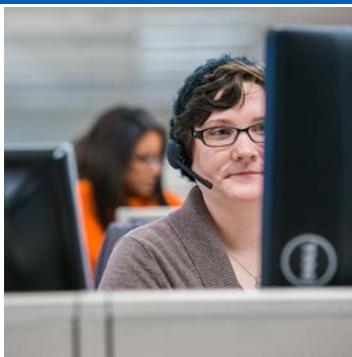


# COBB

## WORKFORCE PARTNERSHIP

DECEMBER 2015





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## LETTER FROM PROJECT LEADERS

Cobb Community Members,

We are pleased to present the Cobb Workforce Partnership project report. Your Chamber of Commerce has made workforce development its number one priority for 2015. This report builds on Governor Deal's successful High Demand Career Initiative and works to implement and expand the model at the local level. This project's initial goal was to identify and understand the workforce needs of Cobb businesses. We can confidently say that the project has accomplished that goal. Additionally, the project sought to strengthen relationships between Cobb employers and the educational infrastructure in the county. Cobb County Schools, Marietta City Schools, Chattahoochee Technical College, Kennesaw State University, Life University, and Georgia Highlands College are all actively engaged in this project and are taking positive action to improve the county's workforce supply chain and close the gap between employer demand and workforce supply.

This report is a roadmap for workforce development efforts in Cobb. It identifies areas where the county is strong and also areas where there is more work to do. We believe that this initiative will strengthen our local talent pool for all Cobb businesses. We look forward to the partnerships, programs, and new opportunities that will come out of this program. More than 30 Cobb firms participated in the project steering committee meetings sharing invaluable feedback. We would like to thank them for their time and for providing input on their workforce needs.

It is important to remember that good workforce development is good economic development. As we strengthen the workforce supply chain in the county, we will improve the quality of life for families, provide increased opportunities for all residents, and address some of the most critical workforce needs of Cobb businesses. These efforts also will improve the strong business climate in the community and support efforts to recruit and retain businesses. This report is only the beginning of a historic project for Cobb. Thank you for your support of this important effort.



Kim Menefee  
Chair, Cobb Chamber of Commerce  
Sr. Vice President, Strategic Community Development  
WellStar Health System



Dr. Ron Newcomb  
Chairman, Cobb Workforce Partnership  
President, Chattahoochee Technical College

## PROJECT OVERVIEW

According to a 2013 survey by *Area Development* magazine, the availability of skilled labor was the top site selection factor according to site selection consultants; workforce development was considered more important than incentives, highway accessibility, labor costs, tax rates, and a host of other factors. Businesses in Cobb County, in Georgia, and across the nation have repeatedly stated that recruiting and retaining a qualified, trained, and reliable workforce is one of their greatest challenges. Similarly, the Governor’s High Demand Career Initiative, which this project was modeled after, identified gaps between the workforce supply and industry demand.

The Cobb Workforce Partnership is addressing current and future workforce needs and concerns. Specifically, the goal of the initiative is to have industry inform the workforce educational supply chain (programs, curriculum, training, and resources) in Cobb County. The effort brings together leaders from the Cobb Chamber of Commerce, K–12 educational systems, postsecondary education institutions, and other stakeholders to learn from companies in some key industry sectors about their current workforce concerns and future needs. The ultimate goal is to establish ongoing partnerships and communication to make continual improvements to the talent supply chain in the county.

The project was led by a steering committee made up of business, education, community, and economic development leaders from Cobb County. The Cobb Chamber of Commerce took the initial role of bringing the steering committee together and served as the convener during the project. The full steering committee membership list can be found on page 11. The steering committee’s role in conducting the needs assessment was to represent the educational and workforce interests of their organizations and listen to the current and emerging workforce needs in each industry. Five meetings with various industry sectors were held in August and September 2015. Appendix C details the project plan including the specific industry meetings.

Bringing all players to the table to determine needs, potential solutions, and strategic action has been a successful method used to grow Cobb in the areas of overall quality of life, business, and education. This project is a way to move Cobb forward in workforce readiness, job creation and development, and future growth using the same strategy.

