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## Strengthening American Industry through Education and Workforce Deregulation

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*Urgent policy changes are needed to stimulate American industrial capacity and to fill the millions of projected unfilled manufacturing jobs through 2035.*

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## INTRODUCTION

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K–12 education suffers from many ailments. It is beholden to powerful special interest groups like the teachers’ unions, relies on a pipeline of teachers educated in ineffective colleges, and is crippled with regulations that prevent school leaders from controlling critical functions like personnel decisions, school safety, and finances. It is also a victim of its most notable defect: it is a near monopoly, largely insulated from the competitive pressures of the free market.

**Nearly 200 years after Horace Mann’s push for “common schools,” America’s K–12 public schools, while still largely decentralized, are driven by an increasingly top-down structure that limits innovation at the individual school level.** Federal mandates that have accumulated in the 60 years following Lyndon Johnson’s push for the “Great Society” in 1965 have tied the hands of school leaders while failing to improve student learning outcomes. Since then, trillions of dollars spent at the federal level on K–12 education have been expended in vain.

**Just as regulations have accrued at the federal level, state-level K–12 education governance has likewise become more centralized.** State education agencies are tasked with responding to federal mandates that too often direct their attention away from meeting the needs of students and their parents. At the local level—due to myriad factors over the past century—massive school district consolidation has meant district leaders must be responsive to larger geographic regions such that parents have a difficult time getting answers from the “central office.” Why? The number of school districts has shrunk dramatically from more than 117,000 in 1940 to just over 13,500 today.<sup>1</sup>

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<sup>1</sup> Amber M. Northern, “How School District Consolidation Affects Student Outcomes and Economic Efficiency,” Thomas B. Fordham Institute, May 13, 2021, <https://fordhaminstitute.org/national/commentary/how-school-district-consolidation-affects-student-outcomes-and-economic>.

**Higher education suffers from many of the same problems and—as with K-12 education—these problems can be traced in large part back to Lyndon Johnson’s War on Poverty.** A powerful cartel of higher education administrators controls the shape and structure of accreditation. This federally sanctioned regime is also the gatekeeper to federal student loans and grants, which—rightly or wrongly—most universities see as their lifeblood.

**Meanwhile, college students spend little time engaging in academic work or attending class, with the average full-time student spending just 2.76 hours per day on education activities.**<sup>2</sup> At the same time, they are racking up student loan debt for degrees of questionable value. A 2023 survey of employers found that 67 percent strongly disagreed with the idea that colleges prepare students with “relevant skills that today’s business community needs.”<sup>3</sup> And ongoing efforts by the Biden administration to cancel student loans—a regressive policy that forces working Americans to bear the burden of someone else’s debt—are a tacit admission that the value of a college degree is low if borrowers cannot repay their loans.

**Consider those findings in the context of significant labor shortages in manufacturing.** The Manufacturing Institute estimates that there could be as many as 2.1 million unfilled manufacturing jobs by 2030 absent efforts to prepare Americans to fill them.<sup>4</sup> A study conducted by the Institute, produced in conjunction with Ernst & Young Global Limited, included in-depth interviews with manufacturing industry leaders, 65 percent of whom said “the skills needed for changing manufacturing jobs are outpacing the current

workforce.”<sup>5</sup> At the same time that the remunerative manufacturing sector is hungry for workers, college graduates increasingly find that their academic credentials are leaving them underemployed. Although college graduates who find employment in a job that requires a degree earn on average \$28,000 more than someone with only a high school diploma, college graduates who end up working in fields that do not require a college degree outpace their high school counterparts’ earnings by only \$8,000 annually.<sup>6</sup> As higher education scholar Preston Cooper notes, “If you’re a college grad[uate] in a non-college job, you’re much less likely to earn back the costs of your education.”<sup>7</sup>

**Taken together, it is clear that the current structure of top-down federal control over K-12 and higher education is yielding inadequate outcomes and leading to significant labor shortages in manufacturing.** Reducing government intervention, while empowering individuals, businesses, and state and local governments, is needed to improve results and fill the labor gaps. With less government intervention, manufacturing output will increase, and America’s industrial strength will return.

## The Current State of K-12 Education

**Centralization—rather than education freedom through expansive school choice—has failed to produce academic improvement.** From the National Assessment of Educational Progress, Figures 1 and 2 indicate just 33 percent of fourth-graders performed at

2 Lindsey M. Burke, Mary Clare Amselem, Jamie Hall, *Big Debt, Little Study: What Taxpayers Should Know about College Students’ Time Use*, The Heritage Foundation, July 19, 2016, <https://www.heritage.org/education/report/big-debt-little-study-what-taxpayers-should-know-about-college-students-time-use>.

3 Suzanne Blake, “Most Companies Say College Isn’t Worth It for Their Employees,” *Newsweek*, November 24, 2023, <https://www.newsweek.com/college-not-worth-it-companies-say-study-1846780>.

