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Idaho's Education Earnings Gap

by

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Foreword

"Education pays." This well-worn adage certainly applies to Idaho. According to Professor Winters in this new report by the Thomas B. Fordham Institute, the mean earnings differential between an Idahoan with just a high school diploma and one with a bachelor's degree is about $32,000 a year. This disparity is even greater for residents of the Boise metro area, where workers holding just a high school diploma earn $37,780 less per year on average than college graduates.

Worries about the growing income gap between our college-educated residents and our high school graduates are not new. This gap has been at the center of a number of reports and public policy efforts for years. In 2012, Idaho set a goal to have 60 percent of our high school graduates "go on" to some form of post-secondary education. Yet only about 41 percent of our high school graduates actually do pursue education after high school. Even fewer ultimately earn a college degree. According to a Brookings Institute report from May of 2019, "Among Idaho's 18-24 year-olds, 6.6 percent have a college degree compared to 10.5 percent for the entire country."[1]

Bluum's interest in this work is around what K-12 education can do differently in Idaho to try to close the earnings gap between those with a college degree and those without. One idea that has received a lot of attention, as mentioned above, is to try to get more students into post-secondary education. This is surely part of the solution, but it is not the *only* solution.

A less discussed approach is to make a high school diploma worth more in the Boise area and across Idaho. This is where Winters's economic analysis raises some particularly interesting questions and opportunities. Compared to other neighboring metro areas and even compared to the rest of Idaho, "Boise Metropolitan Statistical Area (MSA) has especially low average earnings for high school graduates." This, Winters continues, "is in strong contrast to the earnings experiences for college-educated workers in Boise who out-earn comparison groups" across Idaho and in other neighboring metro areas.

He goes on to postulate that K-12 education in the Boise MSA "may not be providing the most valuable skills for students who skip college and go straight to work." Winters recommends that state and local policymakers, "take a serious look at how schools are preparing young people for the workforce and how they can do a better job." He concludes, "Students foregoing college need both applied practical skills to hit the ground running and basic skills."

The report provides a series of recommendations for improving alignment between K-12 education and employment. The effort to make the high school diploma more valuable to employers is critical for our high school students who won't "go on" to post-secondary education. Professor Winters and the Fordham Institute have done a nice job of highlighting the challenge. Importantly, they have also provided concrete proposals and policies being utilized in other states to better connect high school work to well-paying employment.

Bluum is appreciative of the good work conducted by Professor Winters and the team at the Thomas B. Fordham Institute. No issue facing Idaho is greater than addressing the widening inequality between those with and without a college education. It is no longer enough to think the answer is just getting more students to "go on." We need to upgrade the quality of K-12 education so our high school graduates can make a living and fully enjoy all the wonderful opportunities Idaho has to offer—whether they go on or not.

— **TERRY RYAN**
Chief Executive Officer, Bluum

I. Introduction

Young people are frequently told that higher education is important for obtaining a rewarding career. The income gap between workers with and without a college education is large, growing, and expected to continue widening. Yet higher education is also increasingly expensive, with rising tuition and fees burdening students with ever-heavier debts. Even if higher education is still a good investment on average, that investment yields returns that vary widely by institution, field of study, and geography, even within states. Specific income and employment opportunities depend on many factors, not just college attendance and degree acquisition.

This report focuses on the state of Idaho.[2] Mean earned income is computed for workers with different levels of education for the state as a whole and for the Boise Metropolitan Statistical Area (MSA).[3] The analysis then compares earnings across these groups of workers to gauge how much difference in earnings is related to different levels of education. Specifically, the report investigates four main questions:

1. How do earnings vary by education level in Idaho?
2. How do earnings vary by education level in Boise?
3. Why might earnings in Boise differ from those in the rest of Idaho?
4. How do earnings in Idaho differ from those in neighboring states?

Section II presents the findings for the first three research questions, and Section III addresses the fourth research question. Section IV focuses in detail on workers in Boise who have only a high school diploma. Section V examines the costs and affordability of higher education in Idaho, and Section VI offers key takeaways.

The main report is followed by an afterword authored by staff of the Thomas B. Fordham Institute, suggesting ways to improve education-workforce alignment in Idaho based on this analysis and the experiences of other states.

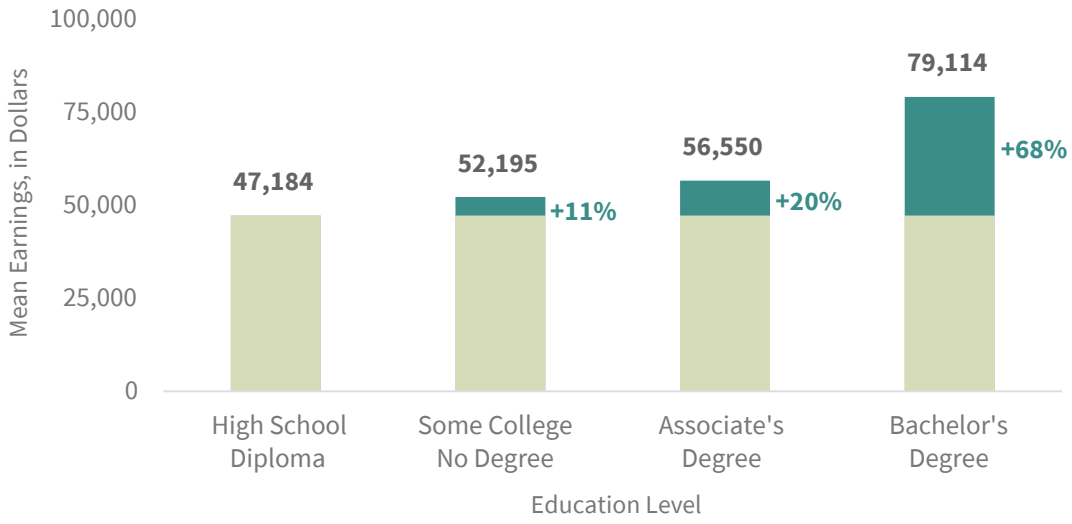
II. Earnings for Idaho and the Boise area

This report is based on data from the 2015–17 American Community Survey.[4] In order to focus on workers who are strongly attached to the labor market, the analytical sample is restricted to full-time, full-year workers, ages 30-59, who were born in the U.S.[5] Incomes are adjusted for inflation and converted to January 2019 dollars.

