

The Case for Industry-Specific High Schools

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Key Points

- The urgent need to build a strong pipeline of career-ready high school graduates is growing rapidly, just as more parents, students, and employers are questioning the diminishing value of traditional higher education.
- Increasingly, employers in high-demand and high-growth industries are placing greater value on job-ready skills than on traditional college degrees. Yet the education pathways to these career fields are not keeping pace with the demand.
- To prepare students for real-world success and meet the evolving demands of today's economy, high schools must be intentionally designed with industry-specific focuses that reflect national labor trends and the unique needs of their local communities and regions.

As the price tag of a college degree soars, the perceived value by parents, students, and employers alike is decreasing. A 2024 essay in *The Wall Street Journal* found, “Nearly half of parents say they would prefer not to send their children to a four-year college after high school, even if there were no obstacles, financial or otherwise.” Additionally, the report noted that two-thirds of high school students believe “they will be just fine without a college degree.”¹

Furthermore, the findings of a November 2023 survey revealed that an astonishing 55 percent of US companies eliminated bachelor's degree requirements for employment eligibility.² Instead, employers are valuing skills and experience over education.

Employers face growing challenges filling specialized jobs due to the misalignment between college coursework and the demands of today's technologically driven labor markets. There is a rapidly growing need in high-demand and high-growth industries for employees who possess the necessary technical skills

rather than a college degree. Yet the education pathways to these career fields are not keeping pace with the demand.

Declining Confidence in Higher Education

Even before the widespread and heinous antisemitic demonstrations, violence, and takeovers on college campuses in 2024 and 2025, a mere 17 percent of Americans held a “great deal” of confidence in higher education, while 62 percent had “some” or “very little” confidence.³

Enrollment in higher education has declined by three million since 2011,⁴ with fewer high school students matriculating to college. From 2016 to 2022, the decrease in college enrollment was 8 percent.⁵ Of those entering four-year colleges, only 62 percent graduate within six years.⁶ Upon graduating from college, just 40 percent of individuals secure a job within the field of their higher education degree.⁷

According to the Mountain States Policy Center, “between 1963 and 2021, the cost of attendance at a four-year college rose 165%. Increases can be found in both public institutions, where the average cost is now \$19,374, and private, where students can now pay \$45,920.”⁸ The return on investment of college for career preparation is lacking for the majority of individuals who opt to enroll.

K–12 Education Falls Short of Workforce Needs

Simply forgoing college won’t provide the necessary remedy, as students exit their K–12 schooling unprepared with the specialized skills required for an increasing number of jobs. Furthermore, public school students are not receiving a quality primary and secondary education in the basics, including reading, writing, math, and reasoning. In January 2025, the Nation’s Report Card revealed that among public school students, seven out of 10 are not achieving proficiency in reading or math, according to scores on the National Assessment of Educational Progress.⁹

The dire academic achievement crisis exists despite astronomical and ever-increasing sums of money spent to improve education. In 2024, the US government allocated \$218.4 billion in federal funds to education.¹⁰ When accounting for state, local, and federal spending, total expenditures for public elementary and secondary schools reached \$927 billion in 2020–21.¹¹ According to Pete Hegseth and David Goodwin, “the United States spends more on national defense than China, Russia, Saudi Arabia, India, France, United Kingdom, and Japan combined. Yet America spends even more on school than on defense.”¹²

Among their international peers, American public school students rank ninth in reading, 16th in science, and 34th in math.¹³ The lack of global competitiveness among the United States’ next-generation workforce poses a significant threat to both the strength and stability of the economy and national security. Addressing this challenge is not optional but essential for ensuring America’s continued leadership on the world stage.

Aligning High School to Workforce Needs

It’s time for innovative change. The status quo American high school model, based on Horace Mann’s framework, is largely unchanged since its inception over 185 years ago and is ripe for redesign. Schooling during the ninth through 12th grades should be marked by not only high-quality academic instruction but also hands-on learning opportunities that develop skills for high-growth and high-demand career fields.

To prepare students for real-world success and to meet the evolving demands of today’s economy, high schools must be intentionally designed with industry-specific focuses that reflect national labor trends and the unique needs of their local communities and regions. Aligning education with high-growth sectors ensures that students graduate with relevant skills, employers gain a stronger talent pipeline, and regions become more competitive and economically resilient.

These new high schools could encompass well-established career and technical education fields in the trades, such as electrical work, plumbing, and construction management, which are resistant to automation and unlikely to be replaced by technology. Similarly, training for technical work in the medical field warrants consideration. In addition, industry-specific high schools should be designed to include high-demand, future-focused fields such as engineering, computer science and data analytics, medical technology, digital marketing, food production, energy, advanced manufacturing, and artificial intelligence.