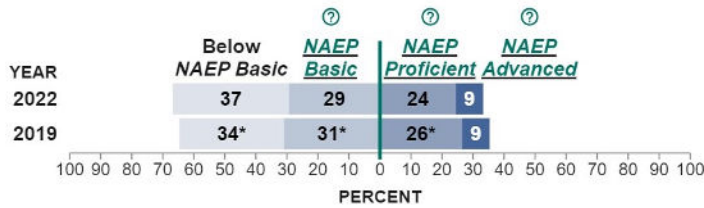
4 “How Adaptive Skills Can Play a Pivotal Role in Building the Manufacturing Sector of the Future,” The Manufacturing Institute and Ernst & Young Global Limited, accessed March 1, 2024, [https://assets.ey.com/content/dam/ey-sites/ey-com/en\\_us/topics/advanced-manufacturing/ey-how-adaptive-skills-can-play-a-pivotal-role-in-building-the-manufacturing-sector-of-the-future-v2.pdf](https://assets.ey.com/content/dam/ey-sites/ey-com/en_us/topics/advanced-manufacturing/ey-how-adaptive-skills-can-play-a-pivotal-role-in-building-the-manufacturing-sector-of-the-future-v2.pdf).

5 “How Adaptive Skills Can Play a Pivotal Role in Building the Manufacturing Sector of the Future.”

6 *Talent Disrupted: College Graduates, Underemployment, and the Way Forward*, Burning Glass Institute and Strada Institute for the Future of Work, February 2024, <https://stradaeducation.org/wp-content/uploads/2024/02/Talent-Disrupted.pdf>.

7 Preston Cooper (@PrestonCooper93), “Digging into the great @Burning\_Glass @stradaeducation report on college grads’ underemployment,” Twitter, February 27, 2024, 8:44 a.m., <https://x.com/PrestonCooper93/status/1762473887315505478>.

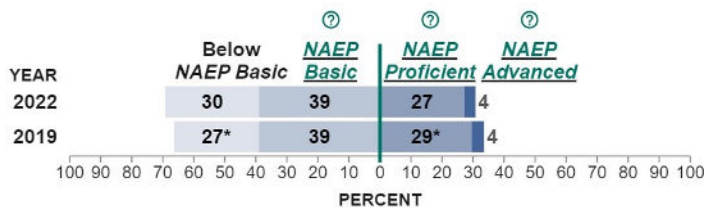
**FIGURE 1. Trend in fourth-grade NAEP reading achievement-level results**



\* Significantly different ( $p < .05$ ) from 2022.

NOTE: NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution.

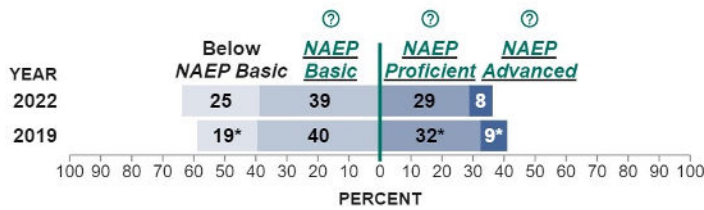
**FIGURE 2. Trend in eighth-grade NAEP reading achievement-level results**



\* Significantly different ( $p < .05$ ) from 2022.

NOTE: NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution.

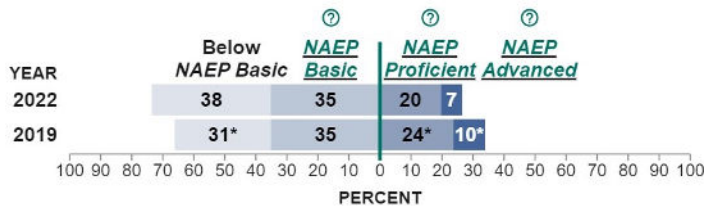
**FIGURE 3. Trend in fourth-grade NAEP mathematics achievement-level results**



\* Significantly different ( $p < .05$ ) from 2022.

NOTE: NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution.

**FIGURE 4. Trend in eighth-grade NAEP mathematics achievement-level results**



\* Significantly different ( $p < .05$ ) from 2022.

NOTE: NAEP achievement levels are to be used on a trial basis and should be interpreted and used with caution.