The report examines four main education groups, including persons with (1) only a high school diploma, (2) some college but no degree, (3) an associate's degree, and (4) a bachelor's degree.[6] The high school diploma group excludes GED recipients. The group examining persons with some college but no degree includes persons who completed a certificate program in a professional field and persons who pursued an academic or technical degree but did not complete it. For associate's degrees, it is not possible to differentiate vocational programs from academic programs, and the bachelor's degree group excludes persons who have completed graduate degrees.

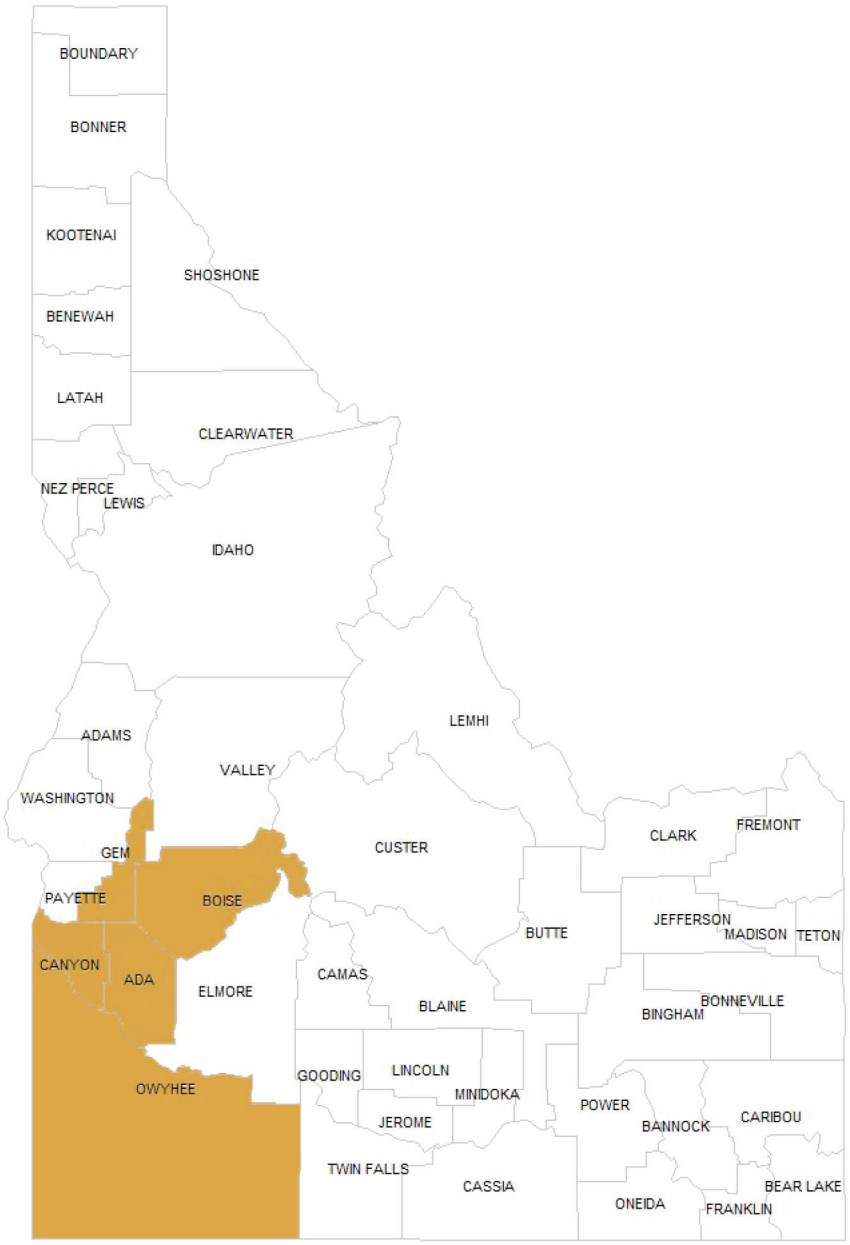
Figure 1 illustrates mean earnings by education group for Idaho. As adults gain additional education, earnings rise. High school graduates have mean earnings of $47,184. The mean for workers with some college is $52,195, a roughly 11 percent gain relative to high school graduates. The mean earnings for associate's degree holders equal $56,550, which is 20 percent higher than high school graduates. Bachelor's degree holders have mean earnings of $79,114, a 68 percent increase over high school graduates.

Figure 1. In Idaho, obtaining a bachelor's degree is associated with a 68 percent annual income premium over a high school diploma.



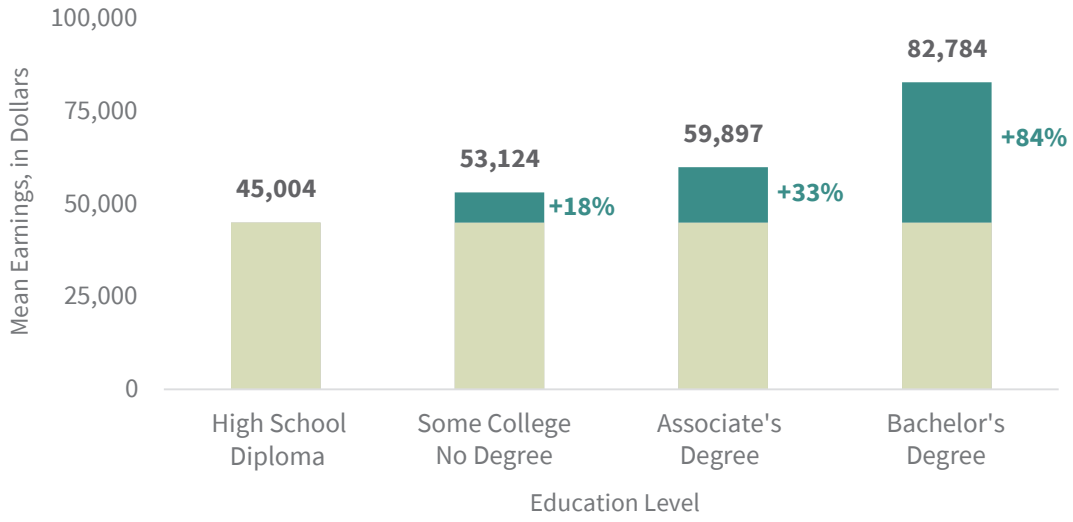
Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S.

