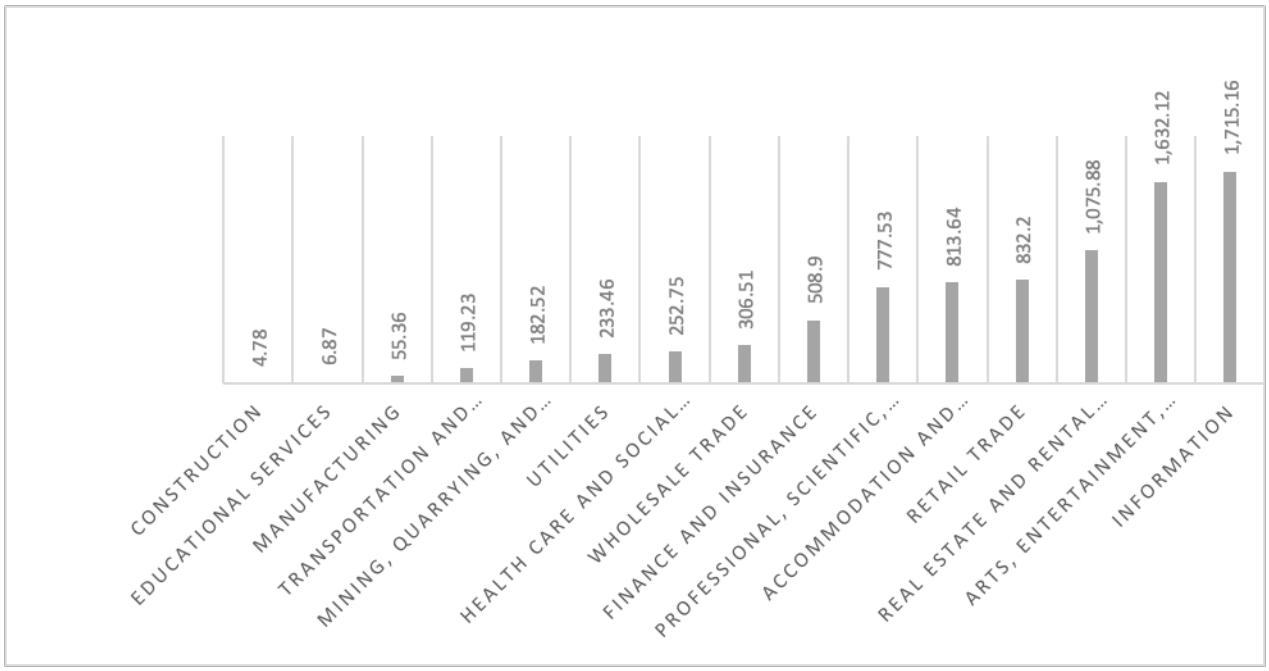
Registered Apprenticeships

One prominent alternative postsecondary pathway is apprenticeship. While this mode of learning extends deep into human history, the term as its meant in policy discussions typically refers to New Deal-Era legislation, the National Apprenticeship Act of 1937, which created the Registered Apprenticeship Program (RAP). This program emerged from a prior Progressive Era education law, the Smith-Hughes Act of 1917, which expanded the federal government's scope by funding vocational training and technical high schools. Both these federal laws were the result of organized labor's advocacy. The Brookings Institution traces their motivation to union leaders' fears that automation made it too easy for less experienced (and younger) workers to replace them, and by creating additional qualifications (including extensive time-based requirements) for younger workers to enter the trades, they limited competition with incumbent workers. Unions have historically opposed pre-apprenticeships and other programs that allow students still in high school to enter the workforce without significant post-secondary training. Recent legislation to expand pre-apprenticeships in Texas high schools has faced strong organized labor opposition.

Registered apprenticeships are simply not scaling to meet private sector workforce needs, as can be seen in **Figure 3**. There are likely many causes for this, including that employers in many cases find the red tape and potential entanglement with unions daunting. Construction RAPs (accounting for 32% of all active apprenticeships in 2023) take between two and four years to complete. The history of RAP suggests that this is a feature, not a bug, of the program. While rapid and flexible pathways from school to work[3] may not be a priority of some stakeholders, young Americans and our economy deserve better.

3 Lerman 2012, p. 11.

Figure 3
Ratio of Job Openings to Apprenticeship Completers



As noted above, construction trades predominate the RAP, accounting for 31% of all apprenticeship completers in 2022. While the ratio of completed construction apprenticeships is low compared with other industries (about 5 openings per apprenticeship completer), the number of open roles in Q2 of 2023 was 1.4 million—over a million more openings than completers.

The scale of the demand for skilled workers in private sector, middle-skills occupations is staggering, and programs that employers can readily access and that can rapidly reskill and upskill workers are needed.

What Are the Costs of This Misalignment?