Equipping high school students with entrepreneurship and business skills is also essential, as much of today’s job growth is being driven by startups and small enterprises. Providing students access to unique hands-on learning experiences and industry-specific advanced training will increase engagement and motivation while also serving as an on-ramp to post-high school success.

West Michigan Aviation Academy

An example of an industry-specific high school is the West Michigan Aviation Academy, founded by Dick DeVos in 2010.¹⁴ The tuition-free public charter school is located adjacent to the Gerald R. Ford International

Airport in Grand Rapids, Michigan, and is open to any student statewide, subject to enrollment availability.

For the past 15 years, students have received specialized training in aviation, science, technology, engineering, math, and robotics, alongside an outstanding education in other academic subjects. Students are required to earn at least 26 credits, whereas the state requires only 18 credits to graduate from high school.¹⁵ Advanced Placement; dual credit; early college, career, and technical courses; and up to 20 engineering courses are offered, allowing students to further customize their education. A culture of high expectations, personal responsibility, and respect marks the educational experience.

Students receive outstanding instruction and invaluable learning experiences. An example of the hands-on learning offered by the school is its Build a Plane course, in which students work collaboratively to assemble a Federal Aviation Administration–certified, full-size airplane with approximately 8,000 parts. After completing the project, the school sells the assembled airplane and uses the funds to purchase parts for a new airplane for students to build.¹⁶

As the school’s name implies, students can earn a private pilot’s license while in high school. The classroom instruction and simulator training progress to in-flight instruction and, ultimately, solo flights. In addition to preparing students for careers as pilots, the school also equips students in aerospace design, unmanned aerial systems (i.e., drones), engineering, robotics, and biomedical fields—all of which are in growing demand. After graduation, many students enter the workforce directly, while others matriculate to flight school, military service, or higher education.

DeVos, who continues to be involved with the school, commented,

Some of these students have never been in an airplane before enrolling in the school, but once they experience their first flight, they discover a passion—some going on to become professional pilots. But regardless of the career path chosen, the education students receive at West Michigan Aviation Academy will serve them well.¹⁷

Creating Industry-Specific High Schools

West Michigan Aviation Academy does not need to be an outlier. Its model can and should be replicated and applied to other career fields, particularly those that do not require a college degree.

Partnerships with industry leaders and companies are a natural fit, as strategic investments in creating industry-specific high schools serve as an innovative pipeline for developing future talent. The return on investment for these employers would be direct access to a skilled, job-ready workforce aligned with their future hiring needs.

There are multiple avenues for creating industry-specific high schools.

Public Charter Schools

These schools could be created in states with favorable charter school laws. Key considerations include the likelihood of receiving charter school authorization and the extent to which sufficient flexibility for innovative curriculum design, staffing, and scheduling would be permitted.

As with West Michigan Aviation Academy, the public per-pupil funding could cover the core academic programs, with business and philanthropic support supplementing the special programs and associated startup and facility costs.

Private Schools, Including Microschools

As of June 2025, 17 states have passed universal school choice—Alabama, Arizona, Arkansas, Florida, Idaho, Indiana, Iowa, Louisiana, New Hampshire, North Carolina, Ohio, Oklahoma, Tennessee, Texas, Utah, West Virginia, and Wyoming¹⁸—and more are on the way. This provides a unique and timely opportunity to create industry-specific private schools. As parents are empowered with a portion of their children’s education funding to select the school of their choice, the demand for private schools is rapidly growing, along with interest in nontraditional education avenues such as microschools, which are small private schools, often with a specific focus.

Based on partnerships with industry leaders and their companies, additional facility costs and industry-specific training expenses could be underwritten to allow tuition to remain near the school choice program funding allowance.

District Public Schools

Creating one or more industry-specific schools within a public school district would give families from the district—even those from outside the district in states with interdistrict open enrollment laws—an innovative option. With district public schools experiencing enrollment declines, offering innovative industry-specific high schools would aid in student retention and attraction, particularly in states where charter schools are not allowed or highly regulated. However, legislative changes may be necessary to implement this innovative education model.

Concluding Thoughts

The need to build a strong pipeline of career-ready high school graduates is urgent—just as more par-

ents, students, and employers are questioning the value of traditional higher education. The disconnect between college outcomes and real-world workforce demands has never been more apparent.

Creating industry-specific high schools presents a bold and strategic solution in the secondary education sector. This model provides students with more than just a quality education; it gives them the chance to discover their passion, gain valuable hands-on experience, and develop the character and work ethic essential for long-term success in their careers and lives—all while providing prepared workers for high-demand and high-growth industries in America.

The beneficiaries of industry-specific high schools will include students, parents, employers, and communities—and ultimately, the country.

About the Author

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Notes

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