Figure 2. The Boise Metropolitan Statistical Area (MSA) is comprised of five counties.



Turning to the capital, the U.S. Census Bureau defines the Boise MSA to include five counties: Ada, Boise, Canyon, Gem, and Owyhee (see figure 2). Figure 3 presents mean earnings by education level for this area. High school graduates in the Boise area have mean earnings of $45,004. The mean earnings for persons with some college but no degree are $53,124, which is 18 percent higher than high school graduates. For holders of associate's and bachelor's degrees, mean earnings are $59,897 and $82,784, respectively, resulting in income gaps of 33 and 84 percent relative to high school graduates. Thus, mean earnings again increase with education level, although the increments associated with education are even larger for the Boise area than for Idaho as a whole (per figure 1).[7]

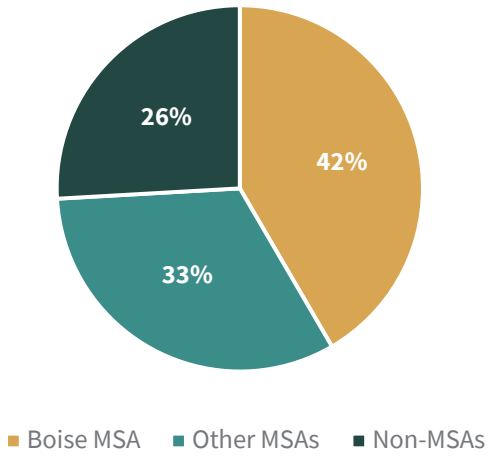
Figure 3. In the Boise area, obtaining a bachelor's degree is associated with an 84 percent annual income premium over a high school diploma.



Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S. This figure includes data for the entire Boise MSA.

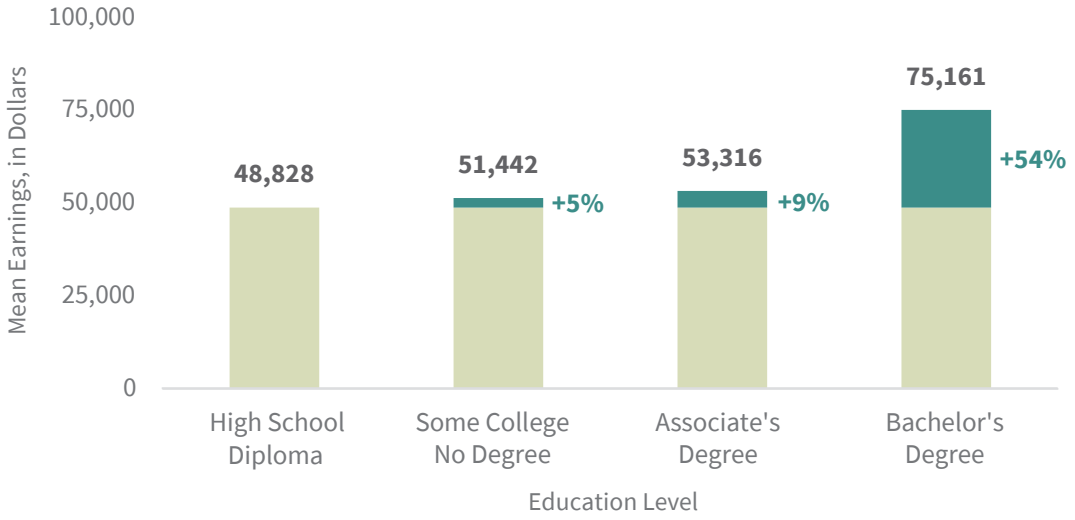
As shown in figure 4, nearly 60 percent of Idahoans live outside of the Boise area. Figure 5 reports mean earnings by education level for Idaho excluding the Boise MSA, which helps facilitate sharper comparisons between the Boise area and the rest of Idaho. It shows that, outside of the Boise area, obtaining a bacholor's degree is associated with a 54 percent annual income premium over a high school diploma. Comparing figures 3 and 5, the three college-educated groups have higher mean earnings in Boise than in the rest of Idaho. Previous examinations of earnings across MSAs have generally found them rising with labor-market size.[8] The Boise MSA is the largest in Idaho, so higher mean earnings in this area than in other Idaho MSAs are to be expected. Surprisingly, however, mean earnings for high school graduates are actually lower in the Boise area than in the rest of Idaho. We will return to this finding in Section IV.

Figure 4. More than two in five Idaho residents live in the Boise area.



Notes: The author's computations are based on county population estimates from the United States Census Bureau. The estimated 2018 Idaho population is 1,754,208. Percentages may not sum to 100, due to rounding. MSAs other than Boise include Coeur d'Alene, Idaho Falls, and Pocatello.

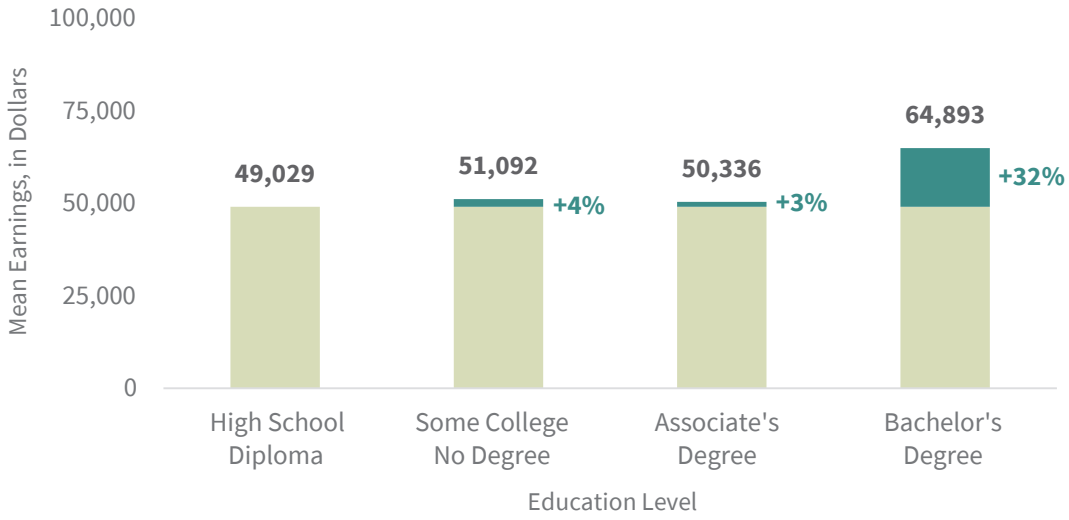
Figure 5. Outside of the Boise area, obtaining a bachelor's degree is associated with a 54 percent annual income premium over a high school diploma.



Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S. Earnings are rounded to the nearest thousand. This figure includes data for Idaho, excluding the Boise MSA.

Figure 6 focuses only on nonmetropolitan areas in Idaho.[9] The mean earnings of $49,029 for high school graduates in these areas are higher than in the metro areas but lower for the college-educated groups. In other words, the higher-education premium is smaller outside the urban areas, while high school graduates fare relatively better. Workers with an associate's degree, on average, make only 2.7 percent more than those with just a high school diploma, while those with a bachelor's degree make 32.4 percent more than high school graduates.

Figure 6. Outside of Idaho's Metropolitan Statistical Areas (MSAs), obtaining a bachelor's degree is associated with a 32 percent annual income premium over a high school diploma.



Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S. Earnings are rounded to the nearest thousand. This figure includes data for areas of Idaho that fall outside the state's MSAs.

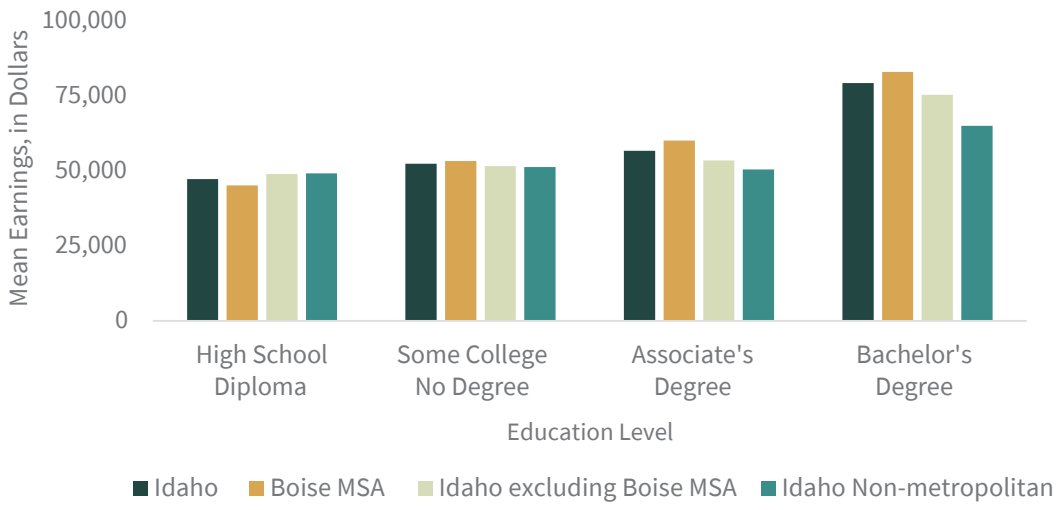
Table 1 and figure 7 summarize the data included in figures 1, 3, 5, and 6 for easier comparison.

Table 1. Earnings by education level in regions of Idaho

	(1) High school diploma	(2) Some college, no degree	(3) Associate's degree	(4) Bachelor's degree
Idaho	47,184	52,195	56,550	79,114
Boise MSA	45,004	53,124	59,897	82,784
Idaho excluding Boise MSA	48,828	51,442	53,316	75,161
Idaho nonmetropolitan	49,029	51,092	50,336	64,893

Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S.

Figure 7. Bachelor's degree holders strongly out-earn workers with less education in all regions of the state.



Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S.

Brain drain of college-educated (or college-aspiring) workers from rural to urban areas is a major concern. Though living in rural Idaho can be attractive for many reasons, labor-market opportunities for college-educated workers in rural areas are likely to continue to lag behind those in urban areas. Rural areas have weaker demand for college-educated workers and lower average incomes for them. Case in point, workers with associate's degrees on average earn $9,561 more in Boise MSA than in Idaho's non-MSAs. Workers with bachelor's degrees earn $17,891 more on average in Boise MSA than in non-MSAs. All that said, the report's afterword offers ideas for improving Idaho's labor force that may be especially valuable to the state's rural areas.

III. Comparisons with neighbors

For context, table 2 reports mean earnings by education level for Idaho and neighboring states (we now omit the category examining individuals with some college but no degree, for simplicity).

The two last columns report percentage differences in mean earnings for associate's and bachelor's degrees relative to high school diplomas. Mean earnings for high school graduates are lower in Idaho than all of its neighboring states (column 1). Those with associate's degrees have lower mean earnings than all neighboring states except Montana (column 2)—although, driven by the exceptionally low earnings of Idaho's workers with only high school diplomas, the premium for obtaining an associate's degree is highest in Idaho (column 4). Bachelor's degree graduates in Idaho have higher mean earnings than counterparts in Montana and Wyoming but lower mean earnings than the rest of the states (column 3). The lower mean earnings in Idaho compared to most neighboring states partially reflect factors like a lower cost of living. In particular, cities like Seattle, Portland, and Las Vegas have much higher housing prices than Idaho's cities.

Table 2. Idahoans receive a larger premium from an associate's degree than workers in any of Idaho's neighboring states.

