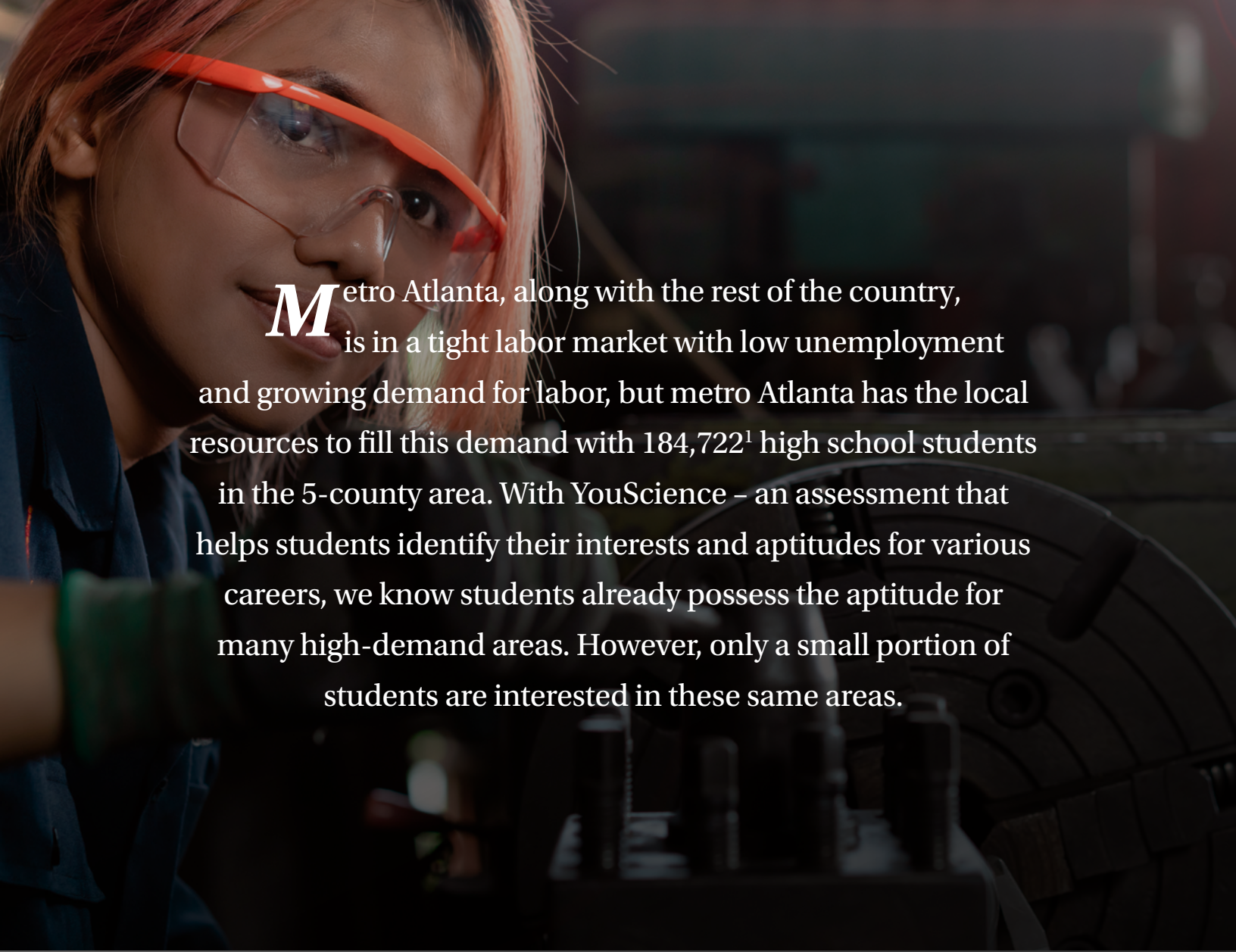




Interest and Aptitude ASSESSMENT REPORT

Clayton, Cobb, DeKalb, Fulton, and Gwinnett Counties





Metro Atlanta, along with the rest of the country, is in a tight labor market with low unemployment and growing demand for labor, but metro Atlanta has the local resources to fill this demand with 184,722¹ high school students in the 5-county area. With YouScience – an assessment that helps students identify their interests and aptitudes for various careers, we know students already possess the aptitude for many high-demand areas. However, only a small portion of students are interested in these same areas.

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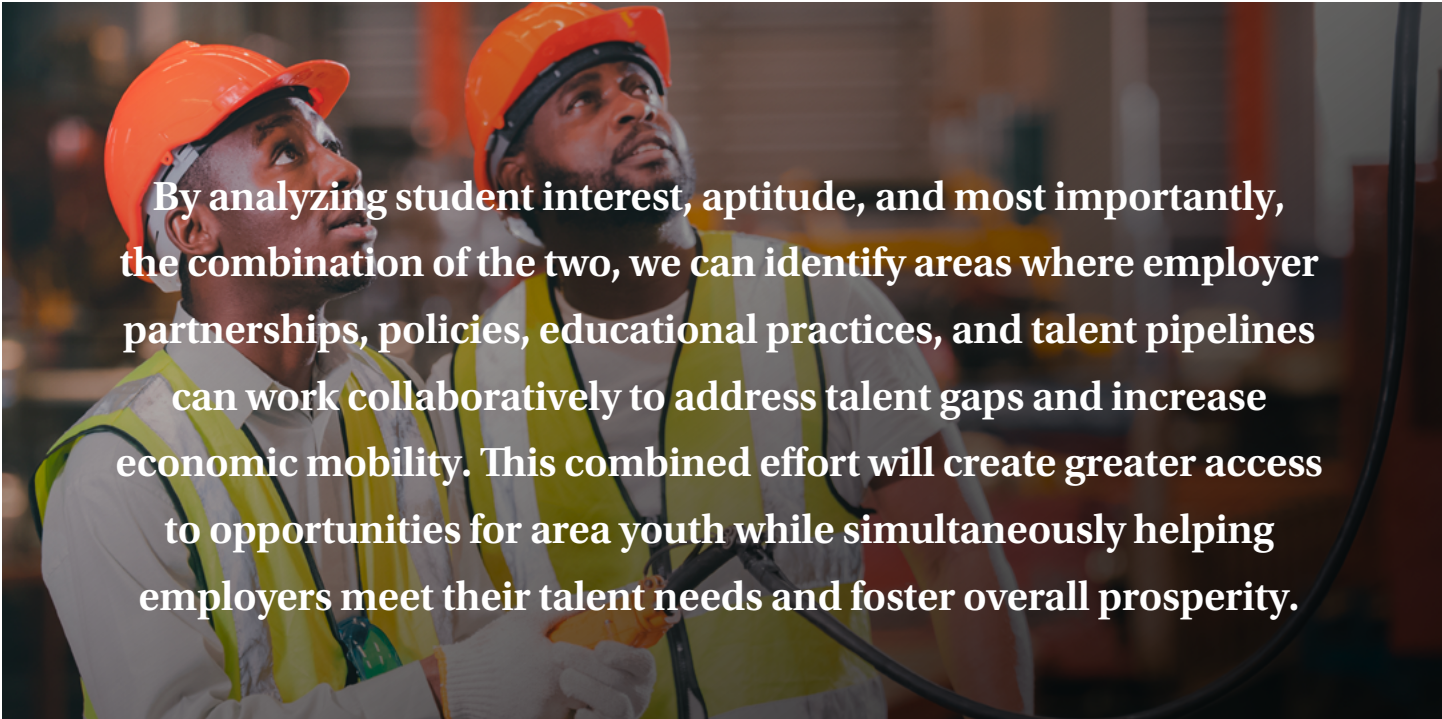