— *Dr. Emily Lembeck,*  
*Superintendent,*  
*Marietta City Schools*



*Members of the steering committee visit the Floyd County Schools College and Career Academy*



## VISION

The vision of the Cobb Workforce Partnership is a future in which Cobb County employers know that students educated in Cobb have the skills that they are looking to hire and students in Cobb County know how to connect with internships, apprenticeships, and job opportunities in Cobb.

With that vision in mind, the Cobb Workforce Partnership envisions a future (next five years) where the following conditions exist:

- Industry and education are optimally connected and aligned.
- More employers have the workforce they need locally.
- Students and the underemployed/unemployed are more engaged and focused on a career path.
- A more defined workforce pipeline exists in Cobb County, and partners are aligned to coordinate and secure resources. An organizational structure is in place to facilitate the alignment of Cobb's business needs and workforce supply. The education systems respond quickly to the changing needs of employers and the skills they need.
- Parents, students, and teachers are more informed about career paths and the training and education required.
- Employers understand the changing needs and work style of the future workforce.
- Residents of Cobb County know where to go (e.g., resources, programs, and assistance) for career advice and training, and residents are more workforce ready/employable or able to start their own enterprises.

## MISSION

The Cobb Workforce Partnership's mission is twofold:

1. Leverage community partnerships to meet the workforce needs of industry through innovative approaches to education and training, and
2. Develop a workforce supply chain that eliminates skills gaps and is prepared to adapt to changing workforce demands in Cobb.

## KEY PERFORMANCE INDICATORS

The Cobb Workforce Partnership identified a series of measures that will help the participants know if their vision and goals are being achieved.

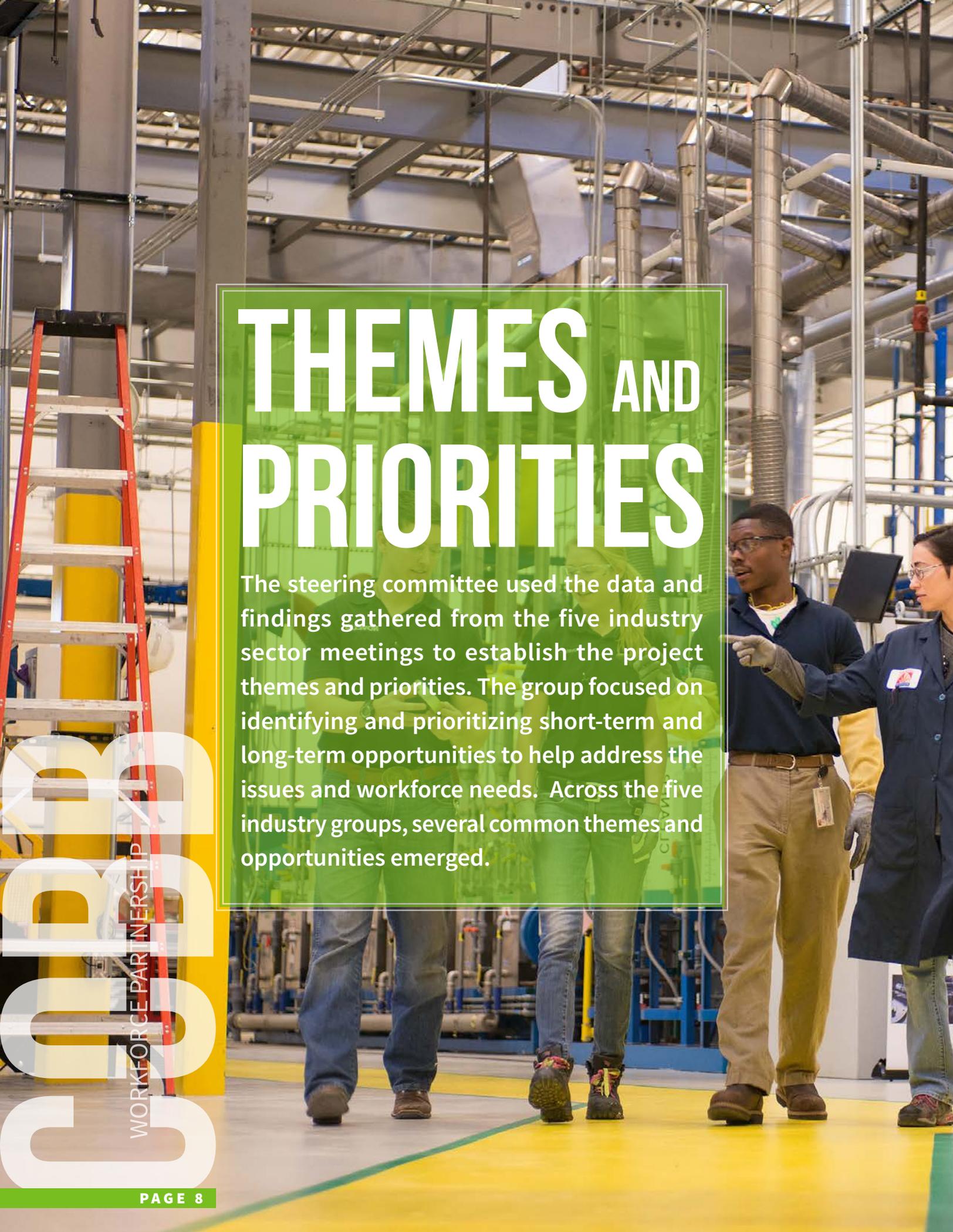
These measures provide tangible evidence that the strategies and activities of the partnership are helping to ensure that students and the underemployed have the skills employers need and that the Cobb workforce supply chain is strengthened through systemic alignment from high school to college to employment. The Steering Committee will continue to refine the measures that will ultimately be used to assess the work of the partnership and its ability to influence the number of youth who are on track for employment or further education. Appendix E includes a draft of detailed measure information and aligns the measures to the partnership's vision.