State	(1) High school diploma	(2) Associate's degree	(3) Bachelor's degree	(4) Associate's vs. high school	(5) Bachelor's vs. high school
Idaho	47,184	56,550	79,114	+19.9%	+67.7%
Montana	50,906	53,950	68,455	+6.0%	+34.5%
Nevada	52,398	60,366	85,017	+15.2%	+62.3%
Oregon	50,446	58,876	85,843	+16.7%	+70.2%
Utah	52,606	61,746	88,860	+17.4%	+68.9%
Washington	59,413	66,135	99,331	+11.3%	+67.2%
Wyoming	60,687	58,872	73,642	−3.0%	+21.3%

Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S.

In many ways, the earnings differences in the last two columns are more informative about earnings premiums associated with higher education than differences in mean earnings. By these measures, Idaho does better. The mean earnings premium for associate's degrees relative to high school diplomas is higher in Idaho than any neighboring states (column 4). The earnings premium for bachelor's degrees relative to high school is third highest and not much behind the top state (column 5). This pattern suggests that the average financial return to higher education in Idaho is competitive.

Table 3 compares the Boise MSA to the averages for other Idaho MSAs and the neighboring states' MSAs.[10] We see again that mean earnings for high school graduates are considerably lower in the Boise MSA than comparison groups (column 1). Mean earnings for associate's degrees and bachelor's degrees in the Boise MSA are higher than the two comparison groups (columns 2 and 3). Furthermore, the mean earnings *premiums* for associate's degrees and bachelor's degrees in the Boise MSA are much larger than the averages for other Idaho MSAs and neighboring states' MSAs (columns 4 and 5). In short, for workers in the Boise area, higher education may be a particularly good investment.

Table 3. The education premium in the Boise area is larger than the average in both other metropolitan areas of Idaho and in other metropolitan areas in the region.

	(1) High school diploma	(2) Associate's degree	(3) Bachelor's degree	(4) Associate's vs. high school	(5) Bachelor's vs. high school
Boise MSA	45,004	59,897	82,784	+33.1%	+83.9%
Other Idaho MSAs average	50,792	55,871	79,154	+10.0%	+55.8%
Neighboring states' MSAs average	53,994	59,118	80,644	+9.5%	+49.4%

Notes: The author's calculations are based on American Community Survey data from 2015 to 2017. Incomes are adjusted for inflation and converted to January 2019 dollars. The sample is limited to full-time, full-year workers, ages 30–59, who were born in the U.S.

IV. Workers in Boise with only a high school diploma

One of the most surprising findings in this study is that high school graduates in the Boise area have such low mean earnings compared to both the rest of Idaho and MSAs in neighboring states. Furthermore, this finding is in strong contrast to the earnings experiences for college-educated workers in the Boise area who out-earn the comparison groups.

There are several possible explanations for Idaho's unique labor market. One possibility is that many lower-skilled high school graduates have moved to the Boise area in recent years, driving down average wages. There is no definitive way to adjust for this migration empirically, but a reasonable approach is to limit the analysis to long-term residents. Unfortunately, long-term residence in the ACS can only be identified based on the state in which an individual was born. The city or county of birth is not known, nor is there useful information on residence between the time of birth and the time of the survey. Still, to test this hypothesis, mean earnings were reestimated by further limiting the sample to persons who resided in their birth state at the time of the survey. The mean earnings for high school graduates in the Boise area who were born in Idaho are $43,986, which is still much lower than the mean earnings in the comparison groups.

A second possible explanation is that the relatively low mean earnings for high school graduates may reflect uniquely weak labor demand for workers who lack college-level skills in the Boise area. Economic models contend that wages, like all prices, depend on supply and demand. If the wages for a particular group of workers are relatively low, it may reflect weak demand.

Although possible, this explanation would be somewhat surprising, given the strong population and employment growth in recent decades in Boise.[11] Weak demand for a particular type of labor in an area would predict that those workers would likely move away from the area. Yet Boise's population has been growing across each of these education groups: from 2014–17, population growth in the Boise area among persons with high school diplomas, associate's degrees, and bachelor's degrees was 15.0 percent, 17.8 percent, and 13.8 percent, respectively.[12]

Of course, even if weak demand for high school graduate labor is not an underlying cause for low mean earnings in the Boise area, such workers may still benefit from policy efforts that make the area more attractive to employers that are hiring high school graduates. That said, increased demand for high school graduate labor may manifest in more people moving to Boise, with the increased supply of labor depressing wages.

A third possibility is that the comparison MSAs may have more employment in high-wage industries for high school graduates, such as oil and gas extraction or other mining activities. To see whether this theory has merit, mean earnings were reestimated, similarly to Table 3 but excluding all workers employed in the natural resources sector, which includes oil and gas extraction, other mining, agriculture, forestry, and fisheries. The results are quite similar to the main estimates

in Table 3, suggesting that the uniquely low earnings for high school graduates in the Boise area are not driven by differences in natural-resource employment.

Another possible explanation is that high school graduates in the Boise area may be gaining less productive or employable skills from their education than high school graduates elsewhere. This could be the product of ineffectual schools, schools with strained capacity and/or inadequate resources, or a reflection of policies and practices, whereby the skills young people acquire in Boise-area high schools aren't the kinds most valued in today's economy. If, for example, they are being prepared for traditional colleges, they are unlikely to gain the technical and occupational expertise that would serve them best in a noncollege job market.

We can only speculate, as we've done here, as to why high school graduates in the Boise area have such low mean earnings compared to both the rest of Idaho and MSAs in neighboring states. Further study and careful consideration of these possibilities and others, however, would obviously help to diagnose and address the problem.

V. Costs of higher education

Higher earnings are a chief benefit from higher education, but attending college also involves considerable costs. The most obvious costs to individuals are tuition and fees, as well as living expenses while in college and opportunity costs of not working, or not working full time, while attending college. These expenses vary substantially depending on where one attends college—including public versus private, in-state versus out-of-state, and two-year versus four-year institutions.

Table 4 reports mean in-state annual tuition for full-time students for Idaho public colleges and universities in recent years. For two-year schools, the mean in-district tuition and fee rates are also reported.[13] For the 2018–19 academic year, we see that mean in-state tuition and fees were $7,399 at four-year schools and $4,475 at two-year colleges; the in-district mean for two-year colleges was $3,305. Of course, many students receive financial aid of various kinds to help offset these costs.