Source: National Assessment of Educational Progress, "Scores Decline in NAEP Reading at Grades 4 and 8 Compared to 2019," The Nation's Report Card, NAEP Report Card: 2022 NAEP Reading Assessment, 2022, <https://www.nationsreportcard.gov/highlights/reading/2022/>.

or above "proficient" in reading in 2022, a number that declines to 31 percent for eighth-graders.<sup>8</sup> In Figures 3 and 4, we see that only 37 percent of fourth-graders and a mere 27 percent of eighth-graders performed at or above "proficient" in math.<sup>9</sup>

**Academic attainment also languishes.** Although the national high school graduation rate stands at 87 percent, that figure declines to 81 percent for black students. Comparing states, some also have significantly lower high school graduation rates,

<sup>8</sup> National Assessment of Educational Progress, "Scores Decline in NAEP Reading at Grades 4 and 8 Compared to 2019," The Nation's Report Card, NAEP Report Card: 2022 NAEP Reading Assessment, 2022, <https://www.nationsreportcard.gov/highlights/reading/2022/>.

<sup>9</sup> National Assessment of Educational Progress, "Largest Score Declines in NAEP Mathematics at Grades 4 and 8 since Initial Assessments in 1990," The Nation's Report Card, NAEP Report Card: 2022 NAEP Mathematics Assessment, 2022, <https://www.nationsreportcard.gov/highlights/mathematics/2022/>.

including Alaska (79 percent), New Mexico (77 percent), and Arizona (77 percent). The District of Columbia rate is 74 percent.<sup>10</sup>

**Subpar academic achievement and attainment outcomes are felt most acutely, however, in urban areas.** Merely 23 percent of eighth-graders in Washington, DC, were proficient in reading in 2022. Eighth-graders in five cities fared worse: Albuquerque, New Mexico (21%); Philadelphia, Pennsylvania (17%); Baltimore, Maryland (15%); Cleveland, Ohio (10%); and Detroit, Michigan (5%).<sup>11</sup>

**Graduation rates in the urban areas follow a similar pattern. In Washington, DC, the graduation rate stands at 74.9 percent.**<sup>12</sup> The same five cities saw comparable results: Albuquerque (69%),<sup>13</sup> Philadelphia (75%),<sup>14</sup> Baltimore (68%),<sup>15</sup> Cleveland (74%),<sup>16</sup> and Detroit (71%).<sup>17</sup>

**The structure of K-12 education is failing to meet the needs of students in large part because educational opportunity is linked to a family's zip code.** Even though more students than ever have access to education options like vouchers, tax credit scholarships, education savings accounts, open enrollment, and homeschooling, 64 percent of children are still enrolled in an assigned district public school. Fourteen percent attend a chosen public school, 6

percent a charter school, and 5 percent a magnet school, meaning roughly 89 percent of students attend some form of public school.<sup>18</sup>

**As of 2023, approximately 1 percent of the nation's 55 million school-aged children were enrolled in a private school program, allowing their families to leverage education savings accounts, vouchers, and tax credit scholarships.** Another 7 percent paid out of pocket to attend private school, and an estimated 3 percent were homeschooled.<sup>19</sup> Thus, the vast majority of students still attend public school, and the majority of those attend their assigned public school based on where their parents can afford to live—as indicated by their zip code.

**Breaking the link between housing and schooling is crucial to reforming education.** Indeed, the empirical evidence points to resoundingly improved academic and attainment outcomes for students who have access to education choice. To date, researchers have conducted 17 random assignment studies on the impact of education choice on student academic achievement. Of those 17, 11 studies found statistically significant positive effects. Just 2 found negative effects, but these were unique to a heavily regulated program in Louisiana that discouraged high-performing private schools from participating. Four studies found neutral effects.<sup>20</sup>

10 "Public High School Graduation Rates," in Chapter 2 of *The Condition of Education 2023*, National Center for Education Statistics (2023), [https://nces.ed.gov/ipeds/data/collegesanduniversitysystems/2023/collegesanduniversitysystems/2023/coi\\_508.pdf](https://nces.ed.gov/ipeds/data/collegesanduniversitysystems/2023/collegesanduniversitysystems/2023/coi_508.pdf).

11 National Assessment of Educational Progress, "District Achievement-Level Results," The Nation's Report Card, NAEP Report Card: Reading, 2022, <https://www.nation-reportcard.gov/reading/districts/achievement/?grade=8>.

12 Office of the State Superintendent of Education, "OSSE Announces 2022 Graduation Rates," DC.gov, December 20, 2022, <https://osse.dc.gov/release/osse-announces-2022-graduation-rates>.

13 Spencer Schacht, "Metro School Districts Show Drop in 2022 Graduation Rates," KOB4, October 31, 2023, <https://www.kob.com/new-mexico/metro-school-districts-show-drop-in-2022-graduation-rates/>.

14 Office of Research and Evaluation, "2021-22 Four-Year High School Graduation Rates in Philadelphia," The School District of Philadelphia, March 22, 2023, <https://www.philasd.org/research/2023/03/22/2021-22-four-year-high-school-graduation-rates-in-philadelphia/>.

15 WMAR Staff, "Study: Baltimore Ranks Near Last in High School Graduation Rate, Top Five in Crime," WMAR Baltimore, June 22, 2023, <https://www.wmar2news.com/local/study-baltimore-ranks-near-last-in-high-school-graduation-rate-top-five-in-crime#>.