Measuring progress toward strengthening and improving the workforce supply chain in Cobb County has multiple inflection points that will need to be monitored and measured. Depending on a variety of factors, students in Cobb County should be prepared to enter the workforce or continue their education upon high school graduation. As a result, the measures identified track progress in both high school and two-year and four-year college employment paths as well as a path for students who do not complete high school but can gain training and credentials to enter the workforce or enroll in college. Additional measures will likely be needed that are specific to closing gaps in high-demand or hard-to-fill jobs within a given industry sector.

Regardless of the path a student takes to employment, some key performance indicators for this project include:

- Academic programing and construction of a world-class college and career academy
- Percentage of high school and college graduates who have a nationally recognized industry credential or licensure
- Number of curriculum changes made to align educational programs with employer needs
- Number of K-12 teacher externships and industry partnerships with education and training providers
- Number of high school students (11th and 12th graders) enrolled in career pathway programs
- Number of students dually enrolled in high school and college through programs like Move On When Ready
- A measure of job readiness through a soft-skills assessment (to be developed)
- Graduation rates of students completing a career pathway program or specialized academy
- Number of industry-provided case studies and projects for high school and college classes
- Number of high school and college students completing internships, apprenticeships, co-ops, or work-study opportunities
- Retention and graduation rates for high schools, two-year colleges, and four-year colleges
- Average age of first-time freshmen and graduates of two-year colleges
- A survey of Cobb residents to inform the partnership about whether students and teachers know about the workforce development resources in Cobb County and career paths available to students
- A survey of Cobb employers to provide key outcome data about Cobb employers' ability to hire locally and the skill level of job applicants





# THEMES AND PRIORITIES

The steering committee used the data and findings gathered from the five industry sector meetings to establish the project themes and priorities. The group focused on identifying and prioritizing short-term and long-term opportunities to help address the issues and workforce needs. Across the five industry groups, several common themes and opportunities emerged.

## PROJECT-WIDE WORKFORCE ATTRIBUTES AND THEMES

Businesses identified several key attributes and themes that were heard across all of the industry sector meetings, including:

### TEAMWORK

**Teamwork:** Businesses are looking for employees that can work on teams and collaborate with diverse groups.

### ANALYTICS

**Analytics:** Companies in several sectors are looking for talent who can analyze data, find the key takeaways, and help organizations make decisions.

### CAREER

**Increasing student, parent, and teacher awareness of career opportunities:** Business and education leaders identified a need to work with students, parents, and teachers to educate them about career pathways, dual enrollment, and job opportunities.

### STEM

**Science, technology, engineering, and mathematics (STEM):** Cobb companies highlighted the importance of STEM education and getting students engaged in STEM subjects. Companies recognize the need to be more engaged in both secondary and postsecondary education.

