Panel Summary: Capacity Building

Introduction

From textbooks, to school buildings, to broadband, infrastructure is the integral component of our education systems, and without it, our programs cease to exist. Currently, Georgia receives a C+ rating on our brick-and-mortar education infrastructure, which does not account for increased staff support and technology needs. Georgia schools regularly underperform in these areas as well, especially in low income, rural communities. It is crucial that these important structural issues be highlighted. To build a functional education and workforce pipeline, it is vital that we ensure foundational capacity.

On July 28th, 2021, Science for Georgia — in partnership with Science is US, Technology Association of Georgia, Urban League of Greater Atlanta, Partners in Change, and Literacy for All — held the final panel in a four-part speaker series on Education and Workforce. The panelists, representing leaders in Georgia's business and education community, spoke on the complex concerns surrounding capacity building and put forward evidence-based suggestions to address where our infrastructure fails, and what we need to do better. Their suggestions and resources for continued learning have been included in our summary in the hopes that we carry these recommendations forward. For a complete look at our panel, please visit https://bit.ly/GAEduWork21.

The Issues

The first panelist, Chris Clark, is the current President and CEO of the Georgia Chamber of Commerce. In the past three months, Georgia has had 45,000 new job openings in the technical sector, most of which remain unfilled. Currently, only 36% of Georgians have the appropriate credentials for success in their jobs. This will create a nearly 6 million worker deficit in Georgia over the next few years. These are long-term issues that require long-term solutions. Often, students don't know what opportunities are available to them, especially in STEM fields. Resources from K-12 and through TCSG must provide real-world examples of the STEM job market and get students interested and involved in these fields early on. Georgia can create sustainable, long-term solutions to our labor shortage through collaboration with our education system, businesses, and students. The Georgia Chamber of Commerce, through their Smart Decisions Coalition, proposes that to reach our goals, we must improve the ratio of high school counselors to students, increase FAFSA completion rates, increase financial support for DACA, low income, and rural students, and streamline our training and credentialing programs.

Larry Williams, President and CEO of the Technology Association of Georgia, further highlighted these needs. He emphasized preparing students for the workforce of tomorrow and preparing tomorrow's leadership today. Non-traditional pathways and credentialing programs must be developed to appeal to more Georgians as they enter the workforce and as they need to upskill during their careers. He applauded the work and goals set by the Chamber of Commerce and by the Lt. Governor's office in these areas.

Lieutenant Governor Geoff Duncan followed this by sharing his vision for making Georgia the technology capital of the East Coast. Many gaps exist in the current technology landscape. In order for Georgia to fill these gaps, it must build an ecosystem of investment tools and a culture in which technology thrives. Major tech companies often align themselves in areas such as New York City and Silicon Valley that create attractive cultures around their brands. By highlighting Georgia's unique combination of southern hospitality and innovative drive, Georgia's tech sector can situate themselves on the global stage. Partnerships like the Partnership for Inclusive Innovation drive these ideas forward and push Georgia to this goal. Lt. Governor Duncan emphasized our need for K-12 Education programs to fully encompass STEM and TECH career training, and to involve business in the initiatives. Inviting global business investments and local involvement in Georgia's technical sector will help further the tech ecosystem and create spaces for additional resources and focus on our spaces.

The next panelist, Stephen Pruitt, PhD, is President of the Southern Regional Education Board, and previously has worked as Kentucky's State Commissioner of Education and as Chief of Staff at the Georgia Department of Education. He has also served on the National Academies of Science Committee on Conceptual Framework for New Science Education Standards that developed the Framework for K-12 Science Education.

Dr Pruitt shared that data collected by SREB that shows individuals with lower levels of education, who are in lower income jobs, are most greatly impacted by workforce changes driven by automation. We are entering the 4th industrial revolution, marking a major shift in the way our labor and economy systems operate. The pandemic accelerated this shift, and SREB predicts that 30% of work activities will be automated by 2025. Jobs of all industries will begin to rely more on STEM skill sets to accomplish tasks, which will require increased STEM education. In Georgia, 12% of adults ages 25-64 lack a high school diploma or equivalency. If nothing is done to change the way our educational system operates, by 2030 we will see 1.5 million unemployable adults in Georgia. As automation accelerates, more adults will find themselves unemployable earlier on in their careers. To address these issues, Dr. Pruitt proposes an aligned system from Kindergarten through retirement that views education as an inclusive ecosystem. Ensuring that equitable career pathways and work-based learning programs exist at every level helps integrate workforce training and education. A complete ecosystem helps Georgia meet workforce needs by having students graduate workforce-ready and enabling current workers to upskill and industry needs change.

