

The Economic and Fiscal Impacts of Education and Training Beyond High School in Florida

June 2022





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Chairman of the Board of Trustees

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Dear Fellow Taxpayers,

With our economy rising out of the pandemic far faster than most states, Florida has secured its place as the 15th largest economy in the world. To continue fueling economic growth, we must develop a workforce ready to take on the needs of an increasingly technological future. Of Florida's fastest growing, highest paying jobs, most require training and education beyond high school. Postsecondary learning plays a crucial role in propelling Florida and the lives of Floridians forward.

The state has set a goal for 60 percent of its working-age residents to have a postsecondary certificate, credential, training, or degree, and if this goal is achieved, the innumerable benefits of a specialized workforce ripples across the state. Florida could expect an additional \$53.6 billion of earnings annually if the percent of specialized workers in each of Florida's demographic groups became comparable. The earnings result in greater spending, bolstering businesses and contributing \$4.7 billion in tax revenue, which in turn can be used to continue bettering our great state.

A ready, specialized workforce can change the dynamic of our communities. In the face of shortages, workforce development is vital for sustaining services our society relies most heavily upon, such as nursing and teaching. As Florida communities advance their economies, attracting and retaining high-value, high-wage industries will depend upon maintaining a worker supply with aligned talents.

Most importantly, affordable, accessible, and effective workforce development is imperative for securing the success, resiliency, and livelihood of Florida residents. Specialized skillsets will ensure our residents can find gainful employment, stay self-sufficient, and produce greater earnings. Workforce development can end the trappings of poverty and open the doors to new opportunities.

Training and education beyond high school should extend across all of Florida's populations. Barriers to workforce development programs are a growing threat to our state's economy and wellbeing. Learning institutions and community partners will need to be resourceful and innovative to capture a wider array of students with a diversity of needs.

Florida TaxWatch, as an independent, nonpartisan, nonprofit, government watchdog, has evaluated the incomparable rates of educational attainment in Florida, calculated the benefits of trainings and education, and reviewed effective programs across the state that strive to better the state's workforce development. It is my hope that this research will help the state to critically consider the education-to-workforce pipeline and to further policies that encourage specializations across the entirety of Florida's diverse population.

Sincerely,


Dominic Calabro
President & CEO


Dear Readers,

In 2019, the Florida College Access Network (FCAN) and its work were recognized in Florida statute for supporting the state's *SAIL to 60* goal, where 60% of Florida working-aged adults will hold high-quality degrees, credentials, and training experiences by the year 2030. Since then, FCAN has worked to lead the collaborative movement to ensure every Floridian achieves an education beyond high school and a rewarding career.

Even though we have seen great success, we still have only about half the Florida population with a high-value postsecondary certificate, degree, or credential. Additionally, Black and Hispanic Floridians trail white Floridians in attaining degrees by significant amounts; however, Black and Hispanic Floridians will make up a majority of the workforce by 2030, so Florida must close the attainment gap among these groups.

Knowing this, FCAN asked Florida TaxWatch to use its economic expertise to conduct an independent analysis of the benefits of equal educational attainment. We believe these findings affirm our mission that for the state to reach its full potential, students outside the mold of the "traditional" post-secondary student cannot be left behind. As the respected Florida TaxWatch clarifies, despite Florida's recent strong economic growth, we all stand to benefit when more Floridians contribute to the economy. Increased educational attainment means greater opportunity and a more vibrant future for Floridians and our state.

Sincerely,

A handwritten signature in black ink that reads "Charleita M. Richardson". The signature is fluid and cursive, with the first name being the most prominent.

Charleita M. Richardson

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Executive Summary

In 2019, with the SAIL to 60 Initiative, Florida aimed for 60 percent of working-age Floridians to hold a workforce specialization, whether from a certificate, credential, training, or degree. Currently, Florida has yet to reach this goal, falling 791,000 people short, and its individual populations are working toward the goal at incomparable rates.

In January 2022, Florida TaxWatch released “The Economic and Fiscal Impacts of Education and Training Beyond High School in Florida,” which identified current education achievement gaps and how these gaps impact Florida’s economy. This initial briefing reported that:

- Compared to other demographic groups, Asian and White adults have the greatest proportion of postsecondary degrees;
- The percentages of Hispanic and Black populations earning a bachelor’s degree or higher are significantly lower compared to other demographic groups;
- The percentages of White, Black, and Hispanic females with an associate degree or higher are eight to ten percentage points greater than their male counterparts; and
- While postsecondary training is an important type of specialization, their inclusion in the aforementioned calculations would not have revealed more comparable achievement among the different demographic groups.

In this subsequent paper, Florida TaxWatch includes previous findings but also considers what is needed to reach the 60 percent target; further examines the economic, fiscal, and societal benefits of education and training beyond high school; and recommends considerations for policymakers.

The SAIL to 60 is a moving target. Over the next ten years, the state must be ready to replace 1.2 million specialized workers as they age-out of the working-age population. Florida’s population is also expected to grow, making the number of workers needing specializations higher than preceding years. The Hispanic and Black populations are expected to show the most growth, meaning increasing their postsecondary achievement rates will be critical to meeting the workforce needs of the future.

If Florida’s diverse populations began achieving certificates, credentials, trainings, and degrees at similar rates, the state and its residents could expect great economic and social benefits. Specialized workers can expect better job outcomes and attract high-value industries to the state. Specialized workers garner higher earnings, with comparable achievement offering the state an additional \$53.6 billion in earnings. Not only does this enable the self-sufficiency of residents but it also equates to higher spending, which further boosts the economy and can result in an estimated \$4.7 billion in tax revenue. Floridians may also witness positive societal changes from a specialized workforce, including better reported health statuses, social fulfillment, greater civic engagement, and strengthened intergenerational outcomes.

To improve achievement rates and reap the benefits of a more specialized workforce, the state must overcome the following challenges: (1) Individuals must have a thorough understanding of likely job and earning outcomes to be motivated to succeed; (2) Additional education and training can adversely affect a household’s financial stability; (3) On-boarding programs and preparatory classes may be necessary to ensure an individual

is ready for the academic rigors associated with additional training and education; (4) Additional skills and knowledge may be required to navigate higher education and workforce credentialing systems; (5) Learners may need support to balance additional learning with other responsibilities; and (6) Learners need readily available resources to connect with jobs upon completion of their learning program.

Florida has a sturdy foundation from which to grow its workforce development. Agencies such as the Florida Department of Education and Florida Department of Economic Opportunity collect data regarding the performance of schools and the demands of the economy, which helps stakeholders determine the needs of the workforce development system and to identify the right strategies to reinforce it. The state continually seeks ways to limit the costs of workforce development for students, including free career development within secondary schools, low tuition costs, scholarship and financial aid, a money-back guaranteed program, and career resources that connect workers to paid learning opportunities, such as apprenticeships. The Florida Legislature passed the REACH Act in 2021, which provides residents with more workforce development opportunities.

Florida can also find inspiration within its smaller communities, as local governments, learning institutions, and nonprofits innovate new strategies and invoke collaborations to better their local workforces. With a focus on approaches particular to their regions, the different initiatives provide a replicable framework for utilizing available resources in ways that best satisfy identified needs.

Upon reviewing effective programs and evaluating the needs of the state, Florida TaxWatch recommends the following as important guidelines and considerations for the focus of policy and local actions.

1. Promote academic readiness throughout the education system.
2. Connect current and future workers to data-informed career-planning resources.
3. Expect and facilitate learning pathways that allow students multiple ways to participate in postsecondary training and education.
4. Empower community-based solutions and partnerships.
5. Maintain and enhance affordability of training and education beyond high school.
6. Encourage the persistence of active learners and the return of “stop-out” students.
7. Design, implement, and advertise learning programs that offer multiple outcomes for student success.

Educational Attainment in Florida

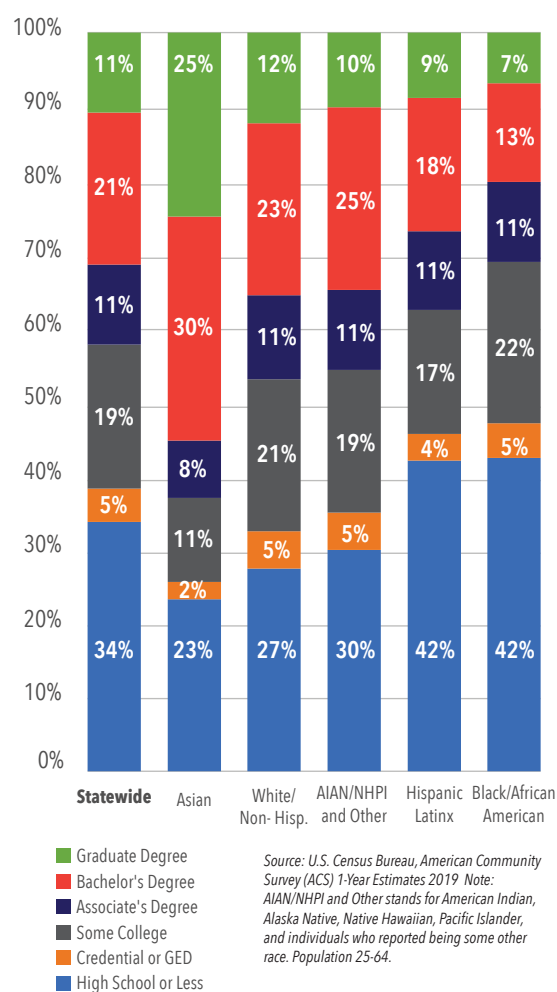
The 2019 Florida legislature passed House Bill (HB) 7071, which established the “SAIL to 60” initiative.¹ The SAIL to 60 initiative aims to increase the percentage of working-age Floridians with postsecondary degrees or certificates/training to 60 percent by the year 2030. The Lumina Foundation estimates the total percentage of Florida’s working-age population with a specialization, whether with a degree or non-degree credential, is 52.8 percent,² suggesting Florida is 7.2 percent—791,200 people—away from its 60 percent educational attainment target.³

In recent years, Florida began to collect data regarding non-degree credentials, but the data have not been collected long enough to fully understand the impact of non-degree credentials upon the entire working-age population, nor can most of the data be disaggregated by race and ethnicity. Therefore, as Florida TaxWatch analyzes educational attainment beyond high school for differing populations, the data are solely based upon the attainment of degrees.