### CUSTOMER

**Customer focused:** Industry leaders identified strong customer service skills as a critical attribute for the workforce.

### SOFT SKILLS

**Soft skills and basic foundational skills:** Companies identified the need for employees with soft skills (e.g., punctuality, respect, etiquette, critical thinking, etc.) and basic foundational skills (e.g., reading, writing, and basic math).

### EXPERIENCE

**Real-world experience:** Companies indicated that for many positions they are looking for candidates with real-world experience such as internships, job shadowing, or prior work experience. Educators recognized the need for more real-world case studies and awareness of the types of problems industry is trying to address.

### AGING WORKFORCE

Companies in several sectors including construction, aerospace and engineering, and healthcare discussed their **aging workforce; many workers will soon retire with no one to replace them.**

### MILLENNIALS

Companies identified the **differences that millennials have in work style, motivation, interest, and needs** versus other generations.

The discussion during the sector meeting also allowed the partners on the steering committee to share some of the initiatives and programs that are happening in Cobb County with employers. Cobb County has numerous educational and training partners that run highly effective programs that impact the workforce.

*Appendix A highlights several of the successful business and industry partnerships occurring in Cobb County in education and training institutions.*



*Steering committee members visit an advanced manufacturing facility in Rome, Georgia.*

As workforce development teams work together with economic development teams, Cobb will soon provide the best work environment for its citizens, businesses, and partners.

— Greg Harris, Vice-President for University Advancement, Life University



# SHORT-TERM OPPORTUNITIES

The steering committee identified several key common short-term (six to 12 months) opportunities for action across all industry sectors:

Over the next six to 12 months, the Cobb Workforce Partnership project team will first refine these opportunities into specific strategies and tasks and then develop action plans to make progress in these areas.

- Aligning industry and schools around workforce development
- Setting up sector partnerships, with the steering committee responsible for fully implementing and overseeing the findings of this report
- Developing the architecture of the college and career academy and the implementation plan built around sector partnerships in accordance with this report
- Creating more awareness among industry and generating more interest in hiring “Cobb” graduates
- Marketing to youth at a young age and targeting the whole family and teachers with information about workforce skills needed now and in the future and highlighting the career and technical education programs available across Cobb County
- Assessing what is working and not working along the workforce supply chain generally and also specifically by industry sector
- Identifying three or four occupations that can serve as a baseline on how sector partnerships can influence workforce
- Establishing measurable outcomes and baseline measures for workforce development in Cobb County

Cobb will utilize these data and this strategy to inform our job training opportunities and work-based training initiatives.

— John Helton, President, Cobb Works

# LONG-TERM OPPORTUNITIES

The steering committee also identified several key common long-term (12 to 24 months) opportunities for action across all industry sectors:

The long-term opportunities identified are slated to be completed over the next 12 to 24 months or longer as needed. *Appendix D provides the notes of the steering committee’s prioritization activity.*

- Building a world-class college and career academy.
- Developing new and additional internships, apprenticeships, and work-study opportunities for both students and instructors.
- Creating a new model for soft skills development and a process for assessing soft skills.
- Developing instruction opportunities and practices that are meaningful and creating sustained partnerships with industry (e.g., industry problem-solving competitions, science teacher for a day, field trips, program advisory boards).
- Addressing the need for more qualified teachers and faculty in high school and colleges to teach high demand skills.

The two most important opportunities according the group are to develop new ways to market and inform students and their parents about career opportunities and to build a world-class college and career academy.



## PROJECT STEERING COMMITTEE

**RON NEWCOMB**  
Project Chairman,  
Chattahoochee  
Technical College

**KIM MENEFFEE**  
Cobb Chamber  
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Chairwoman, WellStar  
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**DAVID CONNELL**  
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Cobb Chamber of  
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Chattahoochee Technical College

