THE JOB SKILLS GAP IN ALABAMA

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Disclaimer

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Acronyms

ACCS: Alabama Community College System

CTE: Career Technical Education

Executive Summary

Introduction and Problem Statement

Alabama is experiencing a job skills gap that threatens the economic stability of the state. In 2015, 59% of the jobs in Alabama require a post-secondary technical education. However, only 47% of the Alabama population has the necessary skills to fill these jobs (National Skills Coalition, 2015). According to a report by the National Skills Coalition (NSC), in conjunction with the Federal Reserve Banks of Atlanta and St. Louis, the skills gap negatively impacts business owners because they cannot find the labor to fill these positions, it hurts Alabama because it puts the state at a disadvantage when it comes to attracting new businesses into the state, and the skills gap hurts low-income earners who cannot leap into a middle-skilled job (National Skills Coalition, 2018).

So far, Alabama has attacked the skills gap issue within the state in several ways, executive action, followed by legislation, collaboration between stakeholders, and efforts by education stakeholders throughout the state. In January of 2013, then Governor Robert Bentley issued an executive order that established the College and Career Readiness Task Force, which consisted of education leaders, business leaders, and government, in an effort to come up with recommendations for the Governor on how to close the skills gap. Following the creation of the task force was the formation of a statewide workforce council, created via the passage of senate bill 217. Senate bill 217 aimed at aiding the support of the "state workforce council to promote industry-focused coordination between its pre-K-12 system, higher education and businesses," (National Skills Coalition, 2014). Also, in 2014, the Alabama legislature passed Senate Bill 184, which required the state board of education to dedicate $200,000 of seed funding for local regional areas. The goal was to determine the skills needed in these local areas, then develop educational pathways for the skills, and finally align funding with identified workforce needs (Education budget, appropriations for the support, maintenance, and development of public education, 2014). From a higher education standpoint, the Alabama Community College System (ACCS) adopted the 1:2:7 21st century job ratio as a way to bring awareness to the job training of Alabamian residents. For every 10 jobs, 1 will require a graduate degree, 2 will require a bachelor's degree, and 7 will require an associate degree or a job certification. Although Alabama is taking the steps to deal with the skills gap, this is not an issue that will disappear on its own anytime soon. The NSC believes that until 2024, roughly 55 percent of job openings will require a technical education. *A latent opportunity exists for the state of Alabama to reduce its skills gap, strengthening the Alabama economy for years to come.*

Background

Alabama Quick Facts

As of July 2018, it is estimated by the US Census Bureau that approximately 4.9 million people live in the southeast state of Alabama, an increase of about 100,000 citizens since the last census in 2010. Whites and African Americans make up a vast majority of the state population, 69.2% and 26.8% respectively. About 85 percent of Alabamians age 25 and older hold at least a high school diploma while about 25 percent hold a bachelor's degree or higher. The median income of Alabama in 2017 dollars is $46,472 and the labor force participation rate (age 16 and above) is 57.3 percent.

Current State of the Skills Gap

Although the skills gap discussion started gaining traction not too long ago, many critical events over the past several decades aided in the creation of the skills gap. In the 1980s, many states began focusing more on core academic areas. There became more of an emphasis on obtaining a 4 year degree rather than a technical education. Then, the 2007-2008 recession compounded the skills gap issue. Lastly, baby boomers who traditionally held these jobs began retiring. Lastly, in today's society, not too many people know about vocational education/technical education and how it can lead to a decent paying job.

Focusing on Core Academic Areas

In the 1980s, many states started focusing more on core academic areas. As a result, a lot of attention and resources were diverted away from vocational education/technical education. Professor Brian Jacobs of Michigan writes that "states increased the number of courses required for high school graduation, and began mandating students take additional courses in core academic areas such as math, science, social studies and foreign language," (Jacobs, 2017). Following the implementation of this new curriculum by states, many students focused more on these core courses and avoided taking CTE courses. By 2000, high school credits earned in CTE classes declined sharply. According to figure 1, the National Center for Education Statistics estimates that the average number of credits earned in CTE declined from 4.2 credits to 3.6 between 1990 and

2009 Meanwhile, credits earned in other areas went up in the same time span. In addition to the added attention placed on core courses, CTE funding has been steadily declining since 2002.