Findings

Statewide, 43 percent of the working-age population holds a degree (see Figure 1) but racial and ethnic populations attain degrees at different rates. The Asian and White populations attained more degrees than the state’s average, with 63 percent and 46 percent attaining degrees, respectively. The combined populations of American Indians, Alaska Native, Native Hawaiian, other Pacific Islanders, and other unspecified races (AIAN/NHPI and Other) also attained more than the state average (46 percent), but the sample size is very small, resulting in a less accurate estimate.⁴ The Hispanic and Black populations attained fewer degrees, with degree holders comprising 38 percent and 31 percent of their respective populations.

Fig. 1. Educational Attainment for Hispanic and Black Populations Trails the Statewide Average



¹ SAIL to 60 is an acronym for “Strengthening Alignment between Industry and Learning.”

² Lumina Foundation, “Stronger Nation,” retrieved from <https://www.luminafoundation.org/stronger-nation/report/#/progress/state/FL>, accessed on January 10, 2022.

³ Ibid. Florida TaxWatch subtracted 52.8 percent of the working-age population from 60 percent of the working-age population. $(0.6 * 10,988,897) - (0.528 * 10,988,897) = 791,200.584$.

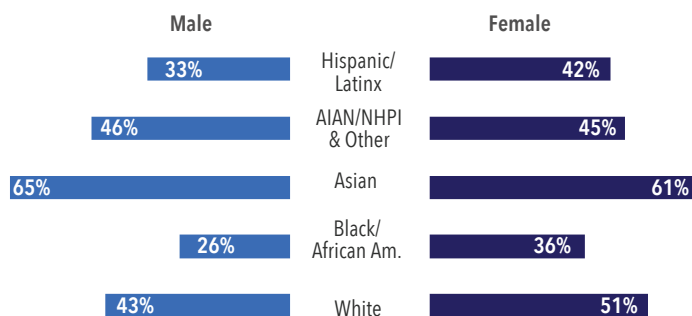
⁴ AIAN/NHPI and Other includes the Census data sets for American Indians/Alaska Natives; Native Hawaiian and Other Pacific Islanders; and Other. The populations are usually combined by researchers in attempt to create a larger sample size.

Aligning with trends nationwide, education and training beyond high school are most often pursued by women. Within Florida's largest demographic populations—White, Black, and Hispanic—about 10 percent more women pursue a postsecondary education compared to men. Women have outpaced male enrollment throughout the 21st century.⁵

While greater percentages of women hold a degree, there is evidence that greater

percentages of men have a non-degree credential. During the 2019-2020 school year, the National Center for Education Statistics (NCES) estimated that White males had about four thousand more enrollments than White women; however, women in Black and Hispanic populations enrolled more often than their male counterparts.⁶ Although overall male enrollment of non-degree credentials is greater than female enrollment, female enrollment still outpaces male enrollment when reviewing the cumulation of degree and non-degree enrollments.

Fig. 2. Within Most Of Florida's Working-Age Racial And Ethnic Populations, Higher Shares Of Women Earn A Degree Compared To Male Counterparts



Maintaining the State's Future Workforce Needs

Florida needs workforce development structures that can maintain a high percentage of specialized workers within the context of population changes. Today, with a workforce of about 10.9 million residents, Florida needs a total of 6.6 million residents with an education or training beyond high school to reach the SAIL to 60 target. Ten years from now, with a workforce of about 11.6 million residents, Florida will need 6.9 million residents with a specialization. In twenty, with a workforce of about 12.6 million residents, Florida will need 7.4 million residents to meet the target. As Florida's population grows, the number of needed workers will continually rise.⁷

Florida must also be ready to replace those who age out of the workforce. With the upcoming departure of the Baby Boomers, 32 percent of the current credentialed White population will no longer be of working-age within ten years.⁸ The current credentialed Hispanic and Black populations are younger, with only 21 percent of each no longer categorized as working-age within the next ten years.⁹ Due to these departures, Florida must not only consider developing the workforce to attain additional benefits but also to recoup 1.2 million

5 National Center for Education Statistics, "Student Enrollment: How many students enroll in postsecondary institutions annually?" retrieved from <https://nces.ed.gov/ipeds/TrendGenerator/app/build-table/2/2?f=6%3D12&rid=57&cid=13>, accessed on January 20, 2022.

6 Ibid.

7 Florida Demographic Estimating Conference, March 2021.

8 U.S. Census Bureau, American Community Survey, 1-Year Estimates (2019). Florida TaxWatch defines the working-age population as those 25 to 64 years old. Florida TaxWatch divided persons with ages 54-64 and degrees by the total working-age populations with degrees to determine the percentage expected to retire over the next ten years. $846,488 \div 2,630,508 = 0.322$.

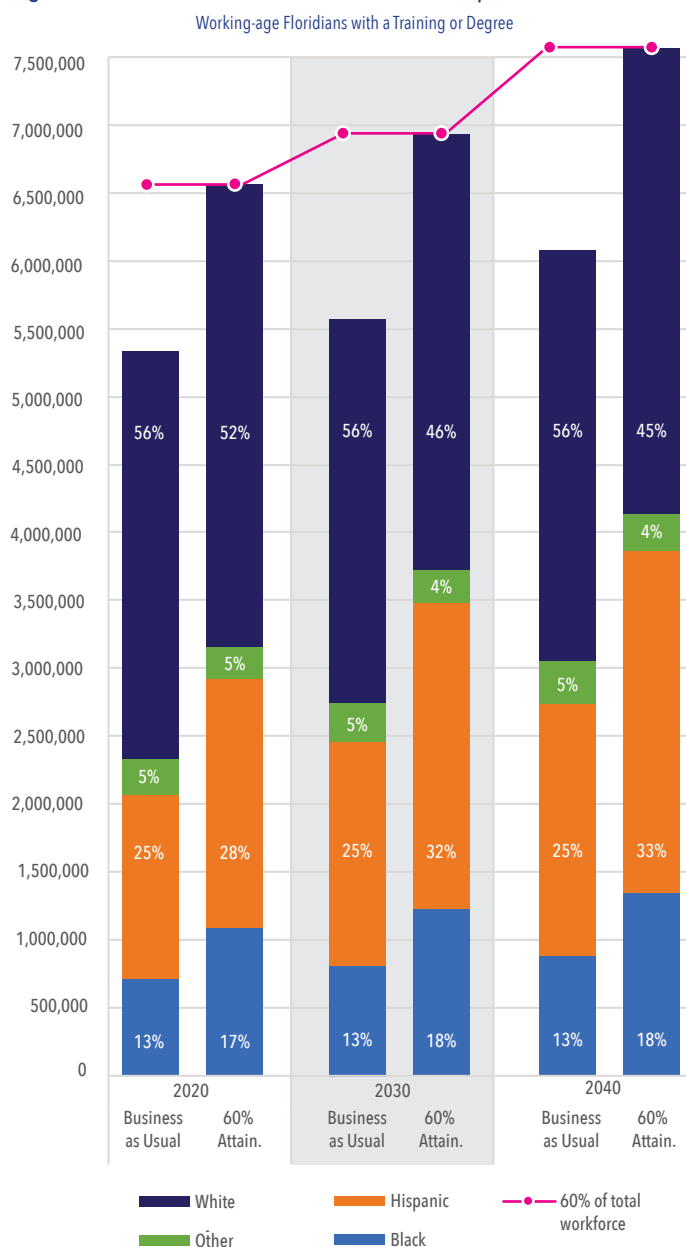
9 U.S. Census Bureau, American Community Survey, 1-Year Estimates (2019). Florida TaxWatch defines the working-age population as those 25 to 64 years old. For each population, Florida TaxWatch divided persons with ages 54-64 and degrees by the total working-age populations with degrees to determine the percentage expected to retire over the next ten years. Hispanic Population: $240,585 \div 1,153,189 = 0.208$. Black Population: $114,551 \div 535,183 = 0.214$.

specialized workers likely to retire within the next ten years.¹⁰

Florida's population change will be influenced by demographic shifts. By 2030, no population is expected to comprise a majority, and the Hispanic and Black populations are expected to grow to be a third and fifth of the working-age population, respectively. If the percentage of achievement stagnates, with only 38 percent of the Hispanic population and 31 percent of the Black population attaining degrees, Florida's total population will actually retreat from its 60 percent goal (see Figure 3).¹¹ As Florida plans to increase its specialized workforce, growing populations are key areas of opportunity.¹²

The most underrepresented populations in education are the populations that are expecting the greatest growth. Florida TaxWatch uses the term “underrepresented” to indicate discrepancies in which a population's share of Florida's total population is larger than its share of Florida's educational attainment. If these populations remain underrepresented, lower percentages of attainment will equate to more workers

Fig. 3. Business as Usual will Increase Florida's Gap from 60 Percent Goal



¹⁰ Due to limited data regarding non-degree credentials, these estimates do not include persons earning a non-degree credential before 2010. The absence of the non-degree credentials results in the estimates being conservative; there are likely more departing workers who hold credentials.

¹¹ Florida Demographic Estimating Conference, March 2021 and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Bulletin 190, June 2021. National Center for Education Statistics, “Student Enrollment: How many students enroll in postsecondary institutions annually,” n.d. Florida TaxWatch used data from the National Center for Education Statistics to determine the number of people within different racial and ethnic groups receiving a short-term credential. The data reflects about 64 percent of the short-term credentials estimated by the Lumina Foundation. The number of people with short-term credentials was added to the number of people with degrees to determine the percentage of each population that has a specialization. For “Business as Usual,” the percentages of each population with a specialization are applied to population changes—based upon the Florida Demographic Estimating Conference—to depict how current percentages will keep Florida farther from its education goal. “60 % attainment” shows the number of people pursuing a training or degree if 60 percent of each racial and ethnic population earned a specialization within each benchmark year. The data labels illustrate the percent each population shares of the overall training and degree attainment for each scenario.