Cobb County Schools

Marietta City Schools

Cobb County Schools

Cobb County Schools

Life University

Cobb Works

Georgia Department of Economic Development

Cobb County Schools

Marietta City Schools

Cobb County Schools

Office of Lieutenant Governor

Chattahoochee Technical College

Kennesaw State University

Kennesaw State University

Cobb County Schools

Georgia Highlands College

Kennesaw State University

Kennesaw State University

Georgia State Senate

Board of Education for the City of Marietta



## INDUSTRY LEADERS

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**WILL ETHEREDGE**

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**GRAEME MARSHALL**

**MARK ROWE**

**CHRIS SAVAGE**

**MARK WHITNEY**

Hire Dynamics

First Landmark Bank

Associated General Contractors of Georgia

JE Dunn Construction

Holder Construction

Holder Construction

UCB

Novelis

Kaiser Permanente

Lockheed Martin

Gay Construction



## COBB CHAMBER OF COMMERCE

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## PROJECT FACILITATION, DOCUMENTATION, AND STRATEGIC GUIDANCE

provided by The Carl Vinson Institute of Government at the University of Georgia

**DAVID TANNER and GREG WILSON**

graphic design assistance provided by UGA College of Environment

and Design's Center for Community Design and Preservation

**ELEONORA MACHADO**



*The steering committee discussing themes and priorities at the Cobb Chamber offices*



# 1

## CONSTRUCTION, INFRASTRUCTURE, AND RAW MATERIALS

### PARTICIPATING COMPANIES/ORGANIZATIONS

- Associated General Contractors of Georgia
- Brasfield and Gorrie
- Construction Education Foundation of Georgia
- Gay Construction
- Holder Construction
- JE Dunn Construction



# THEMES

## MEETING OVERVIEW

Representatives of the construction industry gathered on August 5, 2015 at Chattahoochee Technical College to discuss the industry’s workforce needs and challenges. The discussion centered on the large talent shortages in the skilled trades (e.g., carpenters, welders, pipefitters) and ideas to address those needs. Companies highlighted that the strong economy and numerous “mega-projects” in the Atlanta region (e.g., Falcons Stadium, Braves Stadium, new corporate campuses) and across the state (e.g., Plant Vogtle) have stretched the construction workforce. Companies have trouble finding employees, which is resulting in higher wages for employees and increased project costs.



*Students from Osborne High School’s construction class take a jobsite tour of Holder Construction Company’s State Farm KDC Park Center Project.*

## INDUSTRY OVERVIEW AND DATA

The construction, infrastructure, and raw materials industries employ more than 24,000 people in Cobb County.

**TABLE 1**—Construction, Infrastructure, and Raw Materials Employment Data & Number of Establishments in Cobb County

Industry	Establishments	2014 Employment	2014 Average Wages per Employee
Building material and garden supply stores	103	3,760	\$51,355
Construction of buildings	546	4,623	\$75,021
Lumber and construction supply merchant wholesalers	78	2,084	\$86,955
Specialty trade contractors	1,038	13,363	\$56,258

Source: Bureau of Labor Statistics, QCEW Program

## OCCUPATIONS

The top five occupations employed by this industry group in Cobb County are construction laborers, carpenters, retail salespersons, electricians, and first-line supervisors of construction trades and extraction workers. Tables 2 and 3 show the top 10 occupations that require a bachelor’s degree or greater and the top 10 occupations that require less than a bachelor’s degree in this industry sector, respectively, along with the most common educational requirement for the occupation and the median hourly wage.

- There are shortages in every construction trade, and projections show the issue becoming even more acute over the next decade.
- Businesses perceive an aversion to hard labor. Students would rather seek out “easier” jobs in the service industry.
- There is a lack of coordination between firms, training programs, schools, and other training providers (e.g., unions).
- Past workforce efforts in the construction industry have not been sustainable.
- Businesses see a lack of “grit” or work ethic in young people.
- Students and parents do not perceive jobs in construction and related industries as a career with rewarding potential and pay.
- There is a lack of knowledge about how the industry is organized (major contractor/subcontractor relationships).