Table 4. Annual tuition and fees at Idaho public colleges and universities

		2018–19
Two-year institutions	In-district	3,305
	In-state	4,475
Four-year institutions	In-state	7,399

Notes: This information is based on computations from the National Center for Education Statistics College Navigator at https://nces.ed.gov/collegenavigator/?s=ID&ct=1.

How do these costs compare to the earnings premiums from higher education? Recall that the average earnings for Idaho workers with an associate's degree are $56,550; this is $9,366 more than the average earnings of workers with only a high school diploma. Thus, the costs of tuition and fees at two-year colleges can be quickly recouped from the average earnings premium for associate's degrees relative to the high school diploma. The average earnings for bachelor's degree graduates in Idaho are $79,114, an amount that is $31,930 more than the mean earnings of high school graduates. Again, the costs of tuition and fees at four-year schools are relatively small compared to the average earnings premium associated with a bachelor's degree.

However, tuition and fees are not the only costs of attending higher education. Books and supplies, room and board, and commuting costs all add up. In addition, lost earnings from not working is a consequential opportunity cost of attending higher education. Although it varies for students with different job opportunities, it is reasonable to expect average lost earnings from reduced work during college to be in the tens of thousands of dollars. Table 5 presents what may be considered an upper-bound estimate of the full cost of college for students in Idaho; in other words, these figures are intended to illustrate the maximum costs in reasonable circumstances. As these figures illustrate, higher education can certainly be quite costly.

Table 5. Upper-bound college cost estimate

Tuition and fees	8,000
Books	2,000
Room and board	10,000
Lost earnings	30,000
Annual cost	50,000
Four-year cost	200,000

Notes: These back-of-the-envelope estimates are based on various sources and assumptions. These are intended to be upper-bound estimates, and most Idaho students would incur lower costs. Estimates for books and room and board were based on consulting the NCES College Navigator and university websites.

Yet because the mean earnings difference for bachelor's degree holders relative to high school graduates in Idaho is $31,930, even the upper-bound four-year cost can be recouped from average earnings differences in less than seven years. If early-career college graduates make much less than the average, it may take longer to recoup this investment; however, if lost earnings (or room and board) are much less than estimated here, the costs of higher education will be recouped even more quickly.

VI. Summary and conclusion

We see that education correlates positively with earnings among workers in Idaho. We also see that college earnings premiums differ in key ways between Boise and the rest of the state. Most obviously, the wage premiums associated with higher education are greater for workers in the Boise area than in the rest of Idaho. In other words, the state's largest labor market provides the highest return to educational investments on average. Although the Boise area has experienced remarkable economic growth in recent years, less-educated workers haven't benefitted like their more-educated counterparts. The result is widening inequality between those with and without a college education.

The large college wage premiums in the Boise area are in part an artifact of especially low incomes for high school graduates there. In fact, high school graduates earn less in the Boise area than in other parts of Idaho, while Boise workers with college degrees out-earn college-educated workers in the rest of the state. Comparing the Boise MSA to other MSAs in neighboring states confirms that the Boise area has especially low average earnings for high school graduates. This is a puzzling and potentially troublesome result. The report presents suggestive evidence that this finding is unlikely to be driven by individuals moving to Boise or weak labor demand. Perhaps K–12 education or a lack of career training in the Boise area is not providing the most valuable skills for students who forego college and go straight to work (see the *Afterword* for more). Clearly, further investigation is needed.

Several broad implications follow from this analysis. For most young people living in the Boise area who plan to remain there, it is advisable that they get at least some higher education. An average young person in the Boise area who completes even a two-year degree should expect sufficient earnings gains to recoup the costs of college within a few years. The mean earnings for people with bachelor's degrees are even higher. Public college and university tuition and fees in Idaho are relatively modest compared to the large earnings gains over the course of a lifetime.

Education policymakers and administrators in the Boise area—and throughout the state—should also take a serious look at how their schools are preparing young people for the workforce. Such skills are constantly changing. Students who forego college need both applied practical skills to hit the ground running and basic skills related to critical thinking, problem solving, and lifelong learning. Young people need help to better understand the opportunities available to them and the skills they will need to pursue them. Information is key, but too much can be overwhelming to young people standing at the door of opportunity. Materials related to careers and skills need to be conveyed to young people in ways that are clear and compelling to them.

For the many high school graduates who are already in the labor force, some can still pursue a college education, including community college and online programs, to improve their skills and earning potential. For those working adults with families and other responsibilities, skill acquisition on the job may be more viable. Model employers should invest in their workers' skills to help them grow their careers; the public has an interest in encouraging employers to do so. In today's economy, a good job provides opportunities for a worker to learn and grow. The jobs of tomorrow will require more than just the skills of the past.

Afterword: A more productive Idaho workforce

*By Adam Tyner and Amber Northern**

We offer several ideas for improving alignment between education and employment in Idaho and increasing the productivity of the state's future workers. Increasing the skills of Idaho's workforce will help improve the earning power of all types of workers and may especially boost earnings for the state's workers who do not go to college. These recommendations are based not only on the report's findings but also on our knowledge of existing efforts underway in Idaho and other states.

1. **Idaho should continue to develop flexible but specific pathways that enable students to build sophisticated skills through concentrated course-taking.**

As this report shows, in Idaho, even associate's degree holders earn more than workers with no postsecondary education, and this is even truer in the Boise area. This means that increasing skills and education is key, even though a bachelor's degree is not every worker's goal. Idaho's investments in the SkillStack and Next Steps Idaho websites already make it possible for students, educators, and professionals to follow education pathways that lead to specific careers.[14] These websites help students identify courses and credentials offered at a variety of the state's educational institutions, including community colleges and online programs.

Yet most districts, particularly those located in rural settings, can support only a few specific pathways well. Financial resources are scarce, and schools are rarely able to invest in the equipment and expertise necessary to implement multiple programs at a high level. Following this "less-is-more" strategy, the state can make a concerted effort to encourage districts to specialize and focus on two or three specific paths that play to their local strengths.