16 Rachel Abbey McCafferty, "Cleveland Sees Graduation Rates Drop on State Report Cards, but Progress in Other Areas," Crain's Cleveland Business, September 15, 2022, <https://www.craigslist.com/education/cleveland-sees-graduation-rates-drop-state-report-cards-progress-other-areas>.

17 "Detroit Public Schools Community District Demonstrates Strong Graduation Rate Improvement," Detroit Public Schools Community District, accessed March 1, 2024, <https://www.detroitk12.org/site/default.aspx?PageType=3&DomainID=4&ModuleInstanceID=4585&ViewID=6446EE88-D30C-497E-9316-3F8874B3E108&RenderLoc=0&FlexDataID=78427&PageID=1#:~:text=Adult%20Education-,Detroit%20Public%20Schools%20Community%20District%20Demonstrates%20Strong%20Graduation%20Rate%20Improvement,from%2064.5%25%20to%2071.1%25>.

18 *The ABCs of School Choice: The Comprehensive Guide to Every Private School Choice Program in America*, EdChoice (2023), <https://www.edchoice.org/wp-content/uploads/2023/01/2023-ABCs-WEB.pdf>.

19 *The ABCs of School Choice*.

20 *The 123s of School Choice: What the Research Says about Private School Choice Programs in America*, EdChoice (2023), <https://www.edchoice.org/school-choice-bibliography/>.

**Further, researchers have conducted 7 random assignment studies on the effect of school choice on academic attainment, with academic attainment being defined as high school completion and college enrollment.** Five of those studies found increases in high school graduation rates and college enrollment, while 2 found no difference.<sup>21</sup> Twenty-six of the 29 empirical studies conducted to date on the competitive effects of private school choice found positive effects on academic achievement for public school students in surrounding schools.<sup>22</sup> Of the 28 studies that considered whether school choice programs save money for taxpayers, all but 3 found that to be the case.<sup>23</sup>

**K-12 education is largely a state and local issue, with states enjoying constitutional authority to manage their education systems as they see fit.** Accordingly, states and localities shoulder the bulk (90 percent) of the financing for public education, with the federal government picking up the last 10 percent. Although education is a state and local matter, there is a role for Congress to play: restoring control of dollars and decision-making to the states. Two opportunities follow.

## Needed K-12 Reforms

### *A-PLUS.*

**The Academic Partnerships Lead Us to Success (A-PLUS) Act would allow states to opt out of programs that fall under the Elementary and**

**Secondary Education Act—currently reauthorized as the Every Student Succeeds Act (ESSA)—and instead direct their share of funding toward any lawful education purpose under state law.**<sup>24</sup> Rather than funneling federal taxpayer dollars through an ineffective, labyrinthian maze of federal formulas and competitive grant programs, states could instead put their share of the nearly \$30 billion in ESSA funding toward initiatives that work for their communities.<sup>25</sup> States could, for example, put that funding toward career and technical education programs, Science of Reading initiatives, school safety efforts, or innovative education options for families. This flexibility would improve academic outcomes and prepare students for the millions of projected unfilled job openings in the manufacturing sector over the next decade—thereby strengthening American industrial capacity and output.

### *Education Choice.*

**Although school choice is primarily a state prerogative, there is room for the federal government to assist.** For example, Congress should establish education savings accounts (ESAs)—preferably using existing funding—for children from active-duty military families. This would enable them to attend a school or education option of choice, rather than being assigned to the district school closest to their parent’s assigned duty station.<sup>26</sup> The federal government has an obligation to provide for the national defense, ensuring the children of service members have access to safe and effective learning options. Congress should also provide ESAs to Native American children on tribal lands, enabling them to attend a school of choice

<sup>21</sup> *The 123s of School Choice.*

<sup>22</sup> *The 123s of School Choice.*

<sup>23</sup> Greg Forster, *A Win-Win Solution: The Empirical Evidence on School Choice*, 4th ed., Ed Choice (May 2016), <https://www.edchoice.org/wp-content/uploads/2016/05/A-Win-Win-Solution-The-Empirical-Evidence-on-School-Choice.pdf>.

<sup>24</sup> Lindsey Burke, *Advancing School Choice and Restoring State and Local Control of Education through A-PLUS*, The Heritage Foundation, April 5, 2017, <https://www.heritage.org/education/report/advancing-school-choice-and-restoring-state-and-local-control-education-through>.

<sup>25</sup> “Federal Education-Related Discretionary Programs: Final Appropriations, FY 2023,” National Education Association, accessed March 1, 2024, <https://www.nea.org/sites/default/files/2023-01/final-fy23-appropriations-for-education-related-discretionary-programs-with-state-tables.pdf>.