Lawrence Baines, Professor and Director of Teacher Education at Berry College, addressed the state of education infrastructure in the state of Georgia. He emphasized a need for more funding for physical infrastructure, support staff, and teacher salaries.

Currently, an estimated 50% of all school districts need repairs and upgrades to their physical infrastructure. In Georgia, most infrastructure funding comes from state and local sources. Consequentially, schools in more rural or in areas with lower property values suffer dramatically.

As school budgets are stretched, support staff are also thinned. It is recommended that every school has 1 full time nurse, 1 full time librarian, and 1 counselor for every 200 students at a minimum. Currently, Georgian schools average 2300 students per 1 nurse, 900 students per 1 librarian, and 450 students per 1 counselor. Without these vital supports, student health and wellbeing are de-emphasized, which makes it harder to learn and harder for students to choose successful career pathways.

Teachers are a vital part of school infrastructure. Studies show that students who learn from highly rated teachers out earn their peers by $2 million over their lifetime. Requirements to become a teacher have been steadily declining in Georgia over the years. And recruiting highly rated teachers requires higher pay.

The final panelist, Rebecca Parshall, is the Senior Program Officer at Learn4Life, an organization dedicated to ensuring education success for all children through researching resource allocation, community/ business partnerships, and cradle-to-career initiatives. Ms. Parshall's work currently centers on collecting data on what is working and then scaling strategies that work.

Benchmarks show that over 50% of students in the metro Atlanta area fall below proficiency level in key data points such as the 3rd grade reading level, 8th grade math proficiency, and kindergarten readiness. Despite this, students graduate high school at a rate of 81%, suggesting that many of these students may not have fully developed the skills necessary to be successful in either post-secondary education or the workforce. When this data is broken down by race and class, disparities become glaringly apparent, with a 40-point gap between white students and students of color. Ms. Parshall emphasized that we must look at this data through an equity lens to determine solutions. Learn4Life has been using a data-oriented approach to identify programs that are successful with the students that are typically underserved.

Proposed Actions to Take

From the perspectives of our panelists and current research in the field, we have created a list of actionable ways we can bolster Georgia's education infrastructure.

1. **Expand Education Options**
   The needs of our workforce have drastically changed over the last 20 years. As jobs require new skillsets and credentials, Georgia's education system must expand to meet them. Advocate for increased funding for career education programs in your local school

district at your local school board meetings. Encourage your workplace to get active in these initiatives through sponsorships, shadowing opportunities, and work-based learning involvements to increase available infrastructure and support the community's workforce.

2. **Promote Comprehensive K-12 STEM Education**
   If we do not begin with the end in mind, education programs will continue playing catch-up to accommodate gaps in fundamental skill sets. Beginning with evidence-based literacy and numeracy programs in early education and continuing to broad-spectrum technical education training in high school, education standards must change to reflect the changing needs of our workforce pipeline. Up to date technology, new credentialing programs, and hands-on education labs are essential infrastructure needs that schools must meet to prepare students for the workforce. These needs need to be communicated by businesses, educators, and community members. Write a letter or call your representative to encourage them to expand how we teach education to align with real-world needs.

3. **Improve Ratios**
   Currently, Georgia schools lack the necessary support staff to keep students learning in a healthy environment. With few available counselors and bad teacher-to-student ratios, students must determine their future pathways with little to no guidance. States with improved ratios of counselors to students consistently test higher on national placement tests, are accepted into college at greater levels, and perform better on college entrance exams such as the SAT. Write to your local and state representatives and speak to your school board officials to advocate for change. Funds must be allocated, and standards for support staff to student ratios must be changed, to give students the support they need when transitioning from student to active member of the workforce.

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