**TABLE 2**—Top 10 Construction Sector Occupations in Cobb Requiring a Bachelor’s Degree or Greater

Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Sales representatives, wholesale and manufacturing, except technical and scientific products	586	Bachelor's Degree	\$25.72
Construction managers	533	Bachelor's Degree	\$44.72
Cost estimators	433	Bachelor's Degree	\$28.72
Sales representatives, services, all other	220	Bachelor's Degree	\$25.14
Accountants and auditors	121	Bachelor's Degree	\$33.87
Civil engineers	66	Bachelor's Degree	\$41.43
Purchasing agents, except wholesale, retail, and farm products	52	Bachelor's Degree	\$28.92
Business operations specialists, all other	46	Bachelor's Degree	\$32.16
First-line supervisors of non-retail sales workers	44	Bachelor's Degree	\$35.39
Chief executives	38	Master's Degree	>\$90

Sources: BLS OES Program, O\*Net

**TABLE 3**—Top 10 Construction Sector Occupations in Cobb Requiring Less Than a Bachelor’s Degree

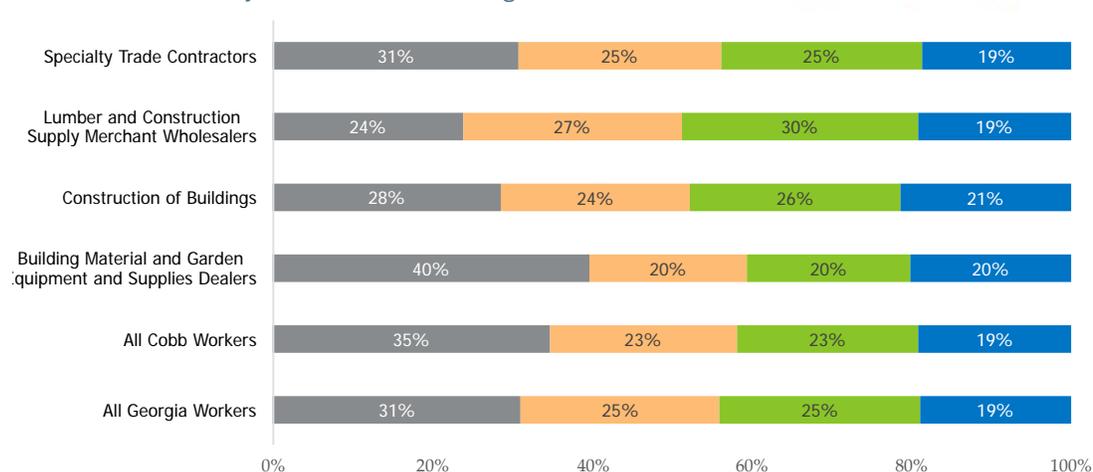
Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Construction laborers	1,760	High School Diploma	\$12.36
Carpenters	1,731	High School Diploma	\$18.04
Retail salespersons	1,450	High School Diploma	\$9.79
Electricians	1,448	Postsecondary Certificate	\$22.22
First-line supervisors of construction trades and extraction workers	1,062	High School Diploma	\$28.65
Plumbers, pipefitters, and steamfitters	992	Postsecondary Certificate	\$20.84
Office clerks, general	719	High School Diploma	\$13.03
Heating, air conditioning, and refrigeration mechanics and installers	655	Postsecondary Certificate	\$21.79
General and operations managers	577	Associate's Degree	\$49.56
Painters, construction and maintenance	558	High School Diploma	\$16.31

Sources: BLS OES Program, O\*Net

## AGE STRUCTURE

The current workforce of most of the companies in this sector is “older” on average than the overall Cobb labor force and all Georgia workers. For example, the “construction of buildings” industry age 45+ workforce is 5% greater than that of the state, and younger talent (age <35) comprises 7% fewer workers in this sector than in the overall Cobb workforce. Figure 1 shows the detailed age structure for the Construction, Infrastructure, and Raw Materials sector.

**FIGURE 1**—Cobb County Construction Sector Age Structure



Source: US Census Bureau LEHD Program, Carl Vinson Institute of Government

## HIGH DEMAND OCCUPATIONS IDENTIFIED

Representatives from the construction sector highlighted some of the jobs they have the most difficulty filling (see Table 4).

**TABLE 4**—Construction Sector Identified High Demand Occupations

Cement Masons	Plumbers
Concrete Truck Drivers*	Project Managers
Electricians*	Project Superintendents
Engineers	Quality Assurance Technicians
Equipment Operators	Roofers
Field Engineers	Welders
HVAC Technicians	

\*identified by more than one organization or company

## SKILLS AND ATTRIBUTES

Table 5 shows the top skills and abilities that sector representatives indicated they look for in potential employees.