<sup>26</sup> Lindsey Burke and Anne Ryland, *A GI Bill for Children of Military Families: Transforming Impact Aid into Education Savings Accounts*, The Heritage Foundation, June 2, 2017, <https://www.heritage.org/education/report/gi-bill-children-military-families-transforming-impact-aid-education-savings>.

rather than relegating them to some of the worst-performing schools in the country—those managed by the Bureau of Indian Education. Congress has a historical and prescribed obligation<sup>27</sup> to provide school choice options for this community.

**Finally, for Washington, DC, which is under the jurisdiction of Congress, George W. Bush signed the DC School Choice Incentive Act into law in 2004, establishing the DC Opportunity Scholarship Program—the only federally funded school choice program.** Congress should expand eligibility for the DC voucher program to all children living in the nation’s capital. Transitioning the program from a voucher model to a more flexible ESA option would also be wise. Similar to the A-PLUS Act, these school choice policies will improve academic outcomes and help fill the millions of job openings anticipated in the manufacturing sector over the next decade.

## The Current State of Higher Education

**American higher education faces significant challenges of its own.** Nationally, tuition and fees for in-state students attending four-year universities have nearly tripled in real terms since 1990.<sup>28</sup> Since 1970, inflation-adjusted tuition rates have quintupled at both public and private colleges.<sup>29</sup> At the same time, spending on student loans, propped up by massive federal subsidies, has risen 328 percent over the last 30 years, from \$20.4 billion during the 1989–90 school

year to \$87.5 billion during the 2019–20 school year.<sup>30</sup> Inflation-adjusted state appropriations for public colleges and universities have increased \$1,700 per pupil since 1980.<sup>31</sup> Ohio University economist Richard Vedder sums up the current situation:

*[I]t takes more resources today to educate a postsecondary student than a generation ago. . . . Relative to other sectors of the economy, universities are becoming less efficient, less productive, and, consequently, more costly.<sup>32</sup>*

**From 2001 to 2011, the number of nonteaching employees and administrators in higher education increased 50 percent faster than teaching faculty, according to the *Wall Street Journal’s* Douglas Belkin and Scott Thurm.<sup>33</sup>** Noninstructional staff now typically accounts for more than half of university payroll costs.<sup>34</sup> As higher education scholar Preston Cooper has detailed, only 40 percent of full-time employees at nondoctoral colleges are instructional staff; that number is just 28 percent at doctoral-granting universities.<sup>35</sup> Indeed, “Since 2003, only one-third of the increase in colleges’ and universities’ core expenditures has gone to spending on instruction. Almost all the rest has fed the growth of the vast administrative apparatus of these institutions,” Cooper reports.<sup>36</sup>

**This surge in nonteaching staff and general administrative costs is one contributing factor toward the swelling cost of college.** Ever-increasing federal aid, particularly subsidized student loans, are the primary

27 *Indian Elementary-Secondary Education: Programs, Background, and Issues*, Congressional Research Service, August 18, 2015, [https://www.everycrsreport.com/files/20150818\\_RL34205\\_80439e306cdda749c89221a0c5c1cdb779587ddb.pdf](https://www.everycrsreport.com/files/20150818_RL34205_80439e306cdda749c89221a0c5c1cdb779587ddb.pdf).

28 *Trends in College Pricing and Student Aid 2020*, Trends in Higher Education Series, The College Board (October 2020), <https://research.collegeboard.org/media/pdf/trends-college-pricing-student-aid-2020.pdf>.

29 Preston Cooper, “Why College Is Too Expensive—and How Competition Can Fix It,” Foundation for Research on Equal Opportunity, Medium, March 5, 2021, <https://freopp.org/why-college-is-too-expensive-and-how-competition-can-fix-it-cb2eb901521b>.

30 Cooper, “Why College Is Too Expensive.”

31 Cooper, “Why College Is Too Expensive.”

32 Richard K. Vedder, *Restoring the Promise: Higher Education in America*, Oakland, CA: Independent Institute, 2019, 29.

33 Douglas Belkin and Scott Thurm, “Deans List: Hiring Spree Fattens College Bureaucracy—and Tuition,” *The Wall Street Journal*, December 28, 2012, <https://www.wsj.com/articles/SB10001424127887323316804578161490716042814>.

34 *Critical Care: Policy Recommendations to Restore American Higher Education after the 2020 Coronavirus Shutdown*, National Association of Scholars, April 18, 2020, <https://www.nas.org/reports/critical-care/full-report>.

35 Cooper, “Why College Is Too Expensive.”

36 Cooper, “Why College Is Too Expensive.”



contributing factor, with colleges raising tuition 60 cents for every dollar received in bankrolled student loans.<sup>37</sup> This crisis will compound significantly in coming years, thanks to the Biden administration's ongoing efforts to cancel student loan debt held by borrowers. This unfair and regressive cancellation will also spawn an additional inflationary effect on the price of college, as new cohorts of students borrow even more out of the reasonable expectation that their loans will be forgiven in the future. The result: colleges evermore raise tuition, confident that Uncle Sam will ultimately pick up the tab.