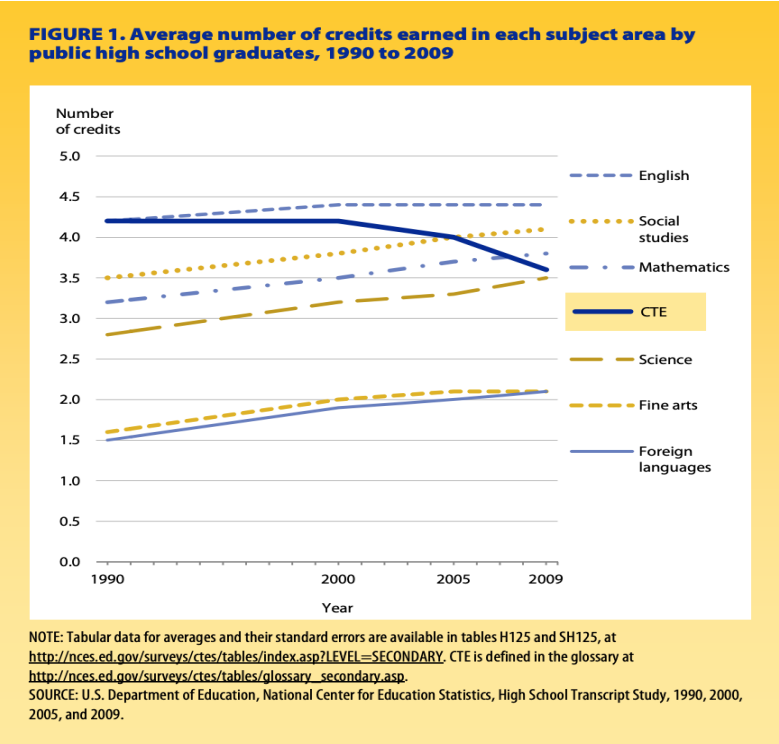


Figure 1: US Department of Education: National Center for Education Statistics

2007-2008 Recession's Impact on Education

The 2007-2008 recession impacted Alabama in a serious way. In 2008, Alabama's funding for education was at a peak of $6.7 billion dollars. However, education funding collapsed by $1 billion dollars to its lowest point following the great recession. Revenue used for education funding primarily come from income taxes and sales taxes (Crain, 2018), two sources of revenue that are directly impacted by recessions (layoffs lead to lower income tax revenues and layoffs and pay cuts lead to less disposable income, and thus less demand for goods in the market). However, Alabama's education budget has since rebounded. The state legislature passed a $6.63 billion education budget for FY 2019, the largest budget since great recession. Community colleges, a major technical education provider, received an $18 million dollar increase in funding from the previous year. In addition, a community college scholarship, geared towards the automotive workforce training, was created for eligible high school students and it part of a larger statewide push for automotive education (Crain, 2018). Lastly, financial aid for higher education students increased, a positive for students seeking a technical education in Alabama community colleges.

Retiring Baby Boomers

Baby boomers, defined as individuals born between 1946 and 1964, are currently retiring from the workforce. According to Forestry Works, it is estimated that 77% of skilled baby boomers will leave the labor force by 2030 (Forestry Works). This will directly impact the skills gap if baby boomers are retiring and not enough individuals are coming into the workforce to replace baby boomers.

Definition of Vocational Education, Career Technical Education, and Apprenticeships

If Alabama is to address its skills gap that threatens the Alabama economy, technical education will be the primary source of gaining the skills needed to obtain these jobs. Individuals who seek and/or have jobs in fields requiring a technical education mainly come from three training backgrounds. Those are vocational education, career technical education, or apprenticeships/Job Training. Vocational education and career technical education are similar in many ways. They both teach skill sets for specific jobs. However, based on the combination of existing literature, vocational education and career technical education differ in the range of topics taught, when they are taught, and how the skills are taught to students.

Vocational education teaches more general skills such as word processing, home economics, as well as trade skills. These are taught primarily on the secondary school level, either in general high schools, specific vocational high schools, or vocational programs that students attend outside of high school, part time, to receive credit. (National Center for Education Statistics). Learning a trade within vocational education is primarily done with a hands-on approach (U.S. Department of Education) rather than students sitting in a class and learning the processes of their trade, they actually get to work with the materials. The general aim for vocational education is to prepare high school students for employment post-high school.

The modern foundation for vocational education can be traced back to Frank Parsons. Frank Parsons, a lawyer and engineer in the early 20th century, recognized the lack of technical skills being taught in school, thus inadequately preparing the students for the workforce beyond high school. Parsons furthered vocational education through vocational guidance. Vocational guidance is essentially counselors helping individuals, specifically the youth, on determining what

career paths they should take. Parsons stressed three key principles as part of vocational guidance. First, there needs to be a clear understanding of the individual's abilities, interests, and limitations. Second, it is essential that knowledge of the requirements and conditions of different kinds of employment be made available. Lastly, and most importantly, the ability to match the characteristics of an individual with characteristics of professions available constitutes a successful guidance. (Gothard B, 2001). Parsons, founder of the Vocations Bureau in Boston and an activist, was critical of the public education system in Boston during the first decade of the 1900s. He continuously pushed for education reform. Parson was concerned that children were not getting training in technical skills prevalent at the time. Teachers utilized too much book-based instruction rather than teaching technical skills. Parsons believed that education reform should incorporate vocational guidance. Subsequently, vocational guidance laid the groundwork for vocational education in Boston's public schools. Once counselors in schools began understanding the capabilities of students, curriculums changed to incorporate more technical training to prepare students for the technical skills needed to carry out many of the jobs in the workforce.

Unlike vocational education, career technical education (CTE) teaches with a goal of orienting individuals with a much more specific skill set geared towards a specific occupation. CTE varies widely in where it is taught and how it is taught ranging from disciplines within engineering schools in Universities or taught in post-secondary institutions such as trade schools. Unlike vocational education, CTE requires deep foundational knowledge of the science and the processes at play when it comes to a specific trade (U.S. Department of Education). Catherine Gerwetz of Education Week adds that "Because career-tech-ed classes of all kinds are increasingly seen as roads to additional study after high school, they are meant to be more academically rigorous than those of a previous generation," (Gerwetz, 2018), a key indicator that differentiates vocational education from CTE.