Students can have multiple areas of interest; however, YouScience defines student interest in a field if it ranks among their top three areas of interest from the career interest survey portion of the assessment. Additionally, aptitude is determined by how students perform in areas such as spatial visualization, sequential reasoning, numerical reasoning, and inductive reasoning.

The purpose of this report is to provide insightful and actionable information relevant to educators, administrators, employers, and stakeholders within the community.

This disconnect between student interest and aptitude is partly due to an exposure gap, where students' lack of interest in a given occupational cluster is more a lack of awareness about the cluster than disinterest in the cluster. In healthcare, the gap is significant, with 44% of students having high aptitude, and only 10% have both interest and aptitude. Addressing the exposure gap means intentionally increasing awareness and interest, particularly among low-income students and students of color, about high-demand, high-wage career paths. Creating opportunities to match these students with quality careers, will not only help fill the talent pipeline but ultimately lead to economic mobility and generational wealth.

Students' lack of interest in a given occupational cluster is more a lack of awareness rather than disinterest.

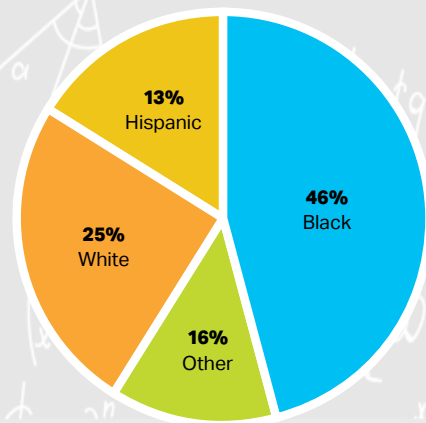
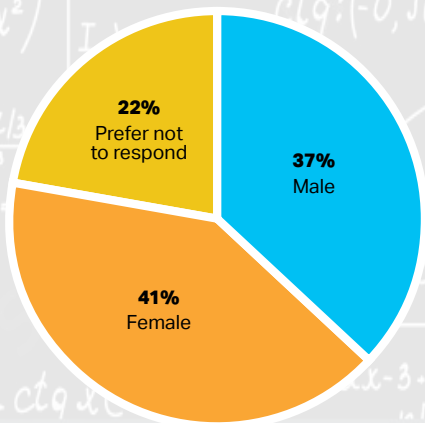
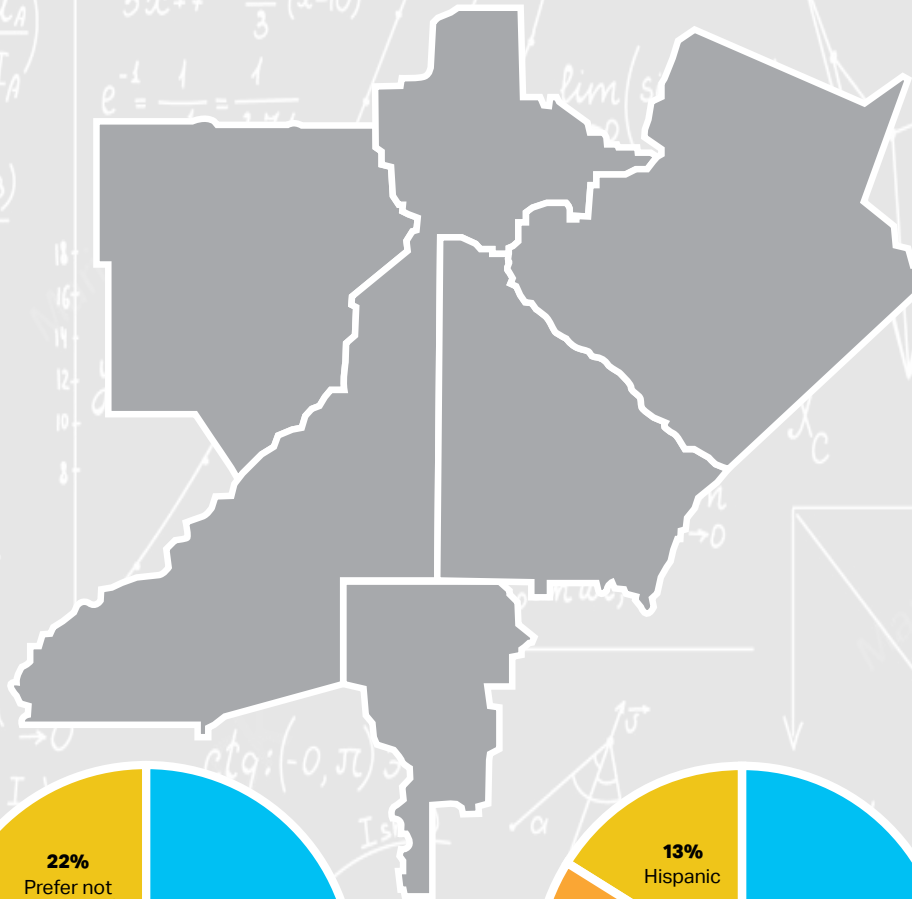


By analyzing student interest, aptitude, and most importantly, the combination of the two, we can identify areas where employer partnerships, policies, educational practices, and talent pipelines can work collaboratively to address talent gaps and increase economic mobility. This combined effort will create greater access to opportunities for area youth while simultaneously helping employers meet their talent needs and foster overall prosperity.