**TABLE 5**—Construction Sector Skills and Attributes

Ability to Carry up to 80 Pounds	Honesty	Realistic Expectations
Comfortable with Technology	Leadership	Respect
Common Sense	Looking for a Career	Safety
Dependable	Maturity	Take Direction Well
Driver's License	Mobility	Willingness to Learn
E-Verify	Pass the Drug Test	Work for Extended Period on Feet
Flexibility	Patience	
Hardworking	Problem Solvers	

# 2

## ENGINEERING AND AEROSPACE

### PARTICIPATING COMPANIES/ORGANIZATIONS

- Croy Engineering
- Geo-Hydro Engineers
- GE Technology
- Lockheed Martin
- Novelis Global Research & Technology Center

# THEMES

## MEETING OVERVIEW

Leaders from Cobb County engineering and aerospace companies gathered at Chattahoochee Technical College on August 5, 2015 to talk about their workforce needs and training shortfalls, and the skills and attributes they are looking for in employment candidates. Cobb County is home to numerous engineering and aerospace firms that have diverse talent requirements; industry leaders identified the need to involve more women and diverse individuals in this sector. The aerospace industry highlighted the need to fill the talent pipeline in the early years (elementary school, middle school, and high school) with students interested in STEM to ensure that there are enough graduates to fill jobs in STEM-related fields.

Interestingly, many positions in this sector do not require a four-year degree, including team assembler, engineering technician, and materials tester. Career opportunities are available for those who have an interest in engineering and aerospace, even if they do not pursue a four-year degree or postsecondary education. Basic science and math courses like geometry, chemistry, physics, and calculus provide an important foundation.

## INDUSTRY OVERVIEW AND DATA

The engineering and aerospace industries employ more than 10,000 people in Cobb County. Table 6 provides details about employment in this sector in Cobb.

**TABLE 6**—Engineering and Aerospace Sector Employment Data & Number of Establishments in Cobb County

Industry	Establishments	2014 Employment	2014 Average Wages per Employee
Heavy and Civil Engineering Construction	111	2,344	\$51,725
Transportation Equipment Manufacturing	25	6,807	\$66,840
Utilities	20	1,087	\$88,206

Sources: Bureau of Labor Statistics QCEW, Census Bureau LEHD Program, EMSI

## OCCUPATIONS

The top five occupations employed by this industry group in Cobb County are team assemblers; construction laborers; operating engineers and other construction equipment operators; welders, cutters, solderers and brazers; and first-line supervisors of production and operating workers. Tables 7 and 8 show the top 10 occupations in this sector that require a bachelor's degree or greater and the top 10 occupations that require less than a bachelor's degree in this industry sector, respectively, along with the most common educational requirement for the occupation and the median hourly wage.

- Demand for professionals in engineering fields is constant. Every Kennesaw State University engineering graduate has multiple job offers upon graduation, and 90% of these graduates stay in Georgia after graduation.
- Companies are looking for workers who have the requisite education but also have some relevant internship or professional experience or exposure to the “real world” through experiential learning.
- Students need more hands-on and real-world problem-solving experience to engage them and keep them interested in STEM classes. K–12 education representatives expressed a desire to build stronger connections with industry so they could integrate real-world examples and problems into their materials.
- Employers want to attract more women and minorities into engineering.

**TABLE 7**—Top 10 Engineering and Aerospace Sector Occupations in Cobb Requiring a Bachelor’s Degree or Greater

Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Industrial Engineers	191	Bachelor's Degree	\$39.06
Mechanical Engineers	155	Bachelor's Degree	\$38.02
Aerospace Engineers	122	Bachelor's Degree	\$52.95
Purchasing Agents, Except Wholesale, Retail, and Farm Products	95	Bachelor's Degree	\$28.92
Industrial Production Managers	83	Bachelor's Degree	\$44.19
Electrical Engineers	79	Bachelor's Degree	\$41.27
Construction Managers	74	Bachelor's Degree	\$44.72
Business Operations Specialists, All Other	73	Bachelor's Degree	\$32.16
Accountants and Auditors	67	Bachelor's Degree	\$33.87
Architectural and Engineering Managers	67	Bachelor's Degree	\$61.36

Sources: BLS OES Program, O\*Net

**TABLE 8**—Top 10 Engineering and Aerospace Sector Occupations in Cobb Requiring Less Than a Bachelor’s Degree