The skills gap could cost the economy up to $1.2 trillion by 2029, according to one estimate. Vacant positions cost individual businesses dearly at a time when labor force participation has declined by 1.4 million workers since February 2020.

Americans are losing faith in higher education as the student loan crisis grows, and with the labor market remaining tight, many young Americans are forgoing additional postsecondary education for service-industry jobs that don't require additional training.

Young men in particular are turning away from higher education, with about three women for every two men enrolling in college. A bipartisan consensus is growing that males are being left behind in workforce and education. Two recent books, *Men Without Work*, by Nicholas Eberstadt of the American Enterprise Institute, and *Of Boys and Men,* by Richard Reeves of the Brookings Institution, document the extent and cost of this disengagement while coming to different recommendations to address the issue. Eberstadt notes that 11% of men ages 25-54 are neither employed nor looking for work,[4] and Reeves points out that "almost one in four boys (23%) are categorized as having a 'developmental disability,'"[5] and that women outnumber men in bachelor's degree attainment by 14%.

4 p.11

5 p. 8

Without meaningful work, individuals may face more than just limited economic mobility—they may have poor health outcomes, become justice-involved, and face other challenges that diminish their potential and are costly to their communities.

What Are the Reasons for This Misalignment?

Education, in the broadest sense, ought to equip individuals for self-government and for flourishing lives in community. In earlier times, it was known as liberal education and aimed at the discovery of truth in dialogue with others. While I distinguish basic education in reading, writing, literature, math, and history from vocational or pre-professional training for the purposes of this policy discussion, I believe the stark division between the two kinds of learning gives too much credence to a cultural myth that manual labor does not require the cognitive skills that "knowledge work" does.[6]

Systems entrusted with providing basic education have failed, as our Nation's Report Card reminds us on a regular basis. Higher education institutions that once justified their existence as caretakers of the liberal arts long ago gave up on this mission.

As outlined above, our systems haven't been able to deliver pre-professional training particularly well either. What connects the failure of instruction in the liberal arts and the failure of instruction in professional pursuits is that both are disconnected from their missions.

In the case of the liberal arts, faith in the pursuit of truth in dialogue with others—both past and present—has given way to narrow "studies" that do not point students to their common humanity but instead seek to divide them into tribes. Higher education institutions further undermined their credibility as defenders of liberal education by embracing pre-professional programs in the early to middle 20th century. Academic programs are, as described below, time-bound. Like organized labor, higher education does not have an incentive to embrace modes that accelerate student learning.

Inputs, Not Outcomes

Since the early years of the 20th century, K12 and collegiate systems have depended on credit hours or "Carnegie Units" to measure and award academic credits and fund educational systems. The model is based on an input—the amount of time a student spends being instructed by a credentialed teacher. Time-based systems serve the providers of instruction by ensuring that they have a guaranteed amount of funding for provision of instruction.

Further cementing the role of inputs in our educational systems are accreditors. These private entities are the gatekeepers of federal funding, including Pell Grants and student loans. As my colleague Dr. Andrew Gillen documents in his research, although these bodies are supposed to provide the public an assurance of the quality of institutions receiving taxpayer funds, they fail at this core function. According to Gillen, "accreditors have sought to ensure a minimum quality by mandating a 'recipe' for higher education in the form of inputs (e.g., tenured faculty), processes (e.g., seat-time based programs), and governance (e.g., faculty senates)."[7]

The federal government does require accreditors to establish standards to measure "student achievement," but accreditors allow universities to define this metric however they choose.[8] The federal government does *not* require accreditors to measure whether students leaving accredited institutions have positive employment outcomes.

Aligning Systems With Student Outcomes

There are many promising solutions that will improve our vocational and pre-professional systems by rewarding providers based on student success. The examples I provide are by no means exhaustive but are meant to demonstrate the variety of approaches that are required to address this important issue.

6 See Crawford, pp. 21-28.

7 Gillen 2020 p. 5

8 Ibid p. 6

The Returned-Value Funding Model

In Texas, we have an example of what is possible when technical education shares the same incentives as the business and students they serve. It's called the Texas State Technical College system. It is a state technical college, funded by taxpayers, but is not classified as a community college. TSTC's former students are in such high demand by employers that they are frequently recruited before finishing their full course of study. TSTC offers a "get a job or get a refund" promise for nine of its degree and certificate programs. Unlike other higher education institutions in Texas, TSTC's appropriation is based on the "value add" of its former students to the Texas economy, not contact hours. My colleague Jorge Borrego and I published research on this model recently. In a nutshell:

> TSTC's appropriation is the aggregate of TSTC's "value add," as calculated by its direct and indirect contributions to the state's economy for each cohort member. A cohort is comprised of graduates, transfers, and leavers in a designated year. A cohort member's direct and indirect contributions are determined by their incremental wage—that is, their wages after finishing the program minus the minimum wage. (Incremental wages are calculated for the first five years after finishing the program.) The additional tax revenue from this higher wage is determined (including a small, assumed spillover effect), and the state and TSTC split the higher tax revenue, with TSTC getting a commission rate of 36 percent.