Apprenticeships are the third stream of individuals who go on to fill jobs in technical fields. The Washington State Department of Labors and Industries best describes an apprenticeship as "a combination of on-the-job training (OJT) and related classroom instruction under the supervision of a journey-level craft person or trade professional in which workers learn the practical and theoretical aspects of a highly skilled occupation." The U.S. Department of Labor lays out three advantages of entering an apprenticeship program. First, individuals can earn money from the first day of the apprenticeship. Second, individuals gain knowledge with "structured learning and on-

the-job-training" and three, individuals strengthen their resumes with credentials that are recognized all throughout the industry. The form of teaching in apprenticeships have been around for centuries, going all the way back to the Greeks. In the 17th century, indentured servants would exchange their time for cash (United States Department of Labor, Bureau of Apprenticeship). Apprenticeships are nothing new.

Technical Education Pipeline: The Different Forms and Entry Points for TechEd in Alabama

The conceptions of technical education above is operationalized at three different but yet intertwining levels within Alabama, K-12 education, post-secondary, and workforce development. The K-12 level includes public schools, technical education centers, and outside organizations that provide support to students seeking a technical education. The post-secondary education level includes Alabama's community college system. Finally, workforce development initiatives focus on how to properly re-train individuals for the jobs that require technical education background.

Technical Education at the K-12 Level

In Alabama, many school districts, introduce education to students as early as middle school. technical education is introduced as early as middle school. At the high school level, technical education programs are delivered to Alabamian students through its high schools as well as 59 technical centers. (Association for Career and Technical Education, 2018). The majority of the funding for technical education at the K-12 level comes from the Carl Perkins Act, a federal government legislation that provides funding to states to run their technical education programs on the secondary and post-secondary levels. In Fiscal Year 2018, Alabama received approximately $20.2 million dollars in federal funding for technical education programs in the state. 70% of those total funds, approximately $14.1 dollars, goes towards secondary technical education programs. These high schools and technical centers served 162,229 high school students in the 2015-2016 school year (Association for Career and Technical Education, 2018). That same year 92 percent of Alabama high school technical education students graduated. (Association for Career and Technical Education, 2018).

In addition to traditional public schools and technical education centers for secondary school students, numerous organizations in Alabama provide support to students seeking a technical education. Such programs include the JAG (Jobs for Alabama's Graduates), which aims to help at-risk high school students by providing work-based learning so that these students can obtain jobs or perhaps gain entry to a post-secondary institution (Alabama Department of Education).

Alabama's model for delivering technical education to K-12 students, other Alabamians in the state, is based on the National Career Clusters Model that Alabama adopted several years ago. This cluster model organizes different technical education fields into 16 *clusters* which are:

16 Career Clusters	Articulation Agreement?
● Agriculture, Food & Natural Resources	Yes
● Architecture & Construction Career Cluster	Yes
● Arts, A/V Technology & Communications	Yes
● Business Management & Administration	Yes
● Education & Training	Yes
● Finance	No
● Government and Public Administration	No
● Health Science	No
● Hospitality & Tourism	No
● Human Services	Yes
● Information Technology	Yes
● Law, Public Safety, Corrections & Securities	No
● Manufacturing	Yes
● Marketing	No
● Science, Technology, Engineering, & Mathematics	Yes
● Transportation, Distribution & Logistics	Yes

Figure 2: Career Clusters and Articulation Agreements for specific clusters in Alabama

Certain clusters in Alabama have statewide articulation agreements. The clusters highlighted in blue are clusters that the state of Alabama has statewide articulation agreements with. Essentially, students who take courses in high school in these career clusters are eligible to receive college credit for those courses, which is awarded by the Alabama Department of Education. The objective of the statewide articulation agreement is to ease the transition of students from secondary technical education to post-secondary technical education studies (careertech.org). Furthermore, the statewide articulation agreement allows Alabama to creatively use funds from the *Every Student Succeeds Act* (ESSA). The ESSA emphasizes state and local autonomy in how it goes about delivering K-12 education, which provides an opening for funding for technical education

within schools (Careertech.org). Federal funds can be used to support various dual-enrollment programs in Alabama (College in High School Alliance, 2018), which aligns perfectly with Alabama's statewide articulation agreements.

Technical Education at the Post-Secondary Level

In the 2015-2016 school year, Alabama delivered a technical education to roughly 82,000 post-secondary students. The Alabama Community College System (ACCS) is the primary source of technical education at the post-secondary level in Alabama, with over 54,000 students enrolled in over 152 technical education programs and about 4,000 individual courses. Credentials earned vary from short-term and long-term certification in a technical field to an associate degree.