The state's dual-credit and technical-competency-credit programs, which enable students to earn college credit for demonstrated technical skills, offer important pathways for students. But Idaho might consider explicit policies that encourage high school students to concentrate in one area. That's because students who complete a full CTE course sequence or a certified program leading to an industry-recognized credential are more likely to be prepared to succeed in an in-demand field than those who dabble in career-oriented courses across several fields.[15] If possible, students should be given the opportunity to explore multiple fields in the middle grades so that they've at least winnowed down their interests by high school. To make these pathways more seamless, the state might consider creating a state-level team, comprised of both education and industry stakeholders, to decide what courses will look like at the middle-upper secondary and postsecondary levels.

STATE TO WATCH: In **Wisconsin**, career pathways start as early as sixth grade and connect to the postsecondary system through dual-credit programs offered in high schools by regional colleges.[16] School districts are required to provide all students with career development and planning services, and staff are trained to help students explore careers and identify and attain their professional goals. Another component of the state-endorsed career pathways is an advising protocol, which is a standardized document describing all potential career pathways, whether they include CTE, work-based learning, academic preparation for postsecondary education, or a combination of these. The state has also developed a set of customized electronic portals that provide information about regional career opportunities to local school staff and students.

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2. **Idaho should examine more systematically the alignment between in-demand jobs and course and program offerings.**

As reported in a recent study released by Hewlett-Packard, "Idaho needs to improve access to quality education and supporting infrastructure, creating more pathways for people in the lower and middle class to increase their skills and share in the growing economy."[17] Additionally, a recent report on career and technical education (CTE) demonstrates that there is a significant and positive association between a specific industry's local employment share and the likelihood that a student takes related coursework.[18] Thus, studying and making transparent the alignment between the jobs that are most in demand and the educational programs available to students is a good first step to boosting such access.

That said, a purely data-driven forecasting approach has limits, and a forward-thinking strategy should be a part of the equation, as well. As Professor Winters explains in this report, jobs and human capital interact. Even if the college earnings premium were low, that would not mean that developing local skills is a poor strategy. Increased skills in a given market could lead companies to relocate there or local entrepreneurs to start businesses that depend on a more skilled workforce.

STATE TO WATCH: **Kentucky** leaders recently undertook an analysis to determine which fields had the most career opportunities and what schools and technical academies had programs that led to careers in those fields, creating a heat map showing where students had the most and least access to these programs.[19] Kentucky's approach also integrated a deliberate strategy with the state's data-driven job projection forecasts. Specifically, they identified information technology (IT) as a promising field in rural and deindustrialized regions of the state where telecommuting presents the opportunity to earn a high salary without moving or commuting. The hope is that such information encourages secondary schools in those regions to offer and strengthen IT programs.

3. **Idaho should develop more options for students to pursue high-quality coursework in science, technology, engineering, and math (STEM), including through new types of schools.**

To augment opportunities for students to pursue specific career pathways, Idaho may choose to develop specialized schooling sites with curricula focused on technical-career preparation. These sites could include regional STEM academies, state-sponsored academies focused on science and math, and regional vocational schools birthed through collaborations between schools and local industries. Regional academies can be especially effective in states with significant rural populations, as local high schools may be too small to develop high-quality programs independently.

STATES TO WATCH: **Ohio** has excelled in developing such alternatives, enabling schools from all sectors—traditional public schools, charters, and private schools—to earn a state STEM designation that validates their focus on a specialized curriculum and/or project-based approach to education.[20] For example, the Global Impact STEM academy in Springfield, Ohio, offers programs in food science, biotechnology, energy, and environment and draws students from multiple districts and counties in the Springfield region.

Another possibility is to create a statewide STEM academy, as **North Carolina** and other states have done. The North Carolina School of Science and Mathematics is a residential academy enrolling around 700 juniors and seniors, with a project-based curriculum focused on science and math. Despite being residential, it provides online education and supplementary summer programs for students across the state[21] (other states with similar statewide models include Illinois, Indiana, Mississippi, Oklahoma, and Texas). Not only do such specialized schools prepare students to excel in STEM fields, but they can also help strengthen STEM human capital in the state by facilitating curriculum development, offering online/summer courses and programs, and hosting opportunities for teacher professional development.

In **Massachusetts**, regional vocational and technical high schools (RVTS) are entirely devoted to CTE instruction. All students are expected to participate in some form of CTE, typically alternating on a weekly basis between full-time academic coursework and full-time work in their technical area. More than 90 percent of programs offered in RVTS settings are designated as Chapter 74 approved, meaning that they receive additional funding from the state if they can document partnerships with organized labor representatives and local industry leaders intended to improve curricula, performance-evaluation standards, and/or equipment procurement. This public-private collaboration presumably keeps training relevant and program offerings in line with local labor-market needs. In the occupational areas of information technology and manufacturing, engineering, and technology in the Bay State, CTE programs are growing, in sync with rapid labor-market expansion.[22]

4. **Idaho should consider encouraging schools and districts to rethink the role of academic advisors, exploring the extent to which teachers, parents, and other community members can help guide students on their education and career prospects.**

Over the last decade, the student-to-counselor ratio in Idaho's schools increased by about 19 percent, from 451 to 538 students per counselor, moving even farther from the 250-to-1 ratio recommended by the American School Counselor Association.[23] Broadening the pool of adults who can mentor students not only might fill this need for student guidance but also provide students with fresh perspectives on the types of careers they might find satisfying and what it takes to prepare for them. Moreover, increased involvement of parents and the community in such activities may also promote greater buy-in and spur parent and community engagement with high schools.

Of course, recruiting other members of the community to donate time to guide and mentor students may present challenges, especially in communities where parents themselves are underskilled or when transportation and other barriers make it difficult for citizens to help.