Scaling this model to other institutions could take the form of employing measures of student learning for academic-focused programs and earnings outcomes for career-focused programs.

Better Accountability for Higher Education and Workforce Systems

Dr. Andrew Gillen's research points towards promising higher education accountability metrics such as debt as a percentage of earnings (median student loan debt as a percentage of median earning) and repayment rates. We encourage lawmakers to hold all institutions of higher education—public, private, nonprofit and for-profit—accountable when programs that they offer create excessive debt relative to student earnings.

Improving Accreditation

Until recently, it wasn't possible to produce an independent assessment of accreditors based on the economic outcomes of students, but it now is. Dr. Gillen's research uses U.S. Department of Education data to examine the median earnings and debt of graduates by institution and major, and examines accreditors based on whether the programs they approve leave students in excessive debt. States should consider imposing their own student economic outcomes standards on accrediting bodies that accredit their public institutions.

While prior efforts from existing accreditors to voluntarily adopt student outcome metrics have failed, the U.S. Department of Education should approve new accreditors that use outcomes-based standards.

Pell Grants for Short-Term Programs

Pell Grants, which were created to help low-income students access higher education, cannot be used for programs that are shorter than 15 weeks. This restriction leaves out many certificate programs that could provide faster tracks to work. However, my colleague Jorge Borrego, who recently published research on this topic, cautions:

> Extending Pell Grant eligibility to all short-term programs would open the federal funding spigots to many programs with low or even negative labor market value while continuing to forbid eligibility for any short-term program restricts access to programs with high value. The solution is to expand eligibility to short-term programs but to pair the expansion with tough accountability measures that will ensure that taxpayer funding cannot be used for programs that have little labor market value.

Borrego's research includes an analysis of short-term, nondegree credential programs and their impact on wages.

Employer-Driven Earn-and-Learn Programs

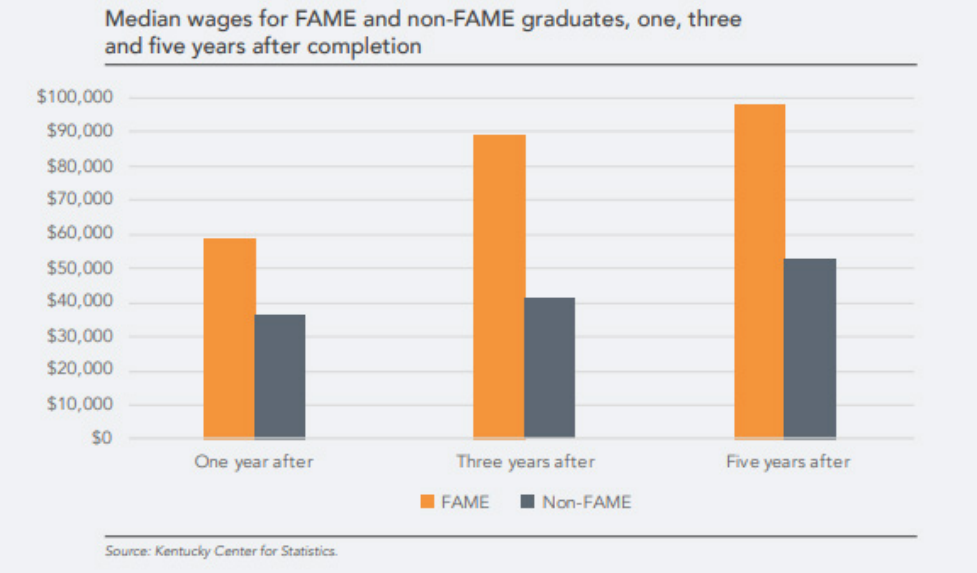
According to Georgetown University's Center on Education and Workforce, employers have spent 26% more on private training between 1994 and 2013. Employer-driven programs are attractive to businesses who may have needs for short-term reskilling or upskilling for specific roles or to fill positions for which they are not otherwise able to find qualified workers.

Federation for Advanced Manufacturing Education

The Federation for Advanced Manufacturing Education (FAME) is a nonprofit workforce development organization that has chapters in 14 states. Their employer-driven model is compatible with both registered and non-registered apprenticeship programs.

A 2020 report published by Opportunity America and the Brookings Institution examined the earnings and employment outcomes of FAME graduates compared to graduates from non-FAME programs. The analysis compared apples-to-apples in terms of participant demographics. The results were astonishing. "Five years after completion, FAME graduates were earning nearly $98,000, compared to roughly $52,783 for non-FAME participants—a difference of more than $45,000 a year."[9] **Figure 4** clearly displays the contrast in graduate outcomes.