The ACCS finds itself connected to technical education in many other areas outside of delivering technical education to students enrolled in the ACCS. As alluded to before, the ACCS works closely with K-12 schools in the state on technical education initiatives. The ACCS also works works with K-12 schools to expand access to high school technical education courses that can articulate into college credit. The ACCS also works with businesses in the state to align its teaching with the Accelerate Alabama Initiative, an initiative that provides direction on economic development in the state of Alabama for the next 3 to 5 years (Made in Alabama, 2016). The initiative provides direction by focusing on 7 targeted business sectors, Aerospace and Aviation, Agricultural Products and Food Production, Automotive, Bioscience, Chemicals, Forestry Products, and Metal and Advanced Materials. Working with businesses and industry in the state helps the ACCS better align itself with the Accelerate Alabama initiative to help create a better, more targeted, and more robust workforce development program.

Along with the Accelerate Alabama Initiative, a main driver of ACCS' direction in delivering technical education is the adoption of the 21st Century Workforce Initiative. The 21st Century Workforce Initiative emphasizes the 1:2:7 ratio, meaning 1 of 10 jobs will require a graduate degree, 2 of 10 jobs will require bachelor degrees, and the remaining 7 will require an associate degree or a certification for an industry (ACCS, 2016). The 21st Century Workforce Initiative helped the ACCS determine needs to deliver technical education that best aligns with this initiative.

Workforce Development

According to Made in Alabama, the Alabama Department of Commerce's Workforce Development Division (WDD) is the spear of workforce development in the state. The WDD works with Commerce Workforce Programs, K-12 education, and the ACCS. The WDD is assigned the task of aligning various programs it oversees. These programs include the Federal WIOA (Workforce, Innovation, and Opportunity Act), Regional Workforce Councils, and the AIDT, Alabama's workforce training agency.

According to the Council of State Governments, the WIOA "provides for comprehensive realignment of the nation's workforce development programs. The federal government provides significant funding to states for workforce system programs covered by WIOA...WIOA requires that workforce training and employment programs be coordinated to ensure that the programs work in tandem, providing consistent services to job seekers and employers. WIOA requires states to coordinate six core programs" (Council of State Governments, 2017). The 6 core programs are:

- **The Adult Services Programs**: Providing individual career and training services to job seekers aged 18 or older, primarily low-income individuals or recipients of public assistance.
- **The Dislocated Workers Program**: Provides job training to workers who have been laid off or are facing an impending layoff.
- **Youth Services Program**: Aimed at helping eligible youth who are out of school, age 14-24, who face barriers to education, training.
- **The Wagner-Peyser Program**: a nationwide labor exchange program that provides services to both job seekers and employers free of charge.
- **The Adult Education and Literacy Programs**: help adults learn basic skills— including reading, writing, math, English language proficiency and problem solving—needed to be productive workers.
- **The Rehabilitation Services Program**: assist individuals with physical or mental disabilities to obtain employment and live more independently through provision of counseling, medical and psychological services, and job training.

The federal funding provided to Alabama for these core programs in FY 2016 totaled roughly $123 million. WIOA also requires 11 partner programs that states work with to educate/re-educate the workforce.

Regional Workforce Councils (RWC), created by the Alabama state legislature in 2015, is a business driven and business led organization that "maintains a regional strategic plan to support the Accelerate Alabama economic development plan, establishes a feedback loop for critical WFD

information to the Alabama Workforce Council, and monitors Business & Industry (B&I) satisfaction with Federal & State funded projects, and are the change agent if not satisfied" (AIDT). RWCs collaborate with businesses in their regions to determine what are the employment needs of business and industries in these regions. RWCs also collaborate with K-12 schools, local governments, non-profits, career centers, and other entities to the determine the labor needs of businesses. The collaboration between RWCs and businesses lead to regional strategic plans that align with the workforce development systems within the state. There are 7 regional workforce councils and each county must be represented in the council.

The AIDT, Alabama's workforce training agency, provides workforce recruitment and training for businesses in the state. It consistently ranks in the top 5 for state workforce training programs within the United States and garnered international certification for its quality management system. Training is provided at no cost to the trainees or employers. AIDT's workforce management system focuses on "recruitment, assessment and training of potential employees; development and production of job-related training materials; provision of training facilities; and, delivery of job-specific services for pre-employment and on-the-job training" (MadeinAlabama). Other AIDT services include Pre-Employment (Training Development, Videography, Media and Project Support), Post-Employment/On-the-Job Training Support, Maintenance Assessments, Safety Assistance and Training, Leadership Development, Alabama Work Release and Prison Reentry, the Robotics Technology Park the Forest Products Development Center, the Maritime Training Center, and EMPACT (Entertainment Media Production and Crew Training).

Leaks in the Pipeline

Poverty is a vital leak in the technical education pipeline in Alabama. According to AlabamaPossible, a non-profit within the state, Alabama is the 6th poorest state in U.S (AlabamaPossible, 2018) with a poverty rate of 17.2%. Poverty breeds and/or already exacerbates other problems that disallow individuals from entering school or entering the workforce. The National Skills Coalition points out several ramifications of poverty. First, individuals who live in poverty tend to have lower educational attainment. Second, transportation poses as a critical barrier to closing the job skills gap. Third, childcare becomes nearly impossible for impoverished Alabamians to obtain.