**As college costs continue to rise, its value proposition continues to fall.** The six-year completion rate for students pursuing a bachelor's degree stood at just 60 percent in 2020—meaning just 6 in 10 students complete a four-year bachelor's degree in six years.<sup>38</sup> One-third of college graduates are underemployed, working in jobs that do not require a bachelor's degree,<sup>39</sup> and most of them likely took on student loan debt in the process. As analysts with the Federal Reserve Bank of New York discovered,

while 75 percent of engineering students land jobs that require a college degree, just 40 percent of communications majors do.<sup>40</sup> Moreover, scholars at the Brookings Institution explain that the proportional increase in earnings gained from advancing from a high school diploma to a bachelor's degree is much less for students from poor families than for those who did not grow up poor.<sup>41</sup> And, as previously noted, employers are increasingly skeptical that a bachelor's degree prepares students with the skills they need to be successful in the workplace.

## Needed Higher Education Reforms

### *Accreditation Reform.*

**The Higher Education Reform and Opportunity Act (HERO) would reform the ossified higher education system by decoupling accreditation from federal financing.** Rather than conditioning access to student

37 David O. Lucca, Taylor Nadauld, and Karen Shen, *Credit Supply and the Rise in College Tuition: Evidence from the Expansion in Federal Student Aid Programs*, Federal Reserve Bank of New York, Staff Report No. 733, February 2017, [https://www.newyorkfed.org/medialibrary/media/research/staff\\_reports/sr733.pdf](https://www.newyorkfed.org/medialibrary/media/research/staff_reports/sr733.pdf).

38 Madeline St. Amour, "Completion Rates Flat Over All," *Inside Higher Ed*, December 7, 2020, <https://www.insidehighered.com/quicktakes/2020/12/08/completion-rates-flat-over-all>.

39 Jaison R. Abel, Richard Deitz, and Yaqin Su, "Are Recent College Graduates Finding Good Jobs?" *Current Issues in Economics and Finance* 20, no. 1 (2014), [https://www.newyorkfed.org/medialibrary/media/research/%20current\\_issues/ci20-1.pdf](https://www.newyorkfed.org/medialibrary/media/research/%20current_issues/ci20-1.pdf).

40 Abel, Deitz, and Su, "Are Recent College Graduates Finding Good Jobs?"

41 Brad Hershbein, "A College Degree Is Worth Less If You Are Raised Poor," *The Brookings Institution*, February 19, 2016, <http://www.brookings.edu/blogs/social-mobility-memos/posts/2016/02/19-college-degree-worth-less-raised-poor-hershbein>.

loans and grants on colleges being accredited by a de facto federal system that has failed to provide quality assurance, HERO would allow states to determine accreditation options, permitting them to allow any entity to accredit and credential colleges and individual courses. This would provide students with significant flexibility in pursuing their postsecondary goals. Senator Mike Lee (R-UT), the bill's sponsor, explained,

*Accreditation could also be available to specialized programs, individual courses, apprenticeships, professional credentialing, and even competency-based tests. States could accredit online courses, or hybrid models with elements on- and off-campus.*

*These systems would open up opportunities for non-traditional students—like single parents working double shifts—whose life responsibilities might make it impossible to take more than one class at a time. They would also enable traditional students to tailor a degree that better reflects the knowledge and skills valued by employers. Innovations in vocational education and training would open new opportunities in growing fields that are hiring right now.*

*Qualified unions, businesses, and trade groups could start to accredit courses and programs tailored to their evolving needs. Churches and charities could enlist qualified volunteers to offer accredited classes and training for next to nothing. States could use innovative systems to attract new opportunities and businesses, investing in their own future by investing in the human capital of their citizens.<sup>42</sup>*

**Allowing states to establish alternative accreditation systems will improve quality assurance while also creating more opportunities for students to earn credentials that can fill the workforce gap, especially in sectors facing significant labor shortages, such as manufacturing.** To reinforce the benefits of alternative accreditation approaches, Congress should allow Pell Grants—federal grants to income-eligible students that do not have to be repaid—to be used for short-term programs that result in industry-valued credentials.

### *Ending PLUS.*

**One of the primary drivers of increases in college costs is the federal PLUS Loan program.** PLUS (not to be confused with A-PLUS) includes two components: 1) the Parent PLUS Loan program created in 1980 that enables parents to borrow on behalf of the undergraduate child and 2) the Grad PLUS Loan program, created in 2006, which enables graduate students to borrow up to the cost of attendance to enroll in graduate school. The Parent PLUS program encourages entire families to take on debt to finance an undergraduate degree; the Grad PLUS program enables students to take on six figures of debt to finance graduate school. Both components have fueled college tuition increases, and abolishing both for that reason has gained support in Congress. Eliminating PLUS would encourage a restoration of the private lending market, create more discipline in borrowing, and put downward pressure on the price of college.