The Data

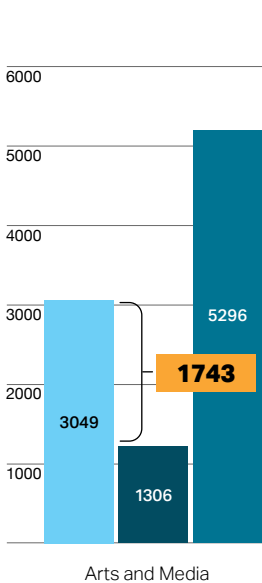
This report examines the interest and aptitude assessments of 12,728 high school students in the 5-county area. The analysis includes Atlanta Public Schools, City Schools of Decatur, Clayton County Schools, Cobb County Schools, DeKalb County Schools, Fulton County Schools, Gwinnett County Schools, and Marietta City Schools, totaling 66 high schools. Notably, half of these high schools are Title I schools – schools that have a large concentration of low-income students where at least 40% of students are enrolled in free and reduced lunch.

Interest and aptitude data is organized into 17 different clusters that align with industries and occupations. While this report draws data from YouScience, the data represent a sample of the interest and aptitude measured by similar assessment products used throughout the region.



Findings by Industry and Occupation Clusters

Over the next 5 years, the 5-county Atlanta area is anticipated to witness a remarkable growth of over 140,000 new jobs. Among the various sectors in the region, the Arts, Entertainment, and Recreation industry is set to experience the highest year-over-year growth rate of +2.3%. Additionally, the Health Care and Social Assistance sector is expected to see a substantial increase of over 20,000 jobs, projecting the strongest job growth in terms of sheer numbers. This forecast paints an exciting picture of the employment landscape in the years to come.



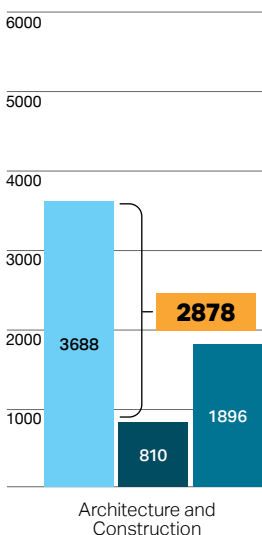
The Arts, Entertainment, and Recreation Industry is projected to create around 4,500 job opportunities in the next five years. The majority of these jobs will be in the Arts, Design, Entertainment, Sports, and Media fields, where the mean annual wage is approximately \$78,100.²

Among all school systems, the Arts & Media cluster ranks among the top five in terms of student interest and combined interest and aptitude. For Cobb County Schools, the Arts & Media field is the highest-ranked area for students who possess both interest and aptitude.

The Arts & Media cluster encompasses various occupations, including Journalism and Broadcasting, Performing Arts, Printing Technology, Telecommunications, and Visual Arts.

An impressive 42% of students have expressed interest in this area, although only 24% have demonstrated aptitude, with a mere 11% possessing both interest and aptitude. About twice as many female students have high aptitude compared to male students, but interest levels are fairly similar for both female and male students.

NAICS Industry Name: Arts, Entertainment, & Recreation
SOC Occupation Group: Art, Design, Entertainment, Sports and Media
YouScience Occupation Cluster: Arts & Media



The Construction Industry is projected to add 2,085 jobs in the next five years, offering a mean annual wage of \$70,531.³

When it comes to aptitude, Architecture and Construction ranks 4th, with 29% of students displaying a knack for this field. However, it ranks 14th out of 17 clusters in terms of interest, with only 15% of students showing interest for this area. Across all the high schools included, only 6% of students possess both interest and aptitude in Architecture and Construction.

APS and Gwinnett County Schools boast the highest percentage of high school students (10% and 13% respectively) who exhibit both interest and aptitude in Architecture and Construction. Male students had both higher aptitude and higher interest in this area.

NAICS Industry Name: Construction
SOC Occupation Group: Construction and Extraction
YouScience Occupation Cluster: Architecture and Construction

■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

²JobsEQ, <http://chumeraecon.com/jobseq>
³JobsEQ, <http://chumeraecon.com/jobseq>

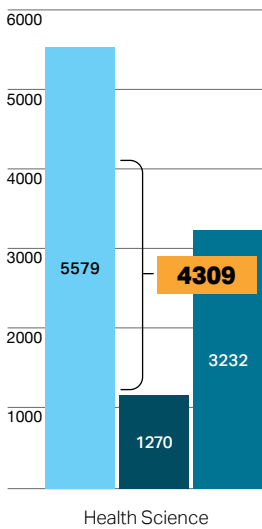


The Health Care and Social Services Industry is projected to expand by 1.6% over the next five years, resulting in the creation of 21,492 job opportunities. Among these, over 40% will be in Healthcare Practitioners and Technical Occupations, offering a mean annual wage of \$106,500.00.⁴

The Health Science cluster encompasses a wide range of occupations, totaling over 100 roles, including Biotechnology, Diagnostic Services, Health Informatics, Support Services, and Therapeutic Services. Notably, Therapeutic Services comprises 74 occupations, reflecting the prevailing demand within this field.

Across all school systems, the Health Science cluster ranks in the top five in terms of student aptitude and combined interest and aptitude. Surprisingly, while 44% of students exhibit high aptitude in Health Science, only 26% show interest, and merely 10% (1,270 high school students) possess both aptitude and interest. However, in both Clayton County Schools and Fulton County Schools, Health Science is the lead occupational cluster for both aptitude and combined interest and aptitude. In this field, interest and aptitude were similar for female and male students.