Access to a Quality Education

Individuals in impoverished neighborhoods tend to have lower levels of educational attainment. AlabamaPossible reports that the poverty rate for a someone age 25 with less than a high school degree attained is 30.9%. However, as educational attainment rises, the poverty rate falls. Individuals with some college or an associate degree, the demographic that best resembles individuals who would obtain middle-skill jobs with a technical background, have a poverty rate of about 12.2 percent, on par with the national poverty rate of 12.3 percent (U.S. Census Bureau, 2018).

Poverty affects access to quality educational for many different demographics in Alabama. One impact is K-12 funding formulas for school districts. According to EdBuild, Alabama uses a resource-based funding formula to determine how much money school districts receive. The Alabama report states that "It [Alabama] determines the cost of delivering education in a district based on the cost of the resources, such as staff salaries and course materials, required to do so," (EdBuild, 2018). The state and local districts collectively share the responsibility of funding for school districts. The local district's contribution is based on the property value within the districts. Districts are expected to contribute $10 towards education for every $1000 dollars of property value (EdBuild, 2018). Looking at this formula, one can see the funding discrepancy. Impoverished neighborhoods tend to have lower property values. Hence, the district makes a lower contribution to the district schools. Furthermore, Alabama does not provide more funding to districts because they serve a higher concentration of impoverished students (EdBuild, 2018). Thus, it appears that school districts with a high concentration of impoverished students tend to receive less money. In addition, the lack of funding for schools in impoverished neighborhoods can be characterized as institutionalized discrimination against young African Americans, since there is a high likelihood of African Americans living in impoverished neighborhoods to begin with (National Skills Coalition, 2018).

Transportation

The ability to attain transport to work prevents many Alabamians from obtaining a technical education and/or going to work. Alabamians experience high costs on transportation in a multitude of ways. First, Alabama has a deteriorating bridges and tunnels infrastructure. One-third of Alabama's roads are in poor or mediocre condition and 7% of Alabama's bridges are

structurally deficient (TRIP, 2019). Numerous costs come about from deteriorating infrastructure such as higher costs for car repairs and the lost time sitting in traffic. Other problems arise such as higher potential for accidents, which contributes to more congestion.

Public transportation poses a significant barrier for individuals trying to get to work. Alabama provides no funding for public transportation within the state (Wakeley, 2019). Because Alabama does not provide funding for public transportation, the federal government does not match any contribution the state makes towards transportation (Wakeley, 2019). Fallout from limited lack of transportation funding includes limited numbers of buses running, limited bus routes, reduced operations times, and early termination of services on a daily basis. Scarce maintenance of these transportation instruments further compounds the issue. The Rural Health Information Hub estimates that approximately 1.15 million people live in rural areas in Alabama. However, service for these individuals to their destinations are available only from 9am to 5pm on weekdays and these trips have to be scheduled weeks in advance (Wakeley, 2019).

The Alabama state legislature did attempt to remedy this issue with the Alabama Public Transportation Trust Fund, which would give Alabama a way to invest in public transportation and take in federal money. If Alabama wants to make capital investments in buses and vans, the federal government can match every dollar put forward by Alabama with 4 dollars. All other investments, the federal government can provide double the amount Alabama can (Wakeley, 2019). Although this legislation could significantly help Alabama's public transportation system, the bill has stalled in the legislature.

Child Care

Access to childcare is a major barrier that impoverished Alabamians face when attempting to work. For example, Brandon Goldstein and Conor Boyle contend that rural areas have less options for child care and early education because there is a lack of Head Start providers and a small supply of licensed child care centers. In addition, access to transportation plays a role in whether or not a parent can drop their child off at a child care center (Boyle and Goldstein, 2018).

According to the Economic Policy Institute, Alabamian parents have to pay on average, $4900 per year in childcare and $5600 per year for infants (Boyle and Goldstein, 2018). Many parents are priced out because these childcare costs are 70% of the state's average rent cost and 35% on the income for a family consisting of one income earner making minimum wage.

Although childcare is a tough issue for many Alabamians to deal with on a daily basis, the state acted to make the situation better. Alabama has a childcare subsidy program that provides subsidies to low income families so that these families may have access to childcare. The Child Care Development Block Grant is the primary source of funding for these subsidies. Alabama also has head start and early head start programs that provide childhood education to young children of low-income backgrounds (Boyle and Goldstein, 2018).

Analyzing Alabama's technical education pipeline provides insight into the strengths and weaknesses of technical education within the state. Alabama is focused on technical education being a big part of the development of its workforce of the future. However, given the leaks in the pipeline, there are some serious issues that need to be considered like access to education for impoverished children in Alabama, transportation needs for individuals commuting to a community college or going to work after they obtained a job, and childcare needs for individuals who want to obtain a technical education or go to work.

Alternatives Policy Solutions

Alternative 1: Status Quo

At this particular moment in time, Alabama is attacking its job skills gap in a variety of ways. Alabama has a robust education pipeline, which allows for multiple entry points into the technical education pipeline for prospective students via workforce development, the ACCS, and its K-12 schools.