¹² Non-degree credentials from 2000-2019 are counted within the total, representing 6.7 percent of the working-age population. The Lumina Foundation estimated 10.5 percent of the working-age population has a non-degree credential, but since 3.8 percent cannot be disaggregated by race, it is not included within the estimated baseline for each demographic. The Other grouping consists of the following populations: American Indian, Alaska Native, Pacific Islander, Native Hawaiian, Asian, and unknown. The Asian population is now included in this grouping to enable use of the population estimates created by the Florida Demographic Estimating

forgoing the benefits of training and education beyond high school, and the state will lose a ripe opportunity to enhance its economy. Increasing the participation of the underrepresented populations inherently propels Florida closer to its goal but also provides the greatest boost forward.

Moving Toward the Target?

Florida's development of its specialized workforce can be monitored and predicted through enrollment and retention data. While Florida's retention rates have slightly increased,¹³ annual enrollment of postsecondary institutions—which includes first year students and students who are in the midst of finishing their education—has fallen by 12 percent since 2010.¹⁴ This fall of enrollment is especially concerning since the supply of available students has actually grown. Comparing 2020 to 2010, the traditional college-aged population and working-age population have grown by about seven percent and 12 percent, respectively,¹⁵ which suggests a lack of participation is driving enrollment down.

The decline in enrollment is not equal among demographic groups. White and Black populations experienced a 25 percent drop in enrollment since 2010.¹⁶ Within these populations, both male and female enrollment fell at a similar rate, albeit female enrollment fell from a higher starting point.¹⁷ This trend of falling enrollment is frequently attributed to barriers to access and rising skepticism of postsecondary learning's value—both of which are exacerbated by the circumstances posed by the COVID-19 pandemic. Also, most of the decade enjoyed a strong economy, which disincentivizes the pursuit of workforce development.

Despite the overall trend of falling enrollment, Asian and Hispanic populations increased enrollment since 2010.¹⁸ The Hispanic population experienced the highest increases, nearly doubling enrollment within a twenty-year period.¹⁹ Improved high school graduation rates, consistent value of workforce development, and access to targeted support and resources have facilitated the enrollment increases of the Hispanic population; however, challenges produced by the COVID-19 pandemic—such as financial concerns, health risks, and uncertainty of virtual learning—have caused recent declines in the population's enrollment.

The falling enrollment spurred by the COVID-19 pandemic did not pose equal impacts upon learning institutions. Universities and private colleges witnessed mild impacts, but the Florida College System experienced a drastic nine percent drop of enrollment during the fall of 2020.²⁰

13 National Center for Education Statistics, "Trend Generator Graduation and Retention Rates: What is the full-time retention rate in postsecondary institutions?" retrieved from <https://nces.ed.gov/ipeds/TrendGenerator/app/answer/7/32?f=6%3D12>, accessed on January 12, 2022.

14 National Center for Education Statistics, "Trend Generator Student Enrollment: How many students enroll in postsecondary institutions annually?" retrieved from, <https://nces.ed.gov/ipeds/TrendGenerator/app/answer/2/2?f=6%3D12&rid=13&cid=65>, accessed on January 12, 2020. Florida TaxWatch divided the enrollments for the 2019-2020 school year by the enrollments in the 2010-2011 school year and subtracted the quotient from one: $1 - (1,487,746 \div 1,688,911) = 0.119$.

15 Florida Demographic Estimating Conference, March 2021. Florida TaxWatch added the populations for ages 18-24 as well as 25-64 to create the college-aged population and working-aged population. After calculating each from 2010 estimates and 2020 estimates, Florida TaxWatch calculated the percent change.

16 National Center for Education Statistics, "Trend Generator Student Enrollment: How many students enroll in postsecondary institutions annually?" retrieved from <https://nces.ed.gov/ipeds/TrendGenerator/app/build-table/2/2?f=6%3D12&rid=13&cid=65>, accessed on January 12, 2022. Clicking on a cell showed the change of data over time. To calculate what percent of 2010 enrollment levels were lost by 2019, Florida TaxWatch divided the enrollments for the 2019-2020 school year by the enrollments in the 2010-2011 school year and subtracted the quotient from one for each identity.

17 Ibid.

18 Ibid.

19 Ibid.

20 The Florida College System, "The Florida College Factbook," 2020 and 2021. Using Table FB 1.1T in each factbook, Florida TaxWatch calculated the decrease of first year enrollment from the 2019-2020 school year to the 2020-2021 school year: $(433,755 \text{ enrollments} - 392,894 \text{ enrollments}) \div 433,755 \text{ enrollments} = 9 \text{ percent difference of enrollment}$.

Diminishing enrollment is especially concerning for two-year public colleges since they provide low cost and widely accessible venues for educational achievement and pathways to employment. If enrollment continues to drop in the midst of a growing and aging population, the specialized portion of Florida’s workforce could shrink. In reaction, the Florida Department of Education boosted the accessibility of colleges’ workforce development programs with endeavors such as the Rapid Credentialing Scholarship Program and the Get There campaign.

Economic Impacts of Greater Educational Attainment

Higher Earnings

Improving educational attainment across all demographic groups would produce significant economic benefits for learners, most notably a boost in earnings. Higher earnings help individuals but also help the broader community by supporting greater self-sufficiency and spending. Florida TaxWatch conducted an analysis to determine the level of earnings to be expected from comparable educational attainment among racial and ethnic groups.

To quantify the economic gains to students and the state of Florida, a target distribution of educational attainment must be identified for subsequent calculations.

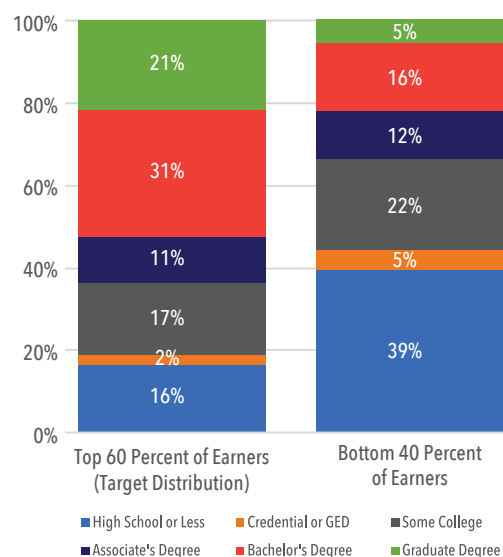
Comparable to previous studies, this analysis considers the educational attainment of the top 60 percent of income earners in Florida to represent an ideal distribution of attainment levels for all racial and ethnic groups. A more ideal distribution would designate the earners with certificates, credentials, and trainings—all of which are fruitful pathways to higher earnings—but since the available data is incomparable to the available data for degrees, they are not included within this estimation.

Incorporating U.S. Census data on Florida’s income and educational attainment rates, the target distribution is displayed in Figure 4. Among the top 60 percent of earners in Florida, 22 percent possess a graduate degree,

31 percent have a bachelor’s degree, and 11 percent hold an Associate’s degree. This target distribution is maintained for future adjustments and calculations. In other words, each demographic group’s educational attainment rates will be adjusted to match the attainment rates found in Figure 4’s top 60 percent of earners column, regardless of current observed rates (See Appendix A for a more detailed methodology).

After identifying a target distribution, Florida TaxWatch then calculates the change in the number of individuals for each demographic group that would be required to attain the targeted attainment levels (See Table 1). In Florida, the adjustment to the target distribution would result in 954,500 more Whites, 809,000

Fig. 4. The Top 60 Percent of Florida’s Earners Possess Higher Educational Attainment Rates



more Hispanics, 564,000 more Blacks, 13,900 more Asians, and 13,000 more AIAN/NHPIs receiving an Associate's degree or higher.

Table 1. Net Change in Number of Individuals to Reach Target Distribution of Educational Attainment

Educational Attainment	Asian	White	AIAN/NHPI & Other	Hispanic/Latinx	Black/African American
High School or Less	-22,803	-609,297	-9,647	-781,423	-445,498
Less Than High School	-8,645	-142,985	-3,350	-319,281	-132,944
High School	-14,158	-466,312	-6,296	-462,142	-312,554
Credential or GED	-192	-156,769	-2,017	-42,847	-42,222
Some College	20,340	-188,437	-1,425	15,035	-76,727
Associate's Degree	11,902	7,163	450	25,226	8,288
Bachelor's Degree	2,002	427,816	4,440	393,398	303,358
Graduate Degree	0*	519,523	8,200	390,611	252,802

Source: Florida TaxWatch; U.S. Census Bureau. *Assigned a value of 0 since attainment rate is already above target distribution.

Table 2. Total Change in Aggregate Earnings After Improved Educational Attainment

Educational Attainment	Asian	White	AIAN/NHPI & Other	Hispanic/Latinx	Black/African American	Total
Less Than High School	-\$262,166,015	-\$4,918,678,718	-\$99,500,463	-\$9,073,965,004	-\$3,473,823,128	-\$17,828,133,329
High School	-\$419,216,388	-\$18,158,180,914	-\$222,955,434	-\$16,345,976,573	-\$9,445,392,555	-\$44,591,721,864
Credential or GED	-\$5,675,017	-\$6,104,580,818	-\$71,436,392	-\$1,515,501,556	-\$1,275,963,893	-\$8,973,157,676
Some College	\$699,909,916	-\$7,626,051,282	-\$57,317,843	\$537,344,610	-\$2,828,923,487	-\$9,275,038,087
Associate's Degree	\$471,542,882	\$322,714,432	\$18,197,161	\$993,146,793	\$300,848,454	\$2,106,449,721
Bachelor's Degree	\$121,394,517	\$25,814,428,398	\$250,529,811	\$17,986,178,780	\$13,605,605,887	\$57,778,137,393
Graduate Degree	\$0*	\$36,584,811,026	\$580,906,425	\$23,475,730,806	\$13,704,388,814	\$74,345,837,072
Total	\$605,789,893	\$25,914,462,123	\$398,423,264	\$16,056,957,856	\$10,586,740,092	\$53,562,373,230

Source: Florida TaxWatch; U.S. Census Bureau; National Center for Education Statistics (NCES). *Assigned a value of 0 since attainment rate is already above target distribution.