NAICS Industry Name: Health Care and Social Services
SOC Occupation Group: Healthcare Practitioners and Technical Occupations
YouScience Occupation Cluster: Health Science

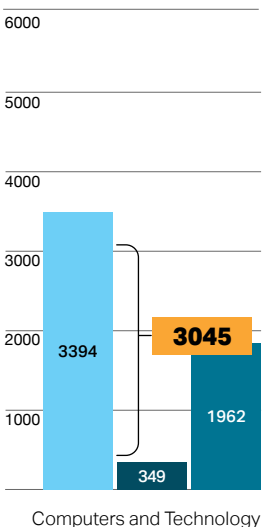


The Information Industry is projected to experience a steady growth rate of 1.6% per year in the next five years, resulting in the addition of 7,652 new jobs. However, when it comes to Computer and Mathematical occupations, the growth is even more promising, with an estimated 11,437 new jobs expected over the same period. These occupations also boast an impressive mean annual wage of \$111,500.⁵

Within the Computers & Technology occupational cluster, various pathways such as Information Support and Services, Network Systems, Programming and Software Development, and Web and Digital Communications, play a significant role. Overall, Computers & Technology ranks 3rd out of 17 occupational clusters, with 27% of students demonstrating a strong aptitude for this field. However, it ranks 11th in terms of student interest, where only 16% show interest and a mere 3% of students possess both interest and aptitude. More female students have high aptitude than male students in this area; however, male students have nearly double the interest than female students. Combined interest and aptitude for both female and male students is extremely low.

High schools in Cobb and DeKalb counties stand out in this area, as they rank 1st for aptitude. Remarkably, 33% and 43% of students from these respective counties demonstrate aptitude in the Computers and Technology field.

NAICS Industry Name: Information Technology
SOC Occupation Group: Computer and Mathematical Occupations
YouScience Occupation Cluster: Computers and Technology



■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

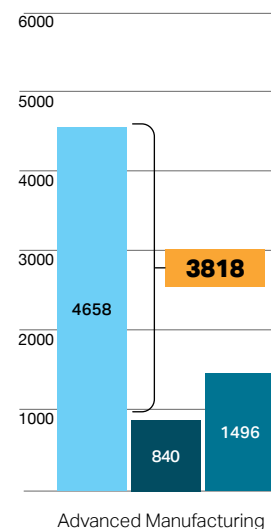
The Manufacturing Industry is poised for substantial growth in the coming years, with a projected addition of 2,863 jobs in the five-county area. These jobs offer an attractive mean annual wage of \$71,938.⁶ Excitingly, the upcoming Rivian plant, located just outside the five-county area in the larger Atlanta MSA, will further contribute by creating 7,500 additional jobs.⁷

Within the realm of Advanced Manufacturing, various occupational pathways such as Production, Maintenance, Installation and Repair, and Quality Assurance are available. It is noteworthy that Advanced Manufacturing ranks an impressive 2nd out of 17 clusters for students with aptitude, with 37% of students possessing the aptitude for this field. Only 7% of students demonstrated both interest and aptitude.

Across all school systems, aptitude for this area ranked among the top 5, but student interests did not align. In contrast, Gwinnett County Schools, ranked highest in both interest and aptitude, highlighting the exceptional potential of the local talent pool.

Similar to Computers and Technology, female students have higher aptitude than male students, but male students have much higher interest in this area than female students. Despite having less aptitude than female students, more male students have both interest and aptitude in this area.

NAICS Industry Name: Manufacturing
SOC Occupation Group: Production
YouScience Occupation Cluster: Advanced Manufacturing

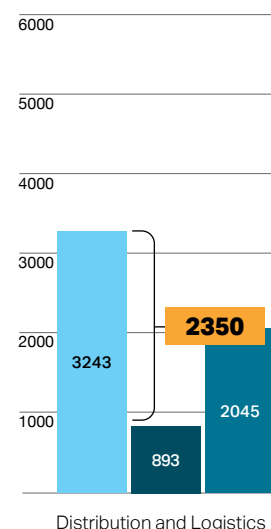


The Transportation, Distribution, and Logistics Industry is poised for a promising growth of 1.2% annually in the next five years, paving the way for 10,891 new job opportunities. In addition, the Transportation and Material Moving occupations anticipate adding 15,940 new jobs, offering a mean annual wage of \$49,800.⁸

Among the 17 occupational clusters, Distribution & Logistics secures a commendable 6th spot with 25% of students displaying aptitude. However, only 16% exhibit interest in this field and a mere 7% possess both aptitude and interest. Aptitude is similar for male and female students; however male students have much more interest and combined interest and aptitude in this field than female students.

Distribution & Logistics didn't make it to the top five when it comes to student interest within any school system included in this study. On the other hand, in terms of student aptitude, it claimed a spot among the leading five in Atlanta Public Schools. Remarkably, Distribution & Logistics ranks among the top five for combined interest and aptitude in Atlanta Public Schools, Clayton County Schools, and Gwinnett County Schools.

NAICS Industry Name: Transportation and Warehousing
SOC Occupation Group: Transportation and Material Moving
YouScience Occupation Cluster: Distribution and Logistics



■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

⁶ JobsEQ, <http://chumeraecon.com/jobseq>
⁷ JobsEQ, <http://chumeraecon.com/jobseq>

⁸ Georgia Public Broadcasting <https://www.gpb.org/news/2021/12/17/rivian-electric-vehicle-factory-drives-generational-5b-and-7500-jobs-east-georgia>