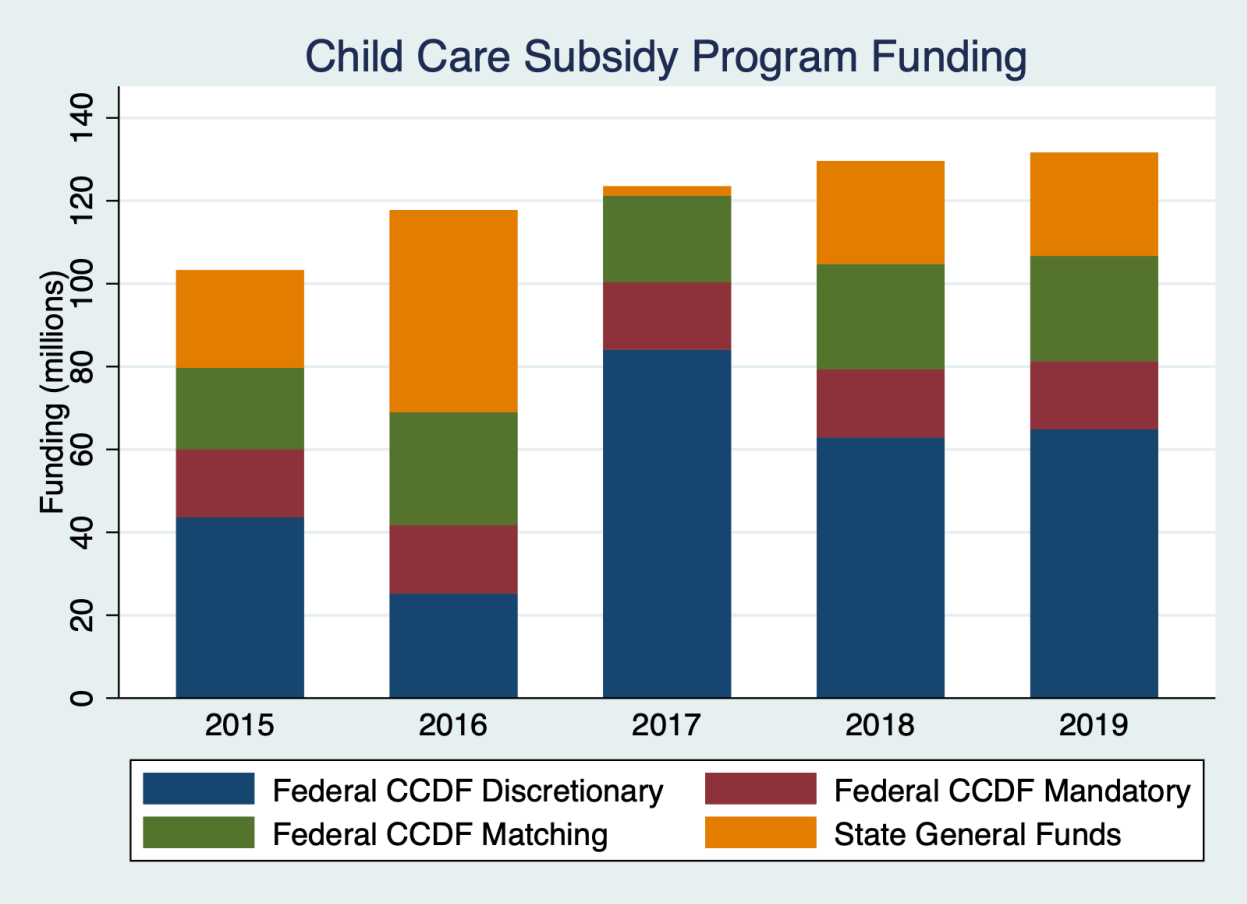
Based on the research, Alabama has shown its commitment to increasing technical education within the state. It has a robust workforce development program that collaborates with various organizations to help deliver technical education in Alabama. In addition, these workforce development programs tackle workforce development for a multitude of different populations within the state such as at-risk youth to displaced workers. Thus, Alabama's workforce development efforts provide a variety of entry points into the technical education pipeline for a lot of Alabamians.

The ACCS is committed to delivering technical education to students. Statewide articulation agreements are an affirmation of that, speeding up the time it takes for a student to earn their certification and take on employment. The ACCS also works with a variety of businesses to determine the skills needs of these businesses. The ACCS is an entry point into the technical education pipeline for primarily students in Alabama K-12 schools who seek a technical education.

The K-12 school system is the first entry point into the technical education pipeline. As mentioned before, Alabama introduces technical education to students as early as middle school. Many Alabama high school students go on to take technical education courses that turn into college credit. Alabama's education budget is at its highest levels since 2008. This allows for the expansion of technical education opportunities to students throughout public schools. One potential issue with K-12 serving as the first entry point to technical education is the notion that students potentially drop out of school, thus removing students from the technical education pipeline. However, Alabama's efforts are so robust that there are programs designed to help that specific population, and even if they do dropout, there are programs available to catch drop out students on the back-end with different workforce development programs.

As for addressing the various leaks in the pipeline, Alabama, in 2013, passed the Alabama Accountability Act (AAA), which is designed to provide scholarships drawn from donations (to be returned as tax credits), from Alabama citizens for students attending failing schools.