**In the wake of PLUS, colleges should explore adopting income share agreement (ISA) models, in which colleges pay the cost of college up front for a student in exchange for a portion of their income after graduation and upon employment.** The current model diverts scarce resources to less-appreciated

<sup>42</sup> Senator Mike Lee, "What's Next for Conservatives" (speech), The Heritage Foundation, October 29, 2013, <https://www.lee.senate.gov/2013/10/what-s-next-for-conservatives>.

degrees by allowing students and parents to borrow as much as they want to study any subject at any institution, regardless of value—leading to increased costs, depressed academic outcomes, and degrees of questionable worth. But an ISA model would create needed incentives for students to choose fields of study that produce higher ROIs. Results would include more innovation, increased productivity, higher output in sectors such as manufacturing, and increased industrial capacity.

## The Promise of Apprenticeships and Workforce Deregulation

**Today, too many students graduate college and begin careers that do not require a college degree.** Their student loan debt, amassed for a degree they are not

leveraging, demands to be serviced. Although college is the right path for many, too often young Americans are introduced to a disheartening amount of debt after having been sold the myth that college is the only way to climb the ladder of upward economic mobility.

**In response, K-12 schools should educate students on the many opportunities provided by apprenticeship programs, whether they are begun while in high school or after graduation.** Schools across the country should expand career and technical education offerings, following in the decades-old footsteps of vocational training options in the culinary arts, automobile mechanics, HVAC, and other trades. As Table 1 indicates, many vocations supported by career and technical education offer the promise of sizeable salaries but without the burden of student loan debt. Plus, apprenticeships enable individuals to begin paid work immediately, while learning on the job.

**Table 1. Median Salary by Vocation Type<sup>43</sup>**

	Median Salary, \$	Salary Range, \$	Median Apprentice Salary, \$
Electricians	60,240	37,440-102,300	56,000
Mechanics	46,970	29,270-75,360	43,080
Elevator Techs	99,000	47,850-135,130	50,000
Plumbers	60,090	37,250-101,190	43,680
Carpenters	51,390	36,160-89,950	45,784

Source: Data retrieved from US Bureau of Labor Statistics, Salary.com, and ZipRecruiter.

43 Electrician data derived from US Bureau of Labor Statistics, "Occupational Employment and Wage Statistics," 47-2111 Electricians," US Department of Labor, May 2023, <https://www.bls.gov/oes/current/oes472111.htm> and "Electrician—Apprentice Salary in the United States," Salary.com, January 26, 2024, <https://www.salary.com/research/salary/alternate/electrician-apprentice-salary>; Mechanic data derived from US Bureau of Labor Statistics, "Occupational Employment and Wage Statistics:" 49-3023 Automotive Service Technicians and Mechanics" US Department of Labor, May 2022, <https://www.bls.gov/oes/current/oes493023.htm> and "Auto Apprentice Mechanic Salary," ZipRecruiter, accessed March 1, 2024, <https://www.ziprecruiter.com/Salaries/Auto-Apprentice-Mechanic-Salary>; Elevator tech data derived from US Bureau of Labor Statistics, "Elevator and Escalator Installers and Repairers," Occupational Outlook Handbook, US Department of Labor, September 6, 2023, <https://www.bls.gov/ooh/construction-and-extraction/elevator-installers-and-repairers.htm>; Plumber data derived from US Bureau of Labor Statistics, "Occupational Employment and Wage Statistics," 47-2152: Plumbers, Pipefitters, and Steamfitters" US Department of Labor, April 25, 2023, <https://www.bls.gov/oes/current/oes472152.htm> and "Hourly Wage for Plumber, Apprentice Salary in the United States," Salary.com, February 26, 2024, <https://www.salary.com/research/salary/alternate/plumber-apprentice-hourly-wages>; Carpenter data derived from US Bureau of Labor Statistics, "Carpenters," Occupational Outlook Handbook, US Department of Labor, October 3, 2023, <https://www.bls.gov/ooh/construction-and-extraction/carpenters.htm> and "Carpenter Apprentice Salary in the United States," Salary.com, February 26, 2024, <https://www.salary.com/research/salary/benchmark/carpenter-apprentice-salary>.