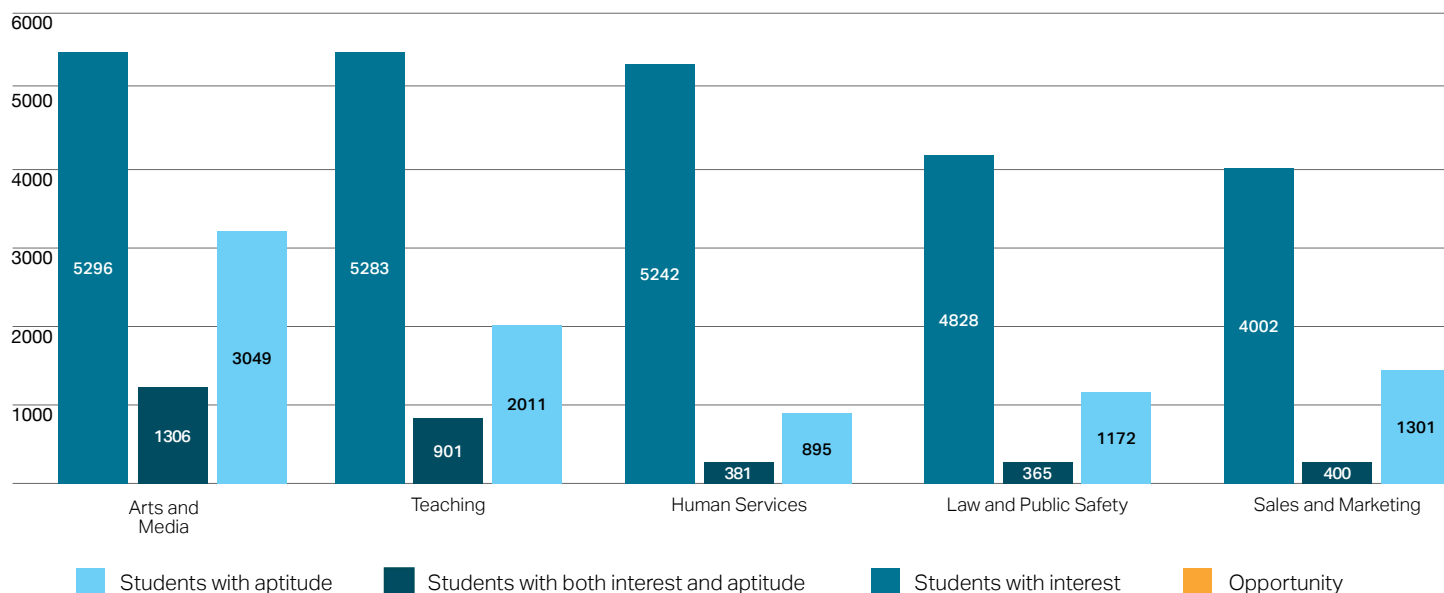
Findings by School System and School Type

In the 5-county area, certain occupational clusters exhibit exceptional aptitude among students. Health Science takes the lead with 44% displaying skill in this field, closely followed by Advanced Manufacturing (37%), Architecture & Construction (29%), and Computers and Technology (27%). As for interest, Arts & Media and Teaching are tied for the top spot with 42% having interest in these areas, followed closely by Human Services (41%) and Law & Public Safety (38%). However, when considering students who possess both interest and aptitude in the same cluster, the percentages drop considerably. Arts & Media and Health Science stand out with 10% of students having both interest and aptitude, while Teaching, Distribution & Logistics, and Advanced Manufacturing trail close behind with 7%.

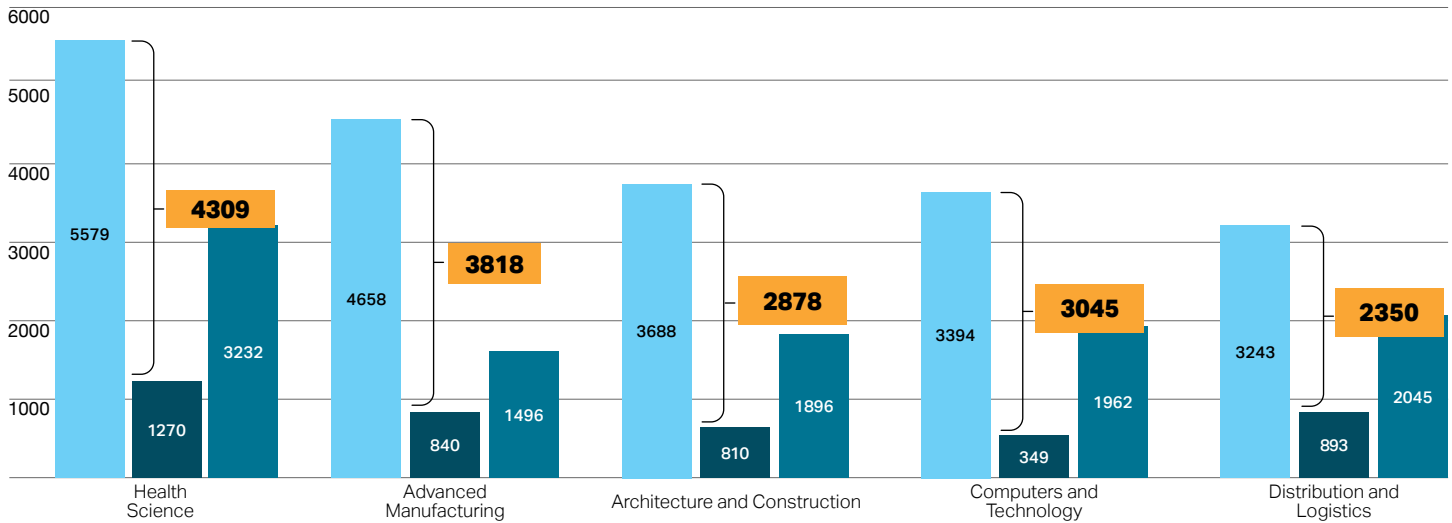
Although the top areas of combined interest and aptitude align well with the fastest-growing sector (the Arts, Entertainment, and Recreation industry) and the sector with the largest number of projected job openings over the next 5 years (Health Care and Social Assistance) the numbers still fall short of demand, leaving plenty of opportunity to fill demand with local talent.⁹

To better identify opportunities to grow student interest that align with employer demand, schools are grouped by geographic areas. Cobb County and Marietta City Schools are grouped together, and DeKalb County Schools and City Schools of Decatur are grouped together. The Atlanta Public Schools is compared to employer demand within the City of Atlanta and Fulton County Schools is compared to employer demand for all of Fulton County.