During the 2016-2017 school year, 4,076 students, from kindergarten to 12th grade, received scholarships to attend schools that weren't failing. Of these students, 65% of students were Black/African American and 10% were Hispanic. 32% of scholarship recipients were zoned for schools that were failing (Bartha, Steele, Quenneville, 2018). Some worry about the effectiveness of the program, claiming that the AAA is helping a lot of students in zones with non-failing schools. One main driver of why this particular demographic is not receiving enough scholarship is because "Simply put, families would have to drive too far to reach a qualifying school," (Johnson, 2018). Given that Alabama's transportation bill stalled in the legislature, easing the transportation worries for parents who would like to send their children to a better school outside their zone is unlikely to come in the near future. From a childcare standpoint, childcare subsidies have been on the rise for years, allowing more parents to pay for childcare.



However, transportation is still a major issue, particularly for parents who live in rural areas.

Alternative 2: Expansion of Afterschool Programs and Incorporation of Technical Education into Afterschool Programs

Incorporating robust after-school programs will introduce children to technical education at an earlier age. Finding space for children in afterschool programs in Alabama is a serious issue. Currently, there are approximately 275,000 K-12 students awaiting an available afterschool program in the state of Alabama (Afterschool Alliance, 2018). At the moment, roughly 105,000 students are enrolled in an afterschool program in the state. Of the 105,000 students, 18,600 students, 17.7 percent, attend 21st century community learning centers. One child yields as cost of $1000 when it comes to funding for 21st century community learning centers. Alabama has a unique opportunity to solve two issues: eliminate the backlog of students waiting for entry into an afterschool program and provide afterschool programs geared towards technical education, integrating more K-12 students into the technical education pipeline and further closing the skills gap down the road.

21st century community learning centers are uniquely designed to help children in impoverished school districts. These programs help to decrease school day absences and improve school day attendance (Afterschool Alliance, 2017). Afterschool programs like the 21st century community learning centers keep impoverished children in the classroom. It also keeps children occupied between the time school is out and when parents are done with work.

Adjusting the Method of Funding for Alabama School Districts from Resource Based to a Method More Specific for School Districts

Alternative 3: Expanding the ACCESS Program to Incorporate a Technical Education Curriculum at the K-12 Level

ACCESS (Alabama Connecting Classrooms, Educators, & Students Statewide) is a blend of teaching and video conferencing to deliver education to K-12 students throughout the state. The program is designed for multiple purposes, such as giving access to particular courses that are not

offered in schools, or providing courses for students in underserved districts (Alabama Policy Institute, 2012). These virtual learning programs are also meant to provide an education for students who have transportation concerns. According to the Alabama Policy Institute, every school district utilized ACCESS (Alabama Policy Institute, 2012). Most importantly, rural districts had a high usage rate of ACCESS courses, with 1 course taken for every 5.3 students (Alabama Policy Institute, 2012).

Incorporating a technical education curriculum would not be hard to do considering several points. First, the infrastructure is already in place. As mentioned earlier, every Alabama school district utilizes the ACCESS program. The main challenge would be 1. developing curriculum to meet individual technical education career clusters and 2. hiring or reallocating teachers to teach these courses.

Criteria

The following criteria will serve as evaluative measures to assess the projected outcomes of each proposed policy option. The four evaluative criteria are political feasibility, financial feasibility, effectiveness, and robustness. The scale for measuring how well an alternative solution meets the criteria are **low**, **medium**, and **high**.

Criterion 1: Political Feasibility

This criterion will assess the political and financial feasibility of alternative solutions put forth. Political feasibility will be measured by examining how receptive political actors and stakeholders within the state are to the proposed policy alternatives. Political feasibility matters because the receptiveness of political actors and stakeholders to the policy alternative can determine whether the policy alternative is adopted by policy makers.

Criterion 2: Financial Feasibility

This criterion will assess the financial feasibility of the alternative solutions put forth. Financial feasibility will measure whether or not stakeholders are in a position to obtain the funds to support the policy alternative. If the funds to support these policy alternatives are inaccessible, the likelihood of the policy alternative succeeding decreases.

Criterion 3: Effectiveness

This criterion will analyze the effectiveness of proposed policy alternatives. Effectiveness attempts to measure how well the proposed policy solution how policy makers are able to incorporate people into the technical education pipeline. It is important that the proposed solution incorporate as many people as possible into the technical education pipeline to increase the potential labor supply in the future, which will help close the job skills gap Alabama is currently facing.

Evaluation of Alternative Options

Alternative 1: Status Quo

The status quo has a **moderate** level of political feasibility. These policies, enacted and renewed by political actors, are already in place. Although political actors and stakeholders are constantly adjusting policies, there is no inclination from political actors and other stakeholders that the current plan of action is bad.

The status quo presents a **high** level of financial feasibility. The federal government provides funds for various workforce develop programs that Alabama utilizes. Also, Alabama has the highest education budget in a decade. Community colleges, the primary delivery system for technical education saw in increase in funding during the last fiscal year. The money needed to execute existing programs are already available.