STATE TO WATCH: **Oklahoma**, as part of its Individual Career and Academic Planning program (ICAP), has made student advising a community-wide enterprise. Each school has an ICAP core team that develops a school-based career guidance curriculum and assigns specific roles to students, faculty, parents, and community members. This holistic approach to counseling expands opportunities for student mentorship beginning in the sixth grade, as well as for work-based learning experiences in high school and beyond.[24]

5. **Idaho should consider incorporating early postsecondary opportunities (EPSOs) and attainment of industry-recognized credentials into its high school accountability system.**

Idaho's current K–12 Report Card includes data related to teacher quality, graduation rates, and performance on Idaho's high school standardized assessments in ELA, math, and science (including whether growth targets were met). The addition of a metric that designates students as "college or career ready" would not only signal valuable information to college admissions officers or potential employers but also, more pragmatically, better focus high schools on strengthening their CTE programming. For example, Idaho could add a metric representing the percentage of students who meet a college-ready standard on Idaho's high school standardized tests or who complete an early postsecondary experience (EPSO), including earning Advanced Placement (AP) credit, dual-enrollment credit, or an industry-recognized credential (IRC). Such an expanded definition of academic readiness would incentivize all types of schools to offer job-oriented credentials. It would also provide an additional reason for small districts and rural districts to work together via regional academies or other collaborative institutions to ensure that students have the opportunity to earn these credentials.

Students can benefit greatly from taking advantage of postsecondary opportunities while still in high school. Not only does completing these programs make students more employable in the short term, but it gives them a knowledge base upon which to build further education and training. AP and dual-enrollment credits not only save students money if they attend college but also subject them to more rigorous coursework that improves their chances of succeeding at college if they go. IRCs in fields as varied as healthcare, IT, advanced manufacturing, and business administration can be stackable, meaning that they qualify students for more advanced training that can, in turn, lead to even better-paying employment.

Changing high school accountability systems to focus on high-quality college and career readiness is not without some hazards, however. For example, once attainment of IRCs is incentivized in an accountability system, leaders may drive young people toward low-effort and low-quality credentials that may boost the status of schools but not of students. A focus on only the most rigorous credentials, however, could create other pitfalls by decreasing student flexibility. Moreover, higher-quality credentials may cost more to attain, requiring more resources from cash-strapped districts or from student families, therefore raising equity concerns. Likewise, dual-credit programs sometimes lack quality-control mechanisms to ensure that the credit students earn represents college-level achievement. In short, a focus on postsecondary credit and IRCs in an accountability framework requires careful navigation.

STATES TO WATCH: High school accountability systems in **Louisiana**, **Tennessee**, and **Wisconsin** include measures of career readiness, such as the proportion of students earning industry-recognized credentials, which complement schools' academic ratings.[25] In Louisiana, where the state classifies IRCs based on a "starred" system (one through five stars), the state researched which credentials students were earning. After realizing that schools were guiding students toward lower-quality credentials, in 2018 the state proposed restructuring the ways schools were held accountable to better promote "high-value" (four- and five-star) IRCs, essentially giving these higher-value credentials greater weight.

Endnotes

[1] Escobari, Marcela, Ian Seyal, José Morales-Arilla, Chad Shearer, "Growing Cities that Work for All: A Capability-Based Approach to Regional Economic Competitiveness," Brookings Institution, May 2019, https://www.brookings.edu/wp-content/uploads/2019/05/GrowingCitiesthatWorkforAll-FINALforWeb.pdf.

[2] This state-based report was created in conjunction with a larger national report on the college wage premium, to be released by the Fordham Institute in spring 2020.

[3] The Boise MSA is also referred to as the "Boise area" throughout this report.

[4] The raw data were accessed from IPUMS-USA at https://usa.ipums.org/usa.

[5] Because the analysis focuses on full-time, full-year workers who are strongly attached to the labor market, the mean earnings reported will be higher than an alternative sample that includes workers more weakly attached to the workforce. Additionally, mean earnings are moderately higher than median earnings for this sample, but the analysis focuses on the former as a more straightforward and comprehensive earnings measure.

[6] Note that the differences in average earnings across workers with different levels of education does not imply any causal link between education and earnings. Different types of workers tend to pursue different types and levels of education, and in a mobile state such as Idaho, workers relocate based not just on job matching and income but due to cost-of-living and quality-of-life concerns as well. This report presents actual earnings figures for workers with different levels of education and cannot adjust for these other complicating factors.

[7] In further analysis, these ratios for Boise MSA were compared to other large MSAs in the United States, defined as those with a 2010 population greater than 500,000. Boise ranked fifth (out of 104) in earnings ratio between associate's degrees and high school diplomas and twenty-ninth in earnings ratio between bachelor's degrees and high school diplomas.

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[9] This includes all areas of Idaho that are not part of an MSA. Areas in the Boise, Coeur d'Alene, Idaho Falls, Pocatello, Lewiston (Idaho-Washington), and Logan (Idaho-Utah) statistical areas are excluded.

[10] These include all MSAs in the states of Montana, Nevada, Oregon, Utah, Washington, and Wyoming.

[11] Maria L. La Ganga, "'Go back to California': Wave of newcomers fuels backlash in Boise," *Los Angeles Times*, November 10, 2019, https://www.latimes.com/california/story/2019-11-10/go-back-to-california-wave-of-newcomers-fuels-backlash-in-boise.

[12] The author's calculations are based on American Community Survey data from 2014 to 2017.

[13] Students qualify for the in-district rate of a particular two-year college if they reside in a nearby county that uses local property tax revenue to financially support the two-year college.

[14] "Idaho Division of Career and Technical Education," 2019, https://cte.idaho.gov.

[15] Daniel Kreisman and Kevin Strange, "Depth Over Breadth," *Education Next* 19, no. 4 (2019), https://www.educationnext.org/depth-over-breadth-value-vocational-education-u-s-high-schools.

[16] "New Skills for Youth 2018 Snapshot: Wisconsin" (Silver Spring, MD: Advance CTE, March 2019), https://careertech.org/resource/wisconsin-2018-nsfy-snapshot.

[17] *Statewide Study on Education and the Economy: Idaho* (Denver, CO: Hewlett-Packard and America Succeeds, 2019), https://americasucceeds.org/wp-content/uploads/2019/10/Idaho-Statewide-Study-on-Education-and-the-Economy-HP-inc-and-Idaho-Business-for-Education-First-Printing.pdf.

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[25] "New Skills for Youth 2018 Snapshot: Tennessee" (Silver Spring, MD: Advance CTE, 2019), https://careertech.org/resource/tennessee-2018-nsfy-snapshot. "New Skills for Youth 2018 Snapshot: Louisiana" (Silver Spring, MD: Advance CTE, 2019), https://careertech.org/resource/louisiana-2018-nsfy-snapshot.