TOP 5 AREAS OF INTEREST



TOP 5 AREAS OF APTITUDE

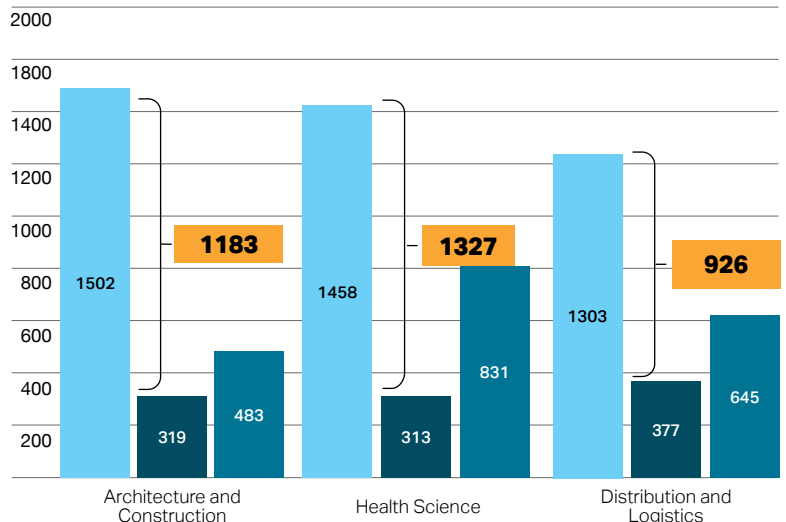


Atlanta Public Schools

There were 2,908 Atlanta Public Schools (APS) high school students included in the data. Among them, the top areas of interest are Arts & Media, followed by Teaching and Human Services.

With 51% of students interested in Arts & Media, and the Arts, Entertainment, and Recreation sector being the fastest-growing industry in the City of Atlanta,¹⁰ there is potential to fill these future jobs with local talent. However, meeting these future talent needs will require growing aptitude in this area since only 13% of students have both interest and aptitude.

For Advanced Manufacturing, Health Science, and Distribution & Logistics, it is the reverse, with more students showing aptitude than interest. In Advanced Manufacturing, 41% of students have the aptitude but lack interest, and for Health Science and Distribution & Logistics it is 40% and 32% respectively. There is incredible potential to increase students' interests and aptitudes with the demands of these industries by increasing student exposure.



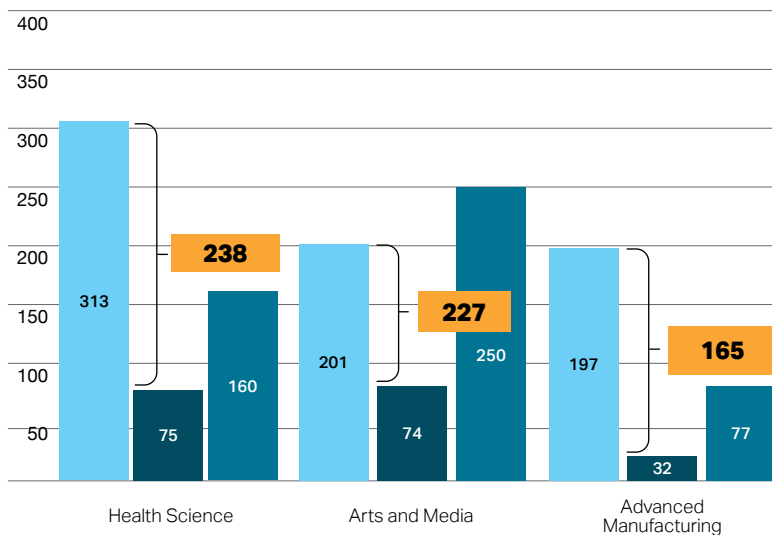
■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

Clayton County Schools

Within the dataset, 633 students from Clayton County Schools were included. The top areas of interest for Clayton County students are Arts & Media, followed by Teaching and Law & Public Safety.

Clayton County is poised to see a significant expansion in employment over the next year, with a projected increase of 1,190 jobs. The greatest number of job opportunities during this period is expected in Transportation and Warehousing, with an estimated addition of 515 jobs.¹¹

Clayton County high school students demonstrate a strong aptitude in Health Science (50%), Arts & Media (32%), and Advanced Manufacturing (32%), which aligns well with employment demand in the region. The exposure gap for students in these areas is significant with 38%, 20% and 26%, respectively, having aptitude but lacking interest.

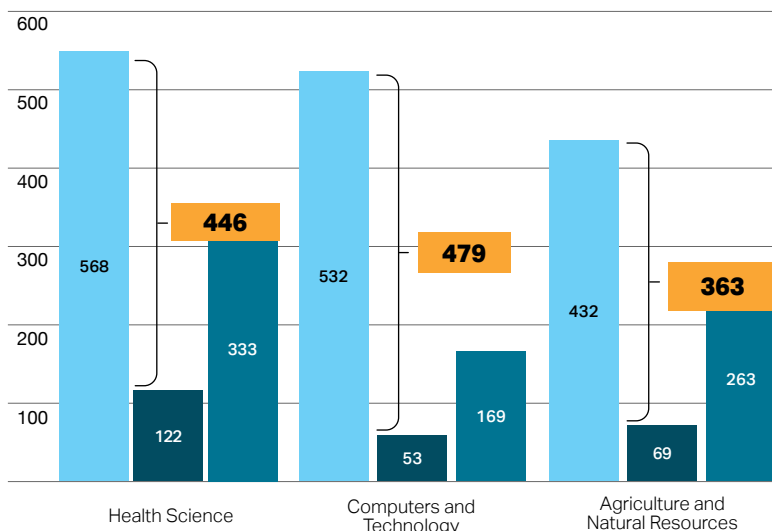


Cobb County Schools and Marietta City Schools

In the data provided, there were 1,073 high school students from Cobb County Schools and 378 from Marietta City Schools. Students from both school systems showed high interest in Teaching, Human Services, and Arts & Media.

The systems had some differences in areas of high aptitude. Cobb County Schools students showed the highest aptitude in Computers & Technology, followed by Health Science, and Agriculture & Natural Resources. Marietta City Schools students showed high aptitude in Health Science, Advanced Manufacturing, and Architecture & Construction.

Looking ahead, it is projected that employment in Cobb County will witness a commendable growth of 4,769 jobs over the next 12 months with nearly 17% job growth being Health Care and Social Assistance.¹² While both Cobb County Schools and Marietta City Schools have high aptitude in this area, only 9% of students displayed both interest and aptitude. These findings highlight a significant opportunity to increase student engagement and awareness in order to bridge the gap and ensure these positions are effectively filled.