If policy makers pursue the status quo as a policy option, the status quo will have a **low** level of effectiveness in terms of incorporating people into the technical education pipeline. The status quo does not address poverty and the three barriers derived from poverty that prevents people from entering the technical education pipeline, access to a quality education, transportation, and child care.

Alternative 2: Expansion of Afterschool Technical Education Programs in Alabama Public Schools

The expansions of afterschool technical education programs in Alabama Public Schools has a **moderate** level of political feasibility. According to Afterschool Alliance, 83 percent of parents support public funding for afterschool programs (Afterschool Alliance, 2018). In addition, nearly 275,000 children are awaiting placement in an Afterschool program indicating a high demand for afterschool programs in the state (Afterschool, Alliance). However, policy makers in Alabama seem reluctant to increase funding for afterschool programs. The 50 State Afterschool Network reports that the “Community Education” line item within the state budget, the line-item

most responsible for afterschool program funding within the state (50 State Afterschool Network), has remained steady at about $3.5 million (Ivey, 2018). Although there is high demand for afterschool programs, policy makers have not made a commitment to increase funding for afterschool programs to meet that demand.

This alternative policy has **low** financial feasibility. The 21st Century Community Learning Centers are the only federally funded afterschool programs (Afterschool Alliance, 2018). In addition, within President Trump's FY 2020 budget is the proposal to eliminate the 21st Century Community Learning Centers. The vast majority of the burden to provide afterschool programs is on the state. If we were to use the funding model for 21st Century Community Learning Centers of $1,000 per child (Afterschool Alliance, 2018), providing afterschool programs for all the children either awaiting afterschool programs or alone and unsupervised after school would cost nearly $375 million dollars to the state of Alabama, an amount of money that Alabama may not be able to come up with on its own, or it may have to shift from other areas within the budget.

The expansion of afterschool programs would be **highly** effective. As mentioned before, 275,000 children are currently on the waitlist for afterschool programs within the state of Alabama. Also, approximately 150,000 children are either alone or unsupervised after school (Afterschool Alliance, 2018). Expanding afterschool programs to these children would provide an opportunity to move many children into the technical education pipeline. Based on Alabama high school enrollment data from AdvanceCTE, the high school CTE concentrators make up roughly 42% of the high school population. If high school students continue studying technical education at that rate, of the 375,000 children not in an afterschool program, approximately 158,000 children will be on incorporated into the technical education pipeline.

Alternative 3: Expanding the ACCESS Program to Incorporate a Technical Education Curriculum at the K-12 Level

Expanding the ACCESS program to incorporate technical education curriculum at the K-12 level has a **high** level of political feasibility. Political actors within the state of Alabama are

already receptive to the idea of virtual online learning. In addition, the infrastructure for this program is already in place and it makes education to rural students more accessible.

The expanding the ACCESS program has a **low** feasibility. The average student ratio for K-12 classes in Alabama is 18/1 and the average total employee package of a teacher is $45,627 (Crain, 2017). Approximately 35.5% of enrolled Alabama students live in rural areas for a total of 260,458 students. The amount of teachers needed to deliver ACCESS technical education to these students could go as high as $2 billion dollars, approximately a one-third of Alabama's education budget and an amount of money that the state does not have readily available.

Expanding the ACCESS program would be **moderately** effective. The ACCESS program has the opportunity to deliver technical education to 260,000 students within the state in rural areas. In addition, it would alleviate the need for students interested in a technical education to travel to a specific location to take technical education courses, a task that may prove very difficult for many rural students.

	Status Quo	Expansion of Afterschool Technical Education Programs in Alabama Public Schools	Expanding the ACCESS Program to Incorporate a Technical Education Curriculum at the K-12 Level
Political	Moderate	Moderate	High
Financial	High	Low	Low
Effectiveness	Low	High	Moderate

Policy Recommendation

Given the structure of the technical education pipeline, and data available, I recommend that Alabama expand afterschool programs within the state and incorporate technical education into these afterschool programs. With the workforce development program that is already robust, and a community college system geared towards delivering technical education, incorporating technical education into an expanded afterschool program will go a long way towards strengthening technical education at the K-12 and ultimately closing the skills gap that threatens the Alabama economy. The demand for afterschool programs is there, even though policy makers did not increase funding for afterschool programs in previous budgets. Hence, the issue will still be salient and the receptibility of this policy is open to change.

Unfortunately, money for an expansion is not readily available. However, I recommend that Alabama dedicate funds to creating afterschool programs in impoverished school districts primarily for decreasing the waitlist backlog for afterschool programs. This will serve as a great starting point for Alabama to incorporate waitlisted children into the technical education pipeline.

Implementation

In addition, the funds will be phased in over a 6-year period. The National Conference for State Legislators cite that 24% of children in afterschool programs live in concentrated areas of poverty (NCSL, 2019). Using 24% as a baseline to guide the state's funding, the state can begin funding for afterschool programs with technical education for impoverished students using the assumption that 42% of high school students concentrate in technical education. That would cost the state of Alabama over a 6-year period approximately $38 million. Over the 6-year period, that comes out to a little over $6 million dollars a year, which is simply double the "Community Education" line item allocation.

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