Figure 4
Median Wages for FAME and non-FAME Graduates



Source, Jacoby and Haskins 2020, p. 20

The report identified the key distinctions between the FAME program and others: "the work-based learning experience and the intensive involvement by employers—the role they play at every stage, designing the program, identifying what students need to know and overseeing their progress until they complete successfully" (p. 29).

Such cooperation between employers and education providers is not common. But it seems to be a key to unlocking more effective apprenticeship-style programs. In Texas, a recent change in state law, supported by TPPF, allowed the Lone Star FAME chapter to form a partnership with an educational provider of its choice (Texas State Technical College), a first step in opening up more competition in the postsecondary sector.

FAME's program is one of many examples of employers leading workforce development. It relies on sector coordination among multiple employers. But employers who do not have an equivalent program or cooperation in their area are also finding ways to create earn-and-learn opportunities.

9 Jacoby and Haskins 2020, p. 2.

In Baytown, Texas, S&B Constructors has been offering women, veterans, and other learners a 16-week pathway into pipefitting, electrical, and welding occupations within their enterprise through the Craft Education and Development Program. Because students can earn National Center for Construction Education and Research (NCCER) certifications, they have transferable credentials within the industry.

Hire Based on Skills, Not Degrees

For too long, employers viewed college degrees as a proxy indicator for a variety of both hard and soft skills. This employer practice drives demand for degrees (a phenomenon known as "credential inflation") and increases the pressure on students to enroll in (and take out debt for) bachelor's programs. By shifting to skills-based hiring, employers benefit from a larger (70 million strong) applicant pool of workers sometimes called "STARs"—skilled through alternate routes. Already 13 states, led by both Democrats and Republicans, have eliminated degree requirements for many state government jobs in lieu of years of experience.

Reforms to encourage skills-based hiring among private employers and reform hiring by federal agencies are being pursued at the federal level.

Industry-Recognized Apprenticeships

In my 2022 testimony before the Texas Senate Committee on Natural Resources and Economic Development, I noted:

> The Trump administration's Department of Labor created an alternative and more flexible pathway that would have opened more occupations up to apprenticeships, including nursing. It was called the Industry-Recognized Apprenticeship Program (IRAP), and it allowed employers to create their own earn-while-you-learn programs, overseen by "standards recognition entities" (SREs), which were third parties like trade associations. The Biden administration ended IRAP in February 2021, a move that was widely celebrated by trade unions.

IRAP excluded construction trades, which make up almost a third of registered apprenticeships. States could create alternatives to registered apprenticeship programs, overseen by their own workforce agencies. TPPF supported legislation in Texas to do just this in our most recent regular legislative session.

More Options for Secondary Students to Begin Career Pathways

Students are not getting meaningful work-based learning early enough in their educational experience. Promising models and policies to increase "school to work" pipelines include:

- Ensuring that high schools accept dual credit for CTE programs—not just academic programs—at local technical and community colleges. The capital requirements for programs in automotive repair, construction, and manufacturing can be an obstacle for some high schools, but guaranteeing CTE credit transfer can achieve the goal of giving students access to these programs at a lower cost.

- Reforming occupational licensing requirements to allow high school students to start earning course hours toward certification in skilled trade. Texas has recently adopted these reforms in the HVAC, electrical, and plumbing trades.

- Incorporating pre-apprenticeships in high school career and technical education programs. One example of this is a partnership between TRIO Education's electrical pre-apprenticeships with Premier High School, a charter school, in Houston.

- Increasing the variety of high schools to include those that provide students with the kinds of knowledge and experience that make learning interesting for them. One example is Cristo Rey, a national network of Catholic schools. These unique academies combine a rigorous, college-prep curriculum with corporate work study. Students leave high school ready for college *and* with four years of professional experience. Preparation for life and preparation for college do not have to be separate pursuits.

Conclusion

I hope that this survey of the challenges presented by our current postsecondary system and the opportunities afforded by alternative pathways—including earn-and-learn programs, new funding models, and increasing options for high school students—offers this committee fruitful avenues for further research and policy development.

Thank you for this opportunity, and I stand ready to answer any questions or provide additional resources to support your work.

Resources

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Erin Davis Valdez is the policy director for Next Generation Texas, an initiative of the Foundation. She has been passionate about the transformational power of education all her life, having been given the gift of being homeschooled. She taught for over a decade in Austin-area schools and served as an assistant principal at a charter school in Lewisville. These experiences have given her the opportunity to see first-hand how students can thrive when they have excellent options.

Since joining the Foundation, Valdez has conducted research on career and technical education at the secondary and post-secondary levels, civics education, and welfare to work programs in Texas.

Valdez earned an M.A. in classics from the University of California, Santa Barbara and a B.A. in classical studies from Hillsdale College.

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