■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

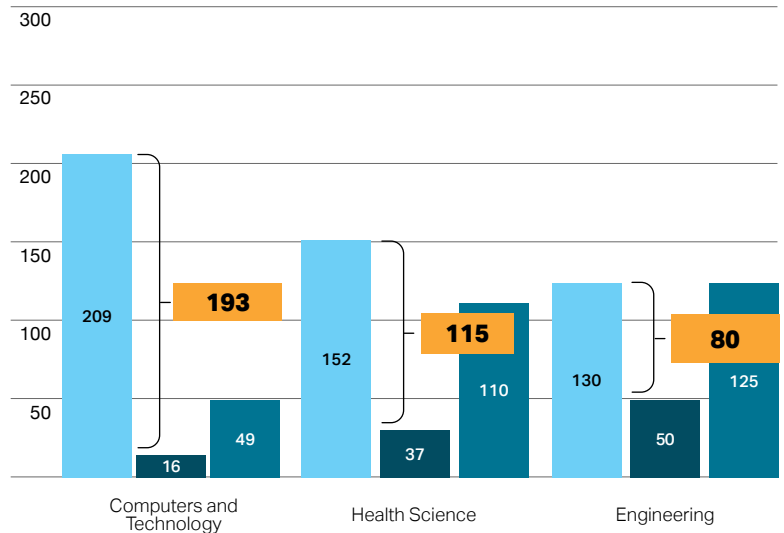
DeKalb County Schools and City Schools of Decatur

The data included 166 high school students from DeKalb County Schools and 282 students from the City Schools of Decatur. Students from DeKalb County Schools showed high interest in Law & Public Safety, Arts & Media, and Business; while students at City Schools of Decatur showed high interest in Human Services, Arts & Media, and Teaching.

Health Science, Advanced Manufacturing, and Architecture & Construction had the most students with high aptitude in DeKalb County Schools. City Schools of Decatur had the most students with high aptitude in Computers & Technology, Engineering, and Arts & Media.

DeKalb County foresees a promising increase of 2,183 job opportunities in the coming year. The Health Care and Social Assistance sector anticipates the largest surge with 619 new positions.¹³ While 34% of students display aptitude in the Health Science cluster, and 26% express interest in this field, only a mere 9% possess both matching interest and aptitude.

The Computers & technology area shows the greatest opportunity for closing the exposure gap, with 47% of students having high aptitude in this area and only 4% having both interest and aptitude.

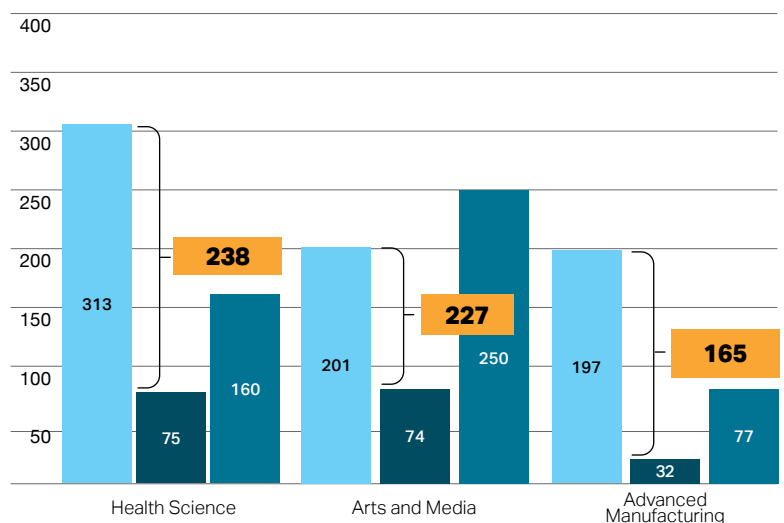


Fulton County Schools

Fulton County Schools had an impressive number of high school students assessed, totaling 7,193. Students showed high interest in Teaching, Human Services, and Arts & Media and showed high aptitude in Health Science, Advanced Manufacturing, and Architecture & Construction.

Job opportunities in Fulton are projected to expand by a substantial 14,018 positions in the coming year. The Arts, Entertainment, and Recreation, are projected to experience the highest growth rate with a remarkable year-over-year increase of 2.5%. Additionally, the Health Care and Social Assistance industry is set to contribute 1,887 new jobs, accounting for 14% of the overall new job additions.¹⁴

The biggest opportunity to increase student exposure and awareness is in the Health Science area, with 43% of students showing high aptitude and only 10% having both interest and aptitude.



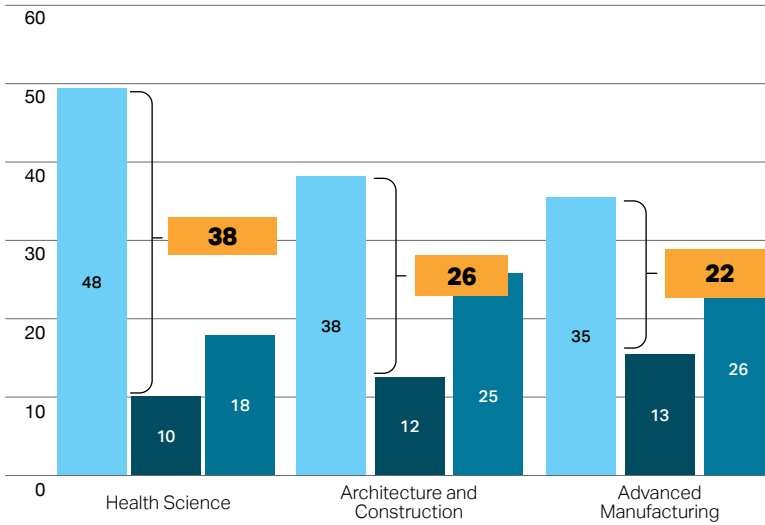
■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

Gwinnett County Schools

Gwinnett County Schools had the fewest high school students included in the data, with only 95 students assessed. The top areas of interest for Gwinnett County Schools students are Arts & Media, Law & Public Safety, and Distribution & Logistics. The top areas of aptitude are Health Science, Architecture & Construction, and Advanced Manufacturing.

In the next 12 months, Gwinnett County is projected to see a notable expansion of 5,715 jobs. The fastest-growing sector is expected to be Arts, Entertainment, and Recreation, with an impressive year-over-year growth rate of 2.2%. Moreover, the strongest job forecast for this period is in Health Care and Social Assistance, with an additional 834 jobs.¹⁵

While the top areas of interest and aptitude align well with the projected job growth in the county, with 51% of students showing high aptitude in Health Science occupations and 40% expressing interest in Arts & Media occupations, only 11% and 8% respectively of students have both interest and aptitude in these areas.