Finally, to quantify the aggregate earnings benefit, Florida TaxWatch considers median annual earnings data by race/ethnicity group and educational attainment level in Florida (See Appendix A for values). Annual earnings data for each demographic group come from NCES.²¹ Multiplying these median annual earnings per individual by the number of individuals in each category in Table 1 above yields the aggregate earnings boost. By improving educational attainment across all demographic groups, the state of Florida would derive an aggregate earnings boost of \$53.6 billion annually.²²

Since the calculations are based upon U.S. Census data, Florida TaxWatch only included degrees within the estimates; however, pursuing a postsecondary certificate, credential, or training also leads to better earning outcomes. In 2020, completers of a Florida College System Career Certificate had average annualized earnings

²¹ National Center for Education Statistics (NCES), "Table 502.30" Accessed on Apr. 4, 2022.

²² Note: This estimate assumes the individuals receiving a higher education degree/credential would receive subsequent employment. In reality, employment outcomes are dictated by labor demand and labor supply in various areas, making the actual outcome difficult to precisely estimate.

of \$48,472, compared to high school graduates' \$26,168.²³ Both degree and non-degree specializations should be wielded to further advance Florida's economy.

Spending, Savings, and Gross Domestic Product

Higher earnings can have a ripple effect throughout the economy when individuals spend their earnings in exchange for various goods and services. Gross Domestic Product (GDP)—the total value of goods and services produced within an area in a given year—can effectively capture the expansion in economic activity. To calculate the impact of increased earnings on Florida's GDP, the \$53.6 billion earning boost found in the previous table is multiplied by a factor of 1.1—an economic multiplier suggesting consumers spend 10 percent of their marginal income in the local economy.²⁴ It should be cautioned, however, this conservative multiplier may differ widely between consumers based on consumption behaviors, economic conditions, and available goods and services. Accounting for these ripple effects, higher earnings across Florida's demographic groups (due to improved educational attainment rates) would increase the state's GDP by \$58.9 billion annually.²⁵

Not only do higher earnings enable greater spending but they also enable greater savings (see Table 3). As the level of education increases, both the amount and percentage of money remaining after expenditures increases as well. Spending a smaller percentage of an income allows the earner more money in savings, which encourages self-sufficiency and resilience amid crises.²⁶

Table 3. Workers with Greater Education Earn, Spend, and Save More Money

Highest Education Level	Income before Taxes	Total Expenditures	Expenditures as Percent of Income	Savings
Less than high school	\$31,292	\$33,654	108%	(\$2,362)
High school graduate	\$44,994	\$39,024	87%	\$5,970
Associate's degree	\$69,079	\$55,828	81%	\$13,251
Bachelor's degree	\$102,814	\$70,283	68%	\$32,531
Master's, professional, doctoral degree	\$143,453	\$90,601	63%	\$52,852
Source: Bureau of Labor Statistics				

²³ Florida Department of Education, "Average Annualized Earnings by Education Level," Fall 2020.

²⁴ The factor of 1.1 is a Keynesian multiplier based on each consumer's marginal propensity to consume (MPC). The MPC represents the percentage of income that workers spend rather than save. Formally, the Keynesian multiplier is equal to $1/(1-MPC)$. See Postsecondary Value Commission, *The Monetary Value of Economic and Racial Justice in Postsecondary Education: Quantifying the Potential for Public Good*, May 2021.

²⁵ $GDP = 1.1 * \$53.6 \text{ Billion} = \58.9 Billion .

²⁶ Bureau of Labor Statistics, Total average annual expenditures by Highest Education, Total income before taxes by Highest Education.

Fiscal Impacts of Greater Educational Attainment

Tax Revenue

As discussed in the previous section, higher aggregate earnings across demographic groups would magnify local spending and economic activity. Past academic research and studies from Florida TaxWatch support the finding that when individuals attain higher credentials and degrees, there is an associated increase in average tax contribution.²⁷ To estimate the potential increase in tax revenue for the state of Florida, this analysis considers the average state and local tax burden in Florida. According to the Tax Foundation, Florida's average state and local tax burden was 8.8 percent in 2019.²⁸ Included within the tax burden estimate are general sales, property, excise, license, and other miscellaneous taxes. Assuming a state and local tax burden of 8.8 percent, Florida TaxWatch calculates tax revenue in Florida would increase by \$4.7 billion annually due to higher educational attainment across all demographic groups.²⁹ Future research should seek to account for more nuanced differences in tax rates between localities in Florida. Additionally, this estimate does not account for potential tax benefits to the federal government through a federal income tax.

Safety Net Programs

Education level correlates with the following programs: Supplemental Nutrition Assistance Program (SNAP); Temporary Assistance for Needy Families (TANF); and Medicaid. Populations without a postsecondary degree or credentials are disproportionately represented within these programs. In Florida, 16 percent of workers with a high school diploma rely upon SNAP or yearly food stamps, contrasting with four percent of those with a bachelor's degree or higher.³⁰ About nine in ten TANF adult recipients had less than a high school education in 2020.³¹ According to the Current Population Survey (CPS), the proportion of people with a bachelor's degree or higher using public insurance is half the proportion of people without an education beyond high school.³²

Gaining a better understanding of education's relationship with costly public assistance could be a worthy investment, considering the heavy share they receive from Florida's budget. For Florida's proposed 2022-2023 budget, \$37.3 billion was planned to be spent upon Medicaid and TANF.³³ Not only does this spending use taxpayer dollars, but it also acknowledges the large number of Floridians that are struggling to remain self-sufficient.

27 Florida TaxWatch, *An Independent Assessment of the Value of Broward UP*, Apr. 2021 and Postsecondary Value Commission, *The Monetary Value of Economic and Racial Justice in Postsecondary Education: Quantifying the Potential for Public Good*, May. 2021.

28 Tax Foundation, "State and Local Tax Burdens, Calendar Year 2019," Mar. 18, 2021.

29 Tax Revenue = 0.088 * \$53.6 billion = \$4.7 Billion.

30 U.S. Census Bureau, *American Community Survey (ACS), 1-Year Estimates 2019*.

31 Office of Family Assistance, "Characteristics and Financial Circumstances of TANF Recipients, Fiscal Year 2020," November 2021.

32 CPS Annual Social and Economic (March) Supplement 2021.

33 Florida TaxWatch, "The Governor's FY 2022-23 Budget Recommendations," December 2021.

Societal Benefits of Greater Educational Attainment

Health

Among working-age Floridians, persons with an education beyond high school report better health status (see Figure 5). This could be due to a variety of factors linked to higher educational outcomes, such as higher earnings enabling greater spending upon healthcare;³⁴ greater access to employer-sponsored health insurance;³⁵ or greater participation in healthy habits.³⁶

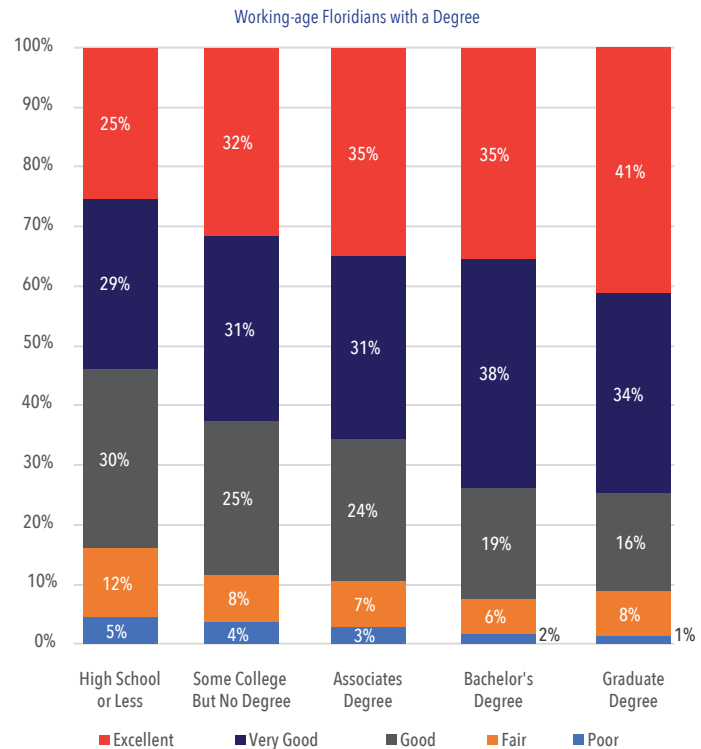
Social Fulfillment

Americans are feeling more lonely and isolated than years ago, and the reduced connection during the COVID-19 pandemic only worsens the situation.³⁷ Among Americans, college graduates seem more adept at maintaining close friendships and informal friends, and they are less likely to feel lonely.³⁸ They are 19 percent more likely to have an activity-based friendship and 16 percent more likely to have a place-based friendship.³⁹ These higher rates of friendships pay off; when college graduates are feeling down, 66 percent claim they have a high level of social support, contrasting with the 52 percent of those without degrees.⁴⁰

Community Participation

Education and trainings beyond high school are connected to volunteerism, civic engagement, and participation in community groups, likely due to increased disposable income and availability of free time. Volunteerism helps communities, with each hour of participation holding an estimated monetary value of

Fig. 5. Educated Working-Age Floridians Reported Better Health Statuses



34 Bureau of Labor Statistics, "Table 2010. Highest education level of any member: Annual expenditure means, shares, standard errors, and coefficients of variation, Consumer Expenditure Surveys, 2020."

35 College Board, "Education Pays 2019," January 2020. College Board shares that nationwide, college graduates are less likely to smoke and more likely to exercise, and more specifically, complete vigorous exercise activities.

36 Ibid.

37 Survey Center on American Life, "The college connection: The education divide in American social and community life," December 2021.