*IRAPs.*

**Reviving Industry-Recognized Apprenticeship Programs (IRAPs) would expand total apprenticeships while providing companies and industries the needed flexibility to tailor this valuable tool to the needs of their businesses.** IRAPs, established during the Trump administration via executive order (EO),<sup>44</sup> directed the Department of Labor to propose regulations to support third-party apprenticeship programs. These IRAPs include paid work in a given industry, along with education that results in an industry-recognized credential.<sup>45</sup> As Paul Winfree and Rachel Greszler note, “This quickly led to more than 130 new apprenticeship programs predominantly in high-demand fields with worker shortages.”<sup>46</sup> As promising and needed as the IRAP model is, the Biden administration canceled the effort. Reviving IRAPs will be critical to filling the manufacturing labor gap, which, as discussed previously, is estimated to reach 2.1 million unfilled manufacturing jobs by 2030.

*Right to Work.*

**Another important labor policy for lawmakers interested in spurring manufacturing growth is legislation that would implement right-to-work (RTW).** RTW laws ensure that individuals working in the private sector are not forced to join a union or pay union dues against their will. Outside of the economic benefits, RTW laws empower workers since businesses have a strong incentive to provide competitive pay and benefits to avoid any clashes with unions, who often have political agendas that supersede the interests of the workers or the business.

**Importantly, RTW laws provide needed certainty for firms that make long term investments—particularly manufacturers.** This can be seen in numerous studies finding that states with RTW laws experience faster growth in manufacturing production and employment. A 2021 study from economists at Harvard University found that “RTW laws are associated with a 3.2

44 Exec. Order No. 13,801: 82 *Fed. Reg.* 28229, (June 15, 2017), <https://www.federalregister.gov/documents/2017/06/20/2017-13012/expanding-apprenticeships-in-america>.

45 Office of Apprenticeship, “Industry-Recognized Apprenticeship Program Frequently Asked Questions,” US Department of Labor, accessed March 1, 2024, [https://www.apprenticeship.gov/sites/default/files/IRAP\\_FAQ.pdf](https://www.apprenticeship.gov/sites/default/files/IRAP_FAQ.pdf).

46 Paul Winfree and Rachel Greszler, “Apprenticeships, Not College, Can Help Reduce Unemployment,” The Heritage Foundation, June 21, 2022, <https://www.heritage.org/jobs-and-labor/commentary/apprenticeships-not-college-can-help-reduce-unemployment>.





percentage point increase in the manufacturing share of employment.”<sup>47</sup> A 2022 study published by the Mackinac Center for Public Policy found that:

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*Manufacturing employment as a percentage of total employment increased as a result of right-to-work laws. Border counties in right-to-work states had 12.1% higher employment share in pre-2000 right-to-work states and 20.7% higher in post-2000 right-to-work states.*<sup>48</sup>

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**Finally, a 2023 study from the Manhattan Institute found that RTW laws sharply raise a state’s manufacturing**

**share of employment by approximately 28%, or 3.23 percentage points.** This increase in manufacturing is not from crowding out other industries; rather, it results in stronger local labor markets in general.”<sup>49</sup> The next administration should use the bully pulpit to call on states to adopt RTW laws that have been shown empirically to boost manufacturing.

Education and Workforce Freedom—  
from K–12 through Higher Education—  
Is the Key to Supporting Vibrant  
American Industry

**A looming manufacturing shortage, coupled with growing dissatisfaction with higher education, adds urgency to both K-12 and higher education reform.** States and the federal government should strive to meet the needs of the rapidly changing manufacturing industry nimbly. At the K-12 level, Congress should allow

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47 Benjamin Austin and Matthew Lilley, “The Long-Run Effects of Right to Work Laws,” Harvard University, November 16, 2021, <https://scholar.harvard.edu/files/matthew-lilley/files/long-run-effects-right-to-work.pdf>.

48 Michael D. Lafaive and Todd Nesbit, “The Impact of Right-to-Work Laws: A Spatial Analysis of Border Counties,” Mackinac Center for Public Policy, April 12, 2022, <https://www.mackinac.org/archives/2022/s2022-03.pdf>.

49 Matthew Lilley, “Workers, Wages, and Economic Mobility: The Long-Run Effects of Right-to-Work Laws,” Manhattan Institute, September 2023, <https://media4.manhattan-institute.org/wp-content/uploads/long-run-effects-of-right-to-work-laws.pdf>.

states to opt out of the myriad of ineffective federal education programs, instead putting their share of funding toward alternatives, such as apprenticeships, which add value through increased employment and service to local communities. For their part, states should enact universal school choice, enabling more students to have access to learning options that meet their needs, including schools that have strong career and technical education programs. In higher education, Congress must reduce federal subsidies and tackle accreditation reform to allow innovation to flourish. The next administration should also reinstate the 2017 IRAP

EO so that market-based apprenticeships can return to contribute to industry employment. Finally, the next administration should call on states to guarantee that no American—regardless of where they live—is forced to join a labor union or have part of their paycheck forcefully used to fund a labor union.

**Taken in total, these policy changes would go a long way toward promoting American industrial capacity and filling the millions of projected unfilled manufacturing jobs through 2035.**



### About the Author

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