Title I Schools



Title I high schools, which serve a significant number of low-income students, encounter unique obstacles in equipping their students for the workforce. However, when compared to other schools, Title I high schools demonstrate similar outcomes in terms of students' interests and aptitude for high-demand occupations. The top five areas of interest and combined interest and aptitude at Title I schools compared to other schools, are virtually identical, albeit with slight variations in ranking. However, a noteworthy distinction emerges -Finance solely emerges in the top five areas of aptitude for Title I schools.

To bridge the disparity between socioeconomic classes requires increased interest and awareness among students regarding lucrative careers at Title I schools. Such efforts can furnish students with the essential tools to thrive in the workforce. By providing equal access to high-paying professions, the region can foster a more equitable society wherein every individual can unlock their true potential.

■ Students with aptitude
 ■ Students with both interest and aptitude
 ■ Students with interest
 ■ Opportunity

Recommendations

Increasing student interest in careers starts with building awareness. Career awareness and exploration activities provide students with an opportunity to learn about many careers they otherwise wouldn't get exposed to, and the required education pathway to enter those careers. Linking career awareness to the curriculum, through work-based learning, will not only increase interest in careers; studies have shown that work-based learning (WBL) also promotes student success when it comes to grade point average and persistence.¹⁶

WBL can be as simple as job shadowing, with limited time and cost to the employer, to a semester-long internship or even a two-year apprenticeship program, which requires a more extensive employer investment. Regardless of the scope of the work-based learning program, programs with a mentoring component that help to build a student's social capital, in addition to providing a quality learning experience, generate the best outcomes while also promoting equity.¹⁷



Career Awareness and Exploration Activities

- Guest Speakers
- Career Days
- Field Trips
- Career Fairs
- Business and Industry Presentations
- Mock Interviews
- Capstone Projects
- Career and Technical Student Organizations

Work-Based Learning

- Job Shadowing
- Internships
- Apprenticeships
- Mentoring
- Teacher and School Staff Externships

¹⁶ Swail and Kampits, Work-Based Learning and Higher Education <https://files.eric.ed.gov/fulltext/ED499880.pdf>

¹⁷ Brookings Metropolitan Policy Program, www.brookings.edu/wp-content/uploads/2020/11/20201120_BrookingsMetro_Work-based-learning_Final_Report.pdf

Business Recommendations

- Explore the various types of work-based learning opportunities for students.
- Extend career opportunities to students, particularly those from Title I schools by engaging with K-12 classes, providing projects to teachers, arranging teacher & staff externships, and more.
- Provide work-based learning opportunities to high school, early college, and out-of-school youth.
- Welcome teachers and school staff for short-term externships and real-world projects.
- Encourage your employees to serve as guest teachers or speakers in schools.
- Publicly speak out and advocate for increased funding for school counseling and career advising, encourage additional business investment in work-based learning programs, and share your experiences with other employers who aspire to replicate your achievements.

Education Recommendations

- Engage industry associations, chambers of commerce, and labor unions to implement and support meaningful work-based learning programs aligned with school curriculum.
- Offer guidelines for employer mentor selection, training, and ongoing involvement
- Support teachers in collaborating closely with work-based learning coordinators and employer mentors to create individualized student training plans.
- Reserve more high school counselors' time for working directly with students and lower the average student-to-counselor ratio to the nationally recommended 250:1 average for secondary education.
- Partner with non-profits to increase opportunities for students to engage in industry exposure activities.

Policy Recommendations

- The state should continue to provide funding for student apprenticeships and support for institutions to successfully implement those programs.
- Expand work-based learning opportunities for students, including direct employer interactions, and other critical exposure to skills that are in demand; and integrate this expansion into school planning and college and career readiness activities required by the state and local districts.
- Allocate funding and resources to support dedicated WBL coordinators and reduce the counselor-to-student ratio.
- Incentivize schools and institutions to regularly include employers in the development of curriculum, skill-building activities, career exploration, and work-based learning opportunities.
- Allow state and local economic development incentives to include supporting efforts that increase student interest and aptitude in high-demand occupations and industries within their respective regions of the state.

Resources

Jobs for the Future: How to Develop and Effective Work-Based Learning Program

Metro Atlanta Chamber: Internship Toolkit

ATL Action for Racial Equity: Education and Workforce Development Playbook

School-level Data

Non-profits That Can Help

- Achieve Atlanta
- Career Rise
- Career Spring
- Christo Rey
- College Advising Corps
- College AIM
- Genesys Works
- Learn4Life
- Next Gen
- One Goal
- 3DE



Conclusion

Business and secondary and post-secondary education systems have a long history of partnering, placing students in jobs as they complete training programs. With student interest as the driving force behind the self-selection of training and education programs and pathways, it is imperative that business and education work together to increase student awareness and knowledge of not only their own student aptitude but also of what opportunities and future employment possibilities are available and attainable for them.

By closing the exposure gap, our region can create better career prospects for area youth and fill much-needed jobs all while contributing to the overall growth of the economy and increasing personal economic mobility. As educators, parents, policymakers, and professionals, it is our responsibility to provide students with the knowledge they need to make informed decisions about their futures and help students pave the way for successful and fulfilling careers.

We owe it to our kids to offer them choice-filled lives and access to careers that are fulfilling and rewarding. By bridging this exposure gap, we can simultaneously support our students' aspirations while addressing a looming talent crisis that could limit the future growth of the region.



Learn4Life is a collective-impact non-profit composed of people and organizations committed to improving cradle-to-career outcomes for the nearly 600,000 students in metro Atlanta's five-county, eight-school district region. We have a vested interest in making sure all students succeed, especially those furthest from opportunity – our Black, Latinx, and low-income students, because we know Atlanta's long-term vitality and prosperity depends on our commitment to educating our young people and preparing the next generation of leaders and citizens.



The Metro Atlanta Chamber (MAC) is a 164-year-old organization representing businesses, colleges and universities, and nonprofits across the 29-county region that makes up the nation's eighth-largest market.

Member companies invest in MAC's work to attract and retain business, ensure a business-friendly climate through public policy efforts and market the region as a great place to live, work and play.