38 Ibid.

39 Ibid.

40 Ibid.

\$28.54.⁴¹ Among Florida's self-described volunteers, 65 percent hold a degree. Most persons who visit a public official, attend public meetings to discuss issues, and voted in the most recent local elections held a degree.⁴² Community groups build neighborly ties and provide charitable acts to communities, and while less than half of those with no more than a high school education participate in a community group,⁴³ seven in ten college graduates do, with nearly half participating in two or more.⁴⁴

Representation

Businesses have expressed increasing interest in a diverse, specialized workforce as an imperative to serving a diverse state. Encouraging diverse populations to participate in more varied workforce opportunities exposes learners to more trades and industry sectors and helps enhance and expand representation across Florida's dynamic work settings. If education and trainings beyond high school extended across Florida's diverse population, a more varied pool of candidates across specialized fields will help businesses realize staff diversity objectives. Increased access across fields not only benefits the employed individual but also the fields they serve. For example, pairing students with teachers of matching race—at least once—increases the chance of students exhibiting positive short-term and long-term outcomes, including higher standardized test scores, better attendance, less suspensions, and reduced probability of high school dropout.⁴⁵ In the medical field, a diverse staff has been observed as more adept to hold effective conversations and help patients feel understood, lending to positive health outcomes.⁴⁶ Within the business world, businesses with gender diversity are 15 percent more likely to outperform those lacking.⁴⁷

Intergenerational Outcomes

Studies recommend a relationship between student outcomes and parents' educational background. A national study found that children ages three to five whose parents had a bachelor's degree or higher were about ten percentage points more likely to be enrolled in preschool,⁴⁸ which can influence better long-term education outcomes.⁴⁹ Once children are old enough to go to college, a report acknowledged higher rates of students with college-educated parents enrolling at postsecondary institutions and persisting through graduation.⁵⁰ These data points suggest investing in education now can facilitate the education of future generations.

41 Independent Sector, "Value of Volunteer Time," retrieved from <https://independentsector.org/value-of-volunteer-time-2021/>, accessed on December 16, 2021.

42 Current Population Survey (CPS) Volunteering and Civic Life Supplement, September 2019. Data reflects Florida's working-age population (25-64).

43 Pew Research Center, "Americans with higher education and income are more likely to be involved in community groups," February 22, 2019.

44 Ibid.

45 Brookings Institution, "The importance of a diverse teaching force," retrieved from <https://www.brookings.edu/research/the-importance-of-a-diverse-teaching-force>, accessed on December 16, 2021.

46 Eastern Michigan University, "Diversity in Nursing: Why It's So Important," accessed from <https://online.emich.edu/articles/rnbsn/diversity-in-nursing.aspx>, retrieved on December 16, 2021.

47 McKinsey & Company, "Why diversity matters," January 2015.

48 College Board, "Education Pays 2019," 2019.

49 Dana Charles McCoy, Hirokazu Yoshikawa, Kathleen M. Ziol-Guest, Greg J. Duncan, Holly S. Schindler, Katherine Magnuson, Rui Yang, Andrew Koepp, and Jack P. Shonkoff, "Impacts of Early Childhood Education on Medium- and Long-Term Educational Outcomes," Educational Researcher, 2017.

50 National Center for Education Statistics, "First-Generation Students College Access, Persistence, and Postbachelor's Outcomes," U.S. Department of Education, February 2018.

Barriers and Opportunities

To realize all the benefits offered by trainings and education beyond high school, communities should seek ways of refining the education-to-work pipeline to further encourage the participation of postsecondary learners. Each part of the pipeline holds essential influence upon a student's journey to joining the workforce. Increasing the likelihood of participation in the specialized workforce and attaining additional education and/or training will require the following barriers to be overcome:

1. Individuals must have a thorough understanding of likely job and earning outcomes to be motivated to succeed;
2. Additional education and training can adversely affect a household's financial stability;
3. On-boarding programs and preparatory classes may be necessary to ensure an individual is ready for the academic rigors associated with additional training and education;
4. Additional skills and knowledge may be required to navigate higher education and workforce credentialing systems;
5. Learners may need support to balance additional learning with other responsibilities; and
6. Learners need readily available resources to connect with jobs upon completion of their learning program.

These barriers are well established and well known, but they continue to persist more for certain populations than others. Florida policymakers should evaluate and address how these barriers specifically affect the groups in most need of achievement gains as well as why certain policies fail to facilitate achievement for all groups. Florida has a strong history of success when connecting known supports with the populations that need them; for example, in the early 2000s, focused initiatives helped the state's racial achievement gap of fourth grade reading scores to narrow faster than national gaps. To mimic this success within higher education and workforce development programs, Florida TaxWatch suggests the following policy considerations.

Recommendation 1. Promote academic readiness throughout the education system.

Achievement gaps start early, and data show that these gaps are correlated with postsecondary enrollment.⁵¹ In elementary school, students need to be on track to read by 4th grade and exposed to career options. By the end of middle school, students should be exhibiting strong skills in math and science and beginning to explore careers. In high school, learning and career development should collide, as students begin experimenting with career paths through classes, internships, and trainings. This tracking readies students to graduate high school and execute the steps needed to start their aspired careers, but Florida has yet to close academic achievement gaps (see Table 4).⁵²

51 Annie E. Casey Foundation, "Reading on Grade Level in Third Grade: How it is Related to High School Performance and College Enrollment," 2010.

52 Florida Department of Education, "Closing the Gap," 2022. The "Ambitious Goal" is set within the Florida Department of Education's Strategic Plan. The goals and monitored percentages of achievement for English Language Arts (ELA) represent students scoring an achievement level 3 or higher in grades 3-10 for the Florida Standards Assessment (FSA) ELA. The mathematics percentages are based upon scores of achievement level 3 or higher for FSA Math grades 3-8 as well as End-of-Course (EOC) exams for Algebra 1, Algebra 2, and Geometry. The science percentages are based upon the Statewide Science Assessment scores of achievement level 3 or higher in grades 5 and 8 as well as the Biology 1 EOC.

Table 4. Florida's Populations Struggle to Meet Grade Level Targets in 2020-2021 School Year

Subject	"Ambitious Goal" for Percent on Grade Level by 2024	Percent of White Population	Percent of Hispanic Pop.	Percent of Black Population	Percent of Asian Population
English Language Arts	65%	63%	48%	34%	77%
Mathematics	73%	61%	43%	27%	77%
Science	61%	65%	46%	31%	78%

Source: Florida Department of Education, "Closing the Gap."

Meanwhile, for workers who do not graduate high school with fruitful career development or seek new employment paths, venues that ready adults for entry into workforce development programs are also important.

Every effort should be made to make students strong readers by the fourth grade. Programs like the Florida Grade-Level Reading Program, which is designed to raise the reading scores of young students by focusing on community-based solutions to conditions that influence student reading gains (e.g., attendance, health, summer learning, family engagement, etc.), have shown success and could be replicated by communities across Florida.

Mentorship programs motivate students to remain engaged in school and aspire toward ambitious futures. The individualized support, higher expectations, and modeling provided by a mentor can benefit a student's mindset toward learning. Research shows that young adults who had a mentor are more likely to be enrolled or plan to enroll in postsecondary education than young adults who never had a mentor.⁵³ Altogether, programs like Big Brothers Big Sisters and Take Stock in Children serve more than 350,000 students each year, impacting the direction of students' lives. Of students who participate in Take Stock in Children, for example, 88 percent enroll in college.⁵⁴

Recommendation 2. Current and future workers should be connected to data-informed career-planning resources.

When encouraging postsecondary education, career planning tools help learners understand the benefits of specialized careers as well as the knowledge needed to reach aspirations. While Florida has structures to help inform residents, ensuring that residents are aware of the availability of career planning tools—and have the skills to navigate the tools—is a challenge. The challenge is heightened when trying to motivate workers with low career expectations, and thus not even looking for available opportunities. A national survey found that only 1 in 3 workers without a degree have a very good understanding of potential career paths, the value of differing skills, and details about education programs.⁵⁵

Residents are often first made aware of their career options through school counselors at secondary schools. In Florida, students of color and students from low-income families have unequal access to school counselors.⁵⁶

53 Civic Enterprises "The Mentoring Effect: Young People's Perspectives on the Outcomes and Availability of Mentoring," January 2014.

54 Take Stock in Children, "Accountability Report 2021-2022," 2022.

55 Strada, "Public Viewpoint: Interested But Not Enrolled: Understanding and Serving Aspiring Adult Learners," September 2020.

56 The Education Trust, "School Counselors Matter," February 2019.

Florida also lacks the number of counselors needed to best serve its secondary schools; while the American School Counselor Association recommends a ratio of 250 students to one school counselor, Florida exhibits a ratio of 434:1.⁵⁷

It is important to collect data that inform career planning resources and to design programs promoting career development. The education-to-workforce pipeline requires many data sources to make an informed evaluation of current practices and aid the development of new strategies. The Florida Department of Education (FLDOE) collects and publishes data that detail academic performance, class enrollment, the attainment of postsecondary credentials within secondary settings, and K-12 school improvements.⁵⁸ These data are used to monitor the development of foundational learning skills as well as to evaluate the use of early career development tools, such as advanced classes and postsecondary trainings, within high schools.

The FLDOE also collects and publishes data regarding enrollment and graduation rates for Florida College System and State University System institutions. This data collection effort has been enhanced to include data on the attainment of short-term credentials. By publishing the enrollment and persistence of residents aspiring toward specialized careers, the data can be used to evaluate the success of training and education programs as well as the barriers to student achievement. To complement this data, individual schools and nonprofits also monitor the achievement of specific programs to help distinguish which strategies are imparting profound impacts among students.

Data not only keep education systems accountable for improvements but also help potential postsecondary students to realize what they are working toward. The Florida Department of Economic Opportunity (DEO) monitors the economic success of those completing workforce development programs, from certificates to specialist degrees, enlightening workers and organizations as to the benefit of specific career paths.⁵⁹ DEO and CareerSource Florida, Inc. collaborate to collect and publish data relevant to the job market on Employ Florida. The data help inform job seekers, employers, 24 local workforce development areas, and 100 career centers statewide as to the opportunities that can provide talented workers to gainful employment outcomes.⁶⁰

In 2021, Florida passed the Reimagining Education and Career Help (REACH) Act to better connect residents with career planning tools, labor market information, and education and training options.⁶¹ REACH Act combines the efforts of the Board of Governors, CareerSource Florida, Inc., FLDOE, DEO, Florida Department of Children and Families, local workforce development boards, and local career centers to provide better resources for Floridians.

Communities need to emphasize local data. As educational stakeholders try to leverage data in a way that aligns the needs of workers and employers, local data should be emphasized to craft career resources that mirror the realities, and fulfills the needs, of specific workforces. For example, while the aviation and aerospace industry has a clear home in Florida, the industry is not found in every county; therefore, to maintain their

57 American School Counselor Association, "Student-to-School-Counselor Ratio 2020-2021."

58 Florida Department of Education, "Accountability," retrieved from <https://www.fldoe.org/accountability/>, accessed on April 8, 2022.

59 Florida Department of Economic Opportunity, "Economic Security Report 2021," March 2022.

60 Employ Florida, "Home," retrieved from <https://www.employflorida.com/vosnet/Default.aspx>, accessed on April 8, 2022.

61 Florida Jobs, "Workforce System Integration," retrieved from <https://floridajobs.org/office-directory/division-of-workforce-services/initiatives/workforce-system-integration>, accessed on April 8, 2022.

talent, some counties may choose to prioritize an industry such as financial and professional services instead. Local data reveal the most relevant workforce development implications for the local job market, make data-predicted outcomes attainable, and endorse employment connections within the community.

Various stakeholders can play a role in utilizing local data. Learning institutions can use data to inform curriculum and evaluate the return on investment of community-centric strategies, which can encourage prospective participants and partners. Employers can use local data to help determine locations or how to retain and develop their employees. Economic development councils have been formed in some counties to help interpret and gather data as well as facilitate connections between learning institutions and employers.

Communities should decide what type of data is most imperative to their needs and how it can be collected. While state data can often be narrowed to local levels, it lacks observations such as the employment choices of high school graduates or the interests of local employers. Learning institutions, local agencies, and nonprofits can all work to fill the gaps.

PK-12 schools partner with businesses to better inform career development curriculum and guidance for PK-12 students. Across Florida, businesses are inviting educators to explore their operations through webinars and externships, so that educators can craft meaningful career development curricula and better explain the real-world implications of learning. The teachers can also arrange for employers to directly interact with students, whether through virtual meetings or field trips to companies. Organizations such as an economic council or chamber of commerce can be leveraged to facilitate these partnerships by engaging the parties, providing online portals to set trips to schools or businesses, and hosting events.⁶²

High schools across Florida are finding ways to connect students to the skills and knowledge needed to plan and pursue specialized careers. Tampa's Robinson High School, for example, established a college and career center to provide students with the necessary information to make a well-thought career choice and plan for their future. The range of information includes testing dates, test preparation information, financial aid opportunities, meetings with college representatives, and general guidance.⁶³ By doing so, the school provided individualized attention to students who likely would not have received it otherwise. Pinellas County Schools developed similar centers, totaling to over 15 centers, with the help of LEAP Tampa Bay.⁶⁴

Recommendation 3. Expect and facilitate learning pathways and systems of support that allow students multiple ways to participate.

Interviews of workers without four-year degrees often cite affordability and responsibilities—ranging from caring for relatives to earning money for the household—as reasons not to enroll within higher education.⁶⁵ If potential students cannot adapt to the structures of postsecondary learning institutions, the institutions must find ways to better facilitate learning. By offering paths of ranging affordability and a variety of learning environments, some postsecondary learning institutions are better equipped to capture more students.

62 Florida TaxWatch thanks Pasco Economic Development Council's WorkforceCONNECT program for discussing these strategies with us.

63 Robinson High School PTA, "The Cube," retrieved from <http://www.robinsonptsa.com/the-cube>, accessed on March 25, 2022.

64 Leap Tampa Bay, "College and Career Centers," retrieved from <https://www.leaptampabay.org/college-career-centers>, accessed on March 25, 2022.

65 Pew Research, "What's behind the growing gap between men and women in college completion," retrieved from <https://www.pewresearch.org/fact-tank/2021/11/08/whats-behind-the-growing-gap-between-men-and-women-in-college-completion/>, access on April 8, 2022.

As learning institutions attempt to serve an array of students with diverse needs, it is important that stakeholders support these endeavors in a way that recognizes high performance may look different for various programs. Within the Florida College System, part-time students compose the majority of learners within every demographic group and minorities compose over half of part-time enrollees, making it an essential pathway to workforce development.⁶⁶ Expanding learning opportunities for students may mean more part-time learners who need longer than traditional timeframes to complete their program or students that need to temporarily stop their education throughout their career path. While keeping postsecondary learning institutions accountable to positive student outcomes is important, stakeholders should be mindful that some programs that witness slow results enable social mobility for a greater number of students.

All high school students should be encouraged to embark on career pathways early as a form of acceleration and accessibility. To help facilitate secondary students' paths to the workforce, Florida encourages early career development by advocating for Advanced Placement (AP) and Dual Enrollment (DE) classes. AP and DE classes have shown a correlation with enrollment in higher education, translate to college credits, and offer rigorous academic courses, aiding readiness for postsecondary trainings and learnings.⁶⁷

If viewed as both an accelerant and a pivotal opportunity for accessibility, encouraging the use of AP and DE classes to all students can boost the educational attainment of different populations. These advantageous classes are mostly utilized by white, female students.⁶⁸ During the 2021-2022 school year, economically disadvantaged students composed only a third of the enrollment in DE classes.⁶⁹ Students who face the greatest hurdles to postsecondary learning should be prepared and encouraged to take these classes because the attained credits will limit the time and money needed to earn a degree.

Florida also creates opportunities for attaining postsecondary certificates within high schools through the Career and Professional Education Act of 2007 (CAPE). CAPE has developed career-oriented academies within high schools, and enrolled students typically display better attendance, grade point averages, and graduation rates.⁷⁰ The availability of certificates is wide-ranging, but high-value certificates intertwined with the job demands of local areas are emphasized. A report from the 2019-2020 school year shows that the Black and Hispanic populations compose a smaller proportion of participating students compared to their share of non-participating students;⁷¹ schools should evaluate their offerings and recommendations for CAPE classes to ensure all students have the chance to reap the benefits.

Postsecondary learning institutions can offer flexibility through online programs. Online programs are especially useful for lifestyles with unpredictable circumstances, such as those caused by military deployment, parenting, and family emergencies. A range of universities, community colleges, and private institutions offer online programs. The University of Florida was ranked as the number one online bachelor's program in the country by U.S. News and World Report.

66 Florida Department of Education, "Fact Book 2022," 2022.

67 Florida College Access Network, "Dual Enrollment: Launching Florida Students on a Postsecondary Pathway," December 2021.

68 Florida Department of Education, "K-12 Education Information Portal," 2022. The data represents the enrollment of each class and not the number of students utilizing the resource.

69 Florida Department of Education, "K-12 Education Information Portal," 2022.

70 U.S. Department of Education, "Examining the Influence of the Florida Career and Professional Education Act of 2007: Changes in Industry Certifications and Educational and Employment Outcomes," August 2017.

71 Florida Department of Education, "Career and Professional Education Act Enrollment and Performance Report," 2021.

Postsecondary students have opportunities to earn a living while they are learning. An effective way of adapting educational paths for active workers is employer-sponsored education. Earning while learning offers workers economic mobility and an enhanced career path, but employers also benefit from the arrangement. If employers endorse employees' training or education—whether through apprenticeships or tuition benefits—they attract employees as well as witness greater retention and satisfaction.⁷²

In 2019, a collaboration among the DEO, CareerSource Florida, and FLDOE launched an outreach campaign called “Apprentice Florida,” to better connect Floridians to paid trainings. Within a year, Florida experienced an increase of 4,100 registered apprentices, working in industries ranging from manufacturing to healthcare. On average, Florida’s apprentices earn a salary of \$50,000 upon completion of their training.⁷³

Programs can seek ways to support the career paths of parents. About a quarter of students in higher education are a parent,⁷⁴ and parents comprise about a third of community college students.⁷⁵ Student parents are more likely to work full time, have lower incomes, and to be short on time, all of which can place them at-risk for reaching graduation.⁷⁶ Previously discussed supports such as earning wages while learning or flexible schedules can help retain parents as well; however, child care while parents are in class continues to pose a challenge. To help meet parents where they are, programs such as Ascend—which has 19 community partners in Florida—take a generational approach, connecting parents to workforce development programs while also supporting the children through childcare programs.⁷⁷

The state of Florida connects residents to short-term education programs for high-demand jobs. In 2021, Florida launched the “Get There Faster: Workforce Innovation and Opportunity Act” (WIOA), to extend accessibility of training and career services to Floridians who may struggle to access paths to career development.⁷⁸ The WIOA makes available career services to military veterans and spouses; training opportunities in information technology to low-income adults and youths; education and work skills training to residents receiving public assistance, recovering from substance use disorders, or finishing involvement with the justice system; and job seeker services to rural residents.⁷⁹ The WIOA also promotes rapid credentialing relevant to in-demand, high-value industries available to all residents.

Recommendation 4. Empower community-based solutions and partnerships.

Every locality is unique, making community-based solutions imperative to effective workforce development. When learning institutions, governments, non-profits, and businesses share experiences and needs, communities are better prepared to determine the different roles stakeholders should take to strengthen the workforce delivery system. Organizations, committees, councils, conventions, and webinars can all be ways to share information, but the state could benefit from easier ways of accessing and sharing ideas.

72 Bright Horizons, “Working Learner Index,” 2019.

73 Florida Department of Education, “Florida’s Annual Apprenticeship and Preapprenticeship Report,” 2020.

74 U.S. Bureau of Labor Statistics, “Balancing college and kids: estimating time allocation differences for college students with and without children,” February 2019.

75 Center for the Education of Women, “Helping Students with Children Graduate: Taking Your College Services to the Next Level,” 2016.

76 Ibid.

77 Ascend, “The 2Gen Approach,” Aspen Institute, retrieved from <https://ascend.aspeninstitute.org/2gen-approach/>, accessed on May 26, 2022.

78 CareerSource Florida, “2020–2021 Annual Report,” 2021.

79 Ibid.

Partnerships can build learning programs that satisfy the needs of workers and the needs of employers.

Lee Health, one of the largest public health systems in the country and a sizable employer for Lee County, struggles with a critical workforce shortage of certified nursing assistants. Lee Health worked with the FutureMakers Coalition to develop a collaborative, community-based solution, enabling the creation of a viable career path for struggling residents.⁸⁰

Through Broward UP (“Unlimited Potential”), Broward College brings free, in-demand courses to Broward communities with high rates of unemployment and low educational attainment.⁸¹ By focusing its offerings on in-demand fields, Broward UP not only better its students’ chances of securing gainful employment but also delivers the local economy the skills it demands.⁸² For every dollar invested, the program reaps a significant return of \$19.27 for students and \$13.13 for the state.⁸³

Communities can build partnerships with learning institutions and businesses to become specialized epicenters of high-value fields. In Osceola County, a partnership among Florida’s colleges, universities, and industries is developing NeoCity, a rising technology district.⁸⁴ NeoCity, specializing in smart sensor, photonics, and nano-technology research and development, is expected to create up to 127,700 jobs⁸⁵ and boast an economic output between \$25.3 billion and \$28.8 billion over the long-term. These forms of collaboration among learning institutions and industry provide communities with a viable economic strategy.

Communities can invest in workforce development. To encourage participation in its postsecondary programs, Osceola County launched “Osceola Prosper,” an initiative that will pay for two years of schooling at Valencia College or Osceola Technical College for local students graduating high school in 2022. To keep the program as accessible as possible, there are no income or academic requirements, and the scholarship applies to both full-time and part-time students. If students want to pursue a bachelor’s degree, Osceola Prosper provides coaches to help identify possible pathways to furthering their education.⁸⁶

Recommendation 5. Maintain and enhance affordability of training and education beyond high school.

Year after year, affordability stands out as a primary concern of potential postsecondary students. Nationwide, two-in-five Americans who never pursued a four-year degree claimed they could not afford the necessary education.⁸⁷ Even those who plan to enroll in learning institutions cite affordability as a concern, which could influence persistence rates. An annual survey by Princeton Review found 80 percent of respondents said that to pay for college, financial aid would be “Extremely or Very (necessary).”⁸⁸

There are several approaches for making training and education more affordable. Learning programs sponsored by employers, whether through apprenticeships or tuition benefits, not only help students balance

80 Florida College Access Network, “FutureMakers Coalition Drives Student Success Through Partnership and Scholarship Innovation,” October 2018.

81 Florida TaxWatch, “An Independent Assessment of the Value of Broward UP,” April 2021.

82 Ibid.

83 Ibid.

84 Orlando Economic Partnership, “NeoCity Executive Summary,” 2017.

85 Florida TaxWatch combined the number of expected jobs: 34,300 direct jobs + 45,300 indirect jobs + 48,100 induced jobs = 127,700.

86 Osceola County, “Osceola Commission Gifts 2022 Seniors with More than \$12 million,” retrieved from <https://www.osceola.org/news/osceola-commission-gifts-2022-seniors-with-more-than-12-million.html>, accessed on April 7, 2022.

87 Pew Research, “What’s behind the growing gap between men and women in college completion?” November 2021.

88 The Princeton Review, “College Hopes & Worries Survey 2022,” 2022.

responsibilities but also forge a less expensive learning path. Career development in secondary school, through CAPE trainings and DE and AP classes, lowers costs by limiting the time and money needed to reach postsecondary outcomes as well as taking advantage of a preset time for learning. Potential students can also benefit from limited costs, financial aid, and scholarships.

Guidance counselors and career-planning resources are vital to the affordability of trainings and higher education. Prospective students must be aware of the financial aid opportunities and inexpensive learning pathways available. For example, over 50 percent of Florida college students qualify for Pell grants—federal money that does not cost the state—however, \$300 million worth of Pell grants is left unclaimed by Floridians due to incomplete applications. With better awareness, Floridians can take advantage of the offered money and translate it to the economic benefits of postsecondary trainings and education. The Florida College Access Network (FCAN) tries to raise awareness with their “FAFSA Challenge” a call for schools to encourage all student to complete their applications.⁸⁹

The state of Florida limits the costs and financial risks of postsecondary training and education to ensure career development remains accessible to residents. Florida maintains a higher education system with relatively low costs to students, aiding the affordability of degree programs. In 2021, tuition at Florida’s two-year colleges and universities was among the lowest in the nation. Comparing current tuition rates to five years ago, Florida’s colleges and universities have experienced an 11 percent drop in the cost of tuition, marking the greatest improvement in affordability among all the states.⁹⁰ While this is a great achievement for Florida, students still struggle with the financial troubles of securing housing, transportation, and basic needs as well as carrying the burden of lost wages.

Not only does Florida keep its tuition low but the state also tries to limit the expenses for those pursuing a higher education. The state guides articulation agreements, allowing high school courses and competency exams to translate to credit within degree programs.⁹¹

Scholarships and vouchers help students pay tuition. The Bright Futures Scholarship has different tiers of funding based upon students’ high school performance. In 2022, legislators passed a bill to expand the accessibility of the scholarship by allowing paid work to serve as an alternative to the program’s requirement of volunteer hours.

The Effective Access to Student Education (EASE) grant provides students with vouchers to attend the Independent Colleges and Universities of Florida (ICUF). These grants are especially important for supporting comparable educational attainment across Florida’s populations because first-generation students and students of color are more likely to graduate from ICUF institutions than public universities. Further, ICUF has three Historically Black Colleges and Universities (HBCUs) and five Hispanic-serving Institutions (HSIs), which can better serve the needs of specific students.⁹²

89 Florida College Access Network, “Top 5 Reasons to Complete the FAFSA,” February 2022.

90 College Board, “Trends in College Pricing and Student Aid,” 2021.

91 Florida Department of Education, “Articulation,” retrieved from <https://www.fldoe.org/policy/articulation/#>, accessed on April 7, 2022.

92 Independent Colleges and Universities of Florida, “ICUF Impact,” retrieved from <https://icuf.org/about-icuf/icuf-impact/>, accessed on May 26, 2022.

The state also tries to limit students' financial risks. Florida Prepaid allows families to buy workforce development over time. If the cost spent on college or a university was less than expected, Florida Prepaid refunds money back to the family. If the cost is higher, Florida Prepaid pays the difference.⁹³

The REACH Act established a “Money-Back Guarantee Program,” which requires postsecondary schools to choose at least three high-demand programs that refund students who cannot find a related job within six months of completing the education requirements. This program encourages students to pursue the programs their region needs the most and incentivizes school districts and colleges to help students reach aspired career outcomes.

The financial needs of residents should continue to carry heavy consideration within the crafting of policy. As Florida continues encouraging workforce development through financial aid and scholarships, lowering credit hour requirements and increasing the eligible years can help the needs of the students who need both aid and working hours to complete a learning program. The state must also be wary as to how tuition assistance and educational paths react with fiscal cliffs; prospective students will not seek improved employment outcomes if it further exacerbates their financial situations.

Secondary schools encourage the completion of financial aid and scholarship applications. Broward County aims to overcome the effects of short-handed guidance staff by training students participating in the college enrollment process to advise their peers. Called Broward Advisors for Continuing Education (BRACE), the program launched in 2019 with 65 BRACE Cadets serving 32 schools. Together, BRACE cadets helped with the completion of 248 college applications, 301 Free Application for Federal Student Aid (FAFSA), 103 Bright Future applications, and 351 scholarship applications.⁹⁴

Local organizations support student finances. Programs like “Earn to Learn FL” rely on matching funds to help students earn the funds to attend college. The program accepts low-income students and coaches personal finance, college readiness, and workforce readiness. The students work jobs that help them earn enough money to invest in their own education and investors provide the rest of the funds needed. This process helps students graduate debt-free and ready to monitor their own finances upon graduation.⁹⁵

Recommendation 6. Encourage the persistence of active learners and the return of “stop-out” students.

Within Florida's working-age population, 19 percent started college without completing their degree. If these students finished the programs they started, Florida would have already reached the SAIL to 60 target, hosting a more specialized workforce than most states. As Florida develops its workforce, student persistence must be closely monitored. Reviewing Florida's lowest performing populations, 17 percent of Hispanic students and 22 percent of Black students stop degree pathways before completing their programs. These “stop-out” students—students who leave their workforce development program and may or may not return—do not experience employment benefits unless they complete their programs. Learning institutions have begun exploring ways of retaining enrolled students and reclaiming students who left programs before completion.

93 Florida Prepaid, “Prepaid Plans,” retrieved from <https://www.myfloridaprepaid.com/prepaid-plans/>, accessed on May 26, 2022.

94 Florida College Access Network, “Leveraging Peer-to-Peer Influence for College-Going Success: Broward County Public Schools Introduces BRACE Cadets,” March 2021.

95 Earn to Learn FL, retrieved from <https://earntolearnfl.org/>, accessed on April 8, 2022.

Learning institutions and training programs can provide guidance and support to help students finish their programs. Of surveyed workers who stopped their educations shy of credits, 24 percent cited they stopped attending their school in part because of uncertainty as to what courses were required⁹⁶ while others leave because they are unaware of resources that would have allowed them to stay. Learning institutions are investing in programs that identify students who may be at risk of stopping their training or education so that they can connect the students to support resources.

“Destination Graduation,” a collaboration between the Central Florida College Access Network, the Heart of Florida United Way (HFUW), and Seminole State College of Florida, is designed to provide onsite, support services to low-income, first-generation, or veteran students. Employing an information and referral specialist, the program connects students to more than 2,000 community and campus resources. The program also established an on-campus case manager who retains students by providing emergency financial assistance to those facing short-term financial pressures.⁹⁷

Learning institutions can provide outreach and supports to help the return of students who never completed their programs. Florida Gulf Coast University (FGCU) and Florida Southwestern State College (FSW) have launched two campaigns—“Return to the Nest” and “Second Look”—to encourage the return of students who stopped-out.⁹⁸ By gathering data regarding students’ reasons for leaving, the schools learned financial support, mental/physical health, and competing responsibilities served as the primary reason for their students’ departure. These campaigns provide targeted financial assistance, improved communications, and coaching to ensure the students could return and reap the benefits of graduation.⁹⁹ As of July 2021, the schools welcomed back more than 800 students (collectively) and nearly 14 percent have already graduated with degrees.¹⁰⁰

Recommendation 7. Design, implement, and advertise training programs that offer multiple outcomes for student success.

Based upon survey data, one in five working-age Floridians began pursuing a degree without reaching completion.¹⁰¹ Pursuing a training or education is an investment, but if students stop out early, students not only lose the return on investment, but they must also overcome the costs of starting a program and foregoing potential hours of work.

Stackable credentials offer multiple on and off-ramps. Learning institutions and training programs have partnered to articulate translations between experiences and credentials that can be used for credits within academic programs. By doing so, these schools are lowering the costs of education, making progress more tangible, and ensuring early exits still leave students better situated for the workforce and for re-entry within credentialing and education systems.

96 The knowledge needed to just begin at a postsecondary institution includes how to take required tests, find the right academic program, apply to institutions, pay fees, receive tuition assistance, enroll in necessary courses, and fulfill graduation requirements.

97 Destination Graduation, retrieved from <https://www.hfuw.org/destinationgraduation/>, April 28, 2022.

98 FutureMakers Coalition, “Southwest Florida Educational and Workforce Outcomes Report 2020-2021,” August 2021. Note, both Florida Gulf Coast University and Florida Southwestern State College are members of the FutureMakers Coalition.

99 FutureMakers Coalition, “Southwest Florida Educational and Workforce Outcomes Report 2020-2021,” August 2021.

100 Ibid.

101 U.S. Census Bureau, American Community Survey (ACS) 1-Year Estimates 2019.

This postsecondary learning framework, which FLDOE has encouraged,¹⁰² is often referred to as “stackable credentials,” and several institutions, such as Miami-Dade College, have been notably successful implementing the approach.

Miami-Dade College outlines the career pathways to illustrate to students the benefits of their education.¹⁰³ To help connect learning with employment, Miami-Dade College’s Accelerated Credentials Training and Skills program works with employers to provide mini-internships, training sessions, and paid experiences that can count among stackable credentials. Not only does this help students work toward a degree path, but it also keeps them gainfully employed and continually developing career readiness throughout their learning journey. This program was nationally recognized by the Lumina Foundation in 2019.¹⁰⁴

Conclusions

As Florida navigates a world forever changed by COVID-19 and technology’s rising influence, stakeholders and policymakers should contemplate the advantages of increasing educational achievement across Florida’s diverse population. Enhanced education and training beyond high school not only helps individuals accumulate wealth and build self-sufficiency but each year, it would also amount to an additional \$53.6 billion in earnings, at least \$58.9 billion to GDP, and \$4.7 billion in tax revenue, benefiting the economic and fiscal standings of Florida.

As Florida aims toward higher rankings within the world economy, educational achievement can be a viable strategy for growth. Exploring the endeavors of Florida helps illuminate what is needed to reinforce the education-to-workforce pipeline. Many of the effective programs are localized, and they provide a replicable framework for utilizing available resources to best satisfy identified needs. As Florida strives to move forward as a strong, competitive player within the global economy, the state can be strengthened by investments in workforce development.

102 National Skills Coalition, “Increasing Opportunities: Building Pathways with Stackable Non-Degree Credentials,” February 2021.

103 Miami Dade College, “Understanding Your Credentials,” retrieved from <https://www.mdc.edu/credentials/>, accessed on April 11, 2022.

104 Lumina Foundation, “Lumina Foundation awards 2019 Education Innovation Prizes,” retrieved from <https://www.luminafoundation.org/news-and-views/lumina-foundation-awards-2019-education-innovation-prizes/>, access on April 11, 2022.

Appendix A

Calculating Aggregate Earnings Across Demographic Groups

To estimate the economic impact and financial boosts due to higher educational attainment, the following analysis calculates the additional earnings that would be realized if the bottom 40 percent of income earners possessed the same educational attainment distribution as the top 60 percent of income earners (see Figure 5). The data used in this analysis include the U.S. Census Bureau's American Community Survey (ACS) 5-Year Estimates, the U.S. Census Bureau's Table B19080—Household Income Quintile Upper Limits, and median annual earnings data from the National Center for Education Statistics (NCES).

Step 1 – Establish benchmark (target distribution) upon which to base the adjustments for each demographic group. Using the U.S. Census Bureau's Table B19080 (Household Income Quintile Upper Limits 2019), Florida TaxWatch identified the following income quintiles:

- Quintile 1: \$1 - \$24,189;
- Quintile 2: \$24,190 - \$44,296;
- Quintile 3: \$44,297 - \$69,656;
- Quintile 4: \$69,657 - \$111,567; and
- Quintile 5: \$111,568 and above.

It should be noted that quintiles 1 and 2 above represent the bottom 40 percent of income earners and quintiles 3 through 5 represent the top 60 percent of income earners.

Step 2 – Convert the percentages in Figure 1 to the number of individuals by race/ethnic group and educational attainment category. The current (observed) distribution of educational attainment by demographic group in Florida is reflected in Table A.

Table A. Pre-Adjustment Distribution of Florida Population (25-64) By Educational Attainment and Race/Ethnicity

Educational Attainment	Asian	White	AIAN/NHPI & Other	Hispanic/Latinx	Black/African American
Less Than High School	29,982	361,515	7,497	527,557	218,181
High School	49,102	1,178,997	14,090	763,611	512,949
Credential or GED	8,033	286,510	3,681	113,867	82,018
Some College	38,317	1,158,968	13,870	516,231	374,418
Associate's Degree	26,728	631,994	7,746	324,647	187,761
Bachelor's Degree	102,957	1,308,805	17,828	557,223	229,316
Graduate Degree	84,333	689,709	7,305	271,319	118,106

Step 3 - To meet the target distribution of educational attainment for each racial/ethnic group, Florida TaxWatch then adjusts the levels to match the target rates of educational attainment (the distribution for the top 60 percent of income earners). The results of this adjustment are reflected in Table B.

Table B. Post-Adjustment Distribution of Florida Population (25-64) By Educational Attainment and Race/Ethnicity

Educational Attainment	Asian	White	AIAN/NHPI & Other	Hispanic/Latinx	Black/African American
Less Than High School	21,337	218,530	4,147	208,276	85,237
High School	34,944	712,685	7,794	301,469	200,395
Credential or GED	7,841	129,741	1,664	71,020	39,796
Some College	58,657	970,531	12,445	531,266	297,691
Associate's Degree	38,630	639,157	8,196	349,873	196,049
Bachelor's Degree	104,959	1,736,621	22,268	950,621	532,674
Graduate Degree	73,084	1,209,232	15,505	661,930	370,908

Step 4 - Calculate the net changes for each demographic group by educational attainment level.

Subtracting the number of individuals in each cell in Table B from the number of individuals in each respective cell in Table A identifies the net changes. It should be noted that, since the Asian possessed a higher educational attainment rate for graduate degrees than the target distribution, Florida TaxWatch sets a lower bound limit of “0” for that specific category. The results of this step are shown in Table C.

Table C. Net Change in Number of Individuals to Reach Target Distribution of Educational Attainment

Educational Attainment	Asian	White	AIAN/NHPI and Other	Hispanic/Latinx	Black/African American
Less Than High School	-8,645	-142,985	-3,350	-319,281	-132,944
High School	-14,158	-466,312	-6,296	-462,142	-312,554
Credential or GED	-192	-156,769	-2,017	-42,847	-42,222
Some College	20,340	-188,437	-1,425	15,035	-76,727
Associate's Degree	11,902	7,163	450	25,226	8,288
Bachelor's Degree	2,002	427,816	4,440	393,398	303,358
Graduate Degree	0*	519,523	8,200	390,611	252,802

Step 5 – Calculate the earnings benefit by multiplying the median annual earnings for each racial/ethnic group and corresponding educational attainment level by the number of individuals for each category. The aggregate earnings benefit across Florida’s entire population and economy are shown in Table D.

Table D. Total Change in Aggregate Earnings After Improved Educational Attainment (Millions \$)

Educational Attainment	Asian	White	AIAN/NHPI & Other	Hispanic/Latinx	Black/African American	Total
Less Than High School	(\$262.17)	(\$4,918.70)	(\$99.50)	(\$9,073.97)	(\$3,473.82)	(\$17,828.16)
High School	(\$419.22)	(\$18,158.20)	(\$222.96)	(\$16,345.98)	(\$9,445.40)	(\$44,591.76)
Credential or GED	(\$5.68)	(\$6,104.60)	(\$71.44)	(\$1,515.50)	(\$1,275.97)	(\$8,973.19)
Some College	\$699.91	(\$7,626.10)	(\$57.32)	\$537.35	(\$2,828.92)	(\$9,275.08)
Associate's Degree	\$471.54	\$322.70	\$18.20	\$993.15	\$300.85	\$2,106.44
Bachelor's Degree	\$121.39	\$25,814.43	\$250.53	\$17,986.18	\$13,605.61	\$57,778.14
Graduate Degree	\$0*	\$36,584.81	\$580.91	\$23,475.73	\$13,704.39	\$74,345.84
Total	\$605.77	\$25,914.34	\$398.42	\$16,056.96	\$10,586.74	\$53,562.23

As shown in Table D, the boost to earnings and the resulting economic benefit is \$53.6 billion annually.

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As an independent, nonpartisan, nonprofit taxpayer research institute and government watchdog, it is the mission of Florida TaxWatch to provide the citizens of Florida and public officials with high quality, independent research and analysis of issues related to state and local government taxation, expenditures, policies, and programs. Florida TaxWatch works to improve the productivity and accountability of Florida government. Its research recommends productivity enhancements and explains the statewide impact of fiscal and economic policies and practices on citizens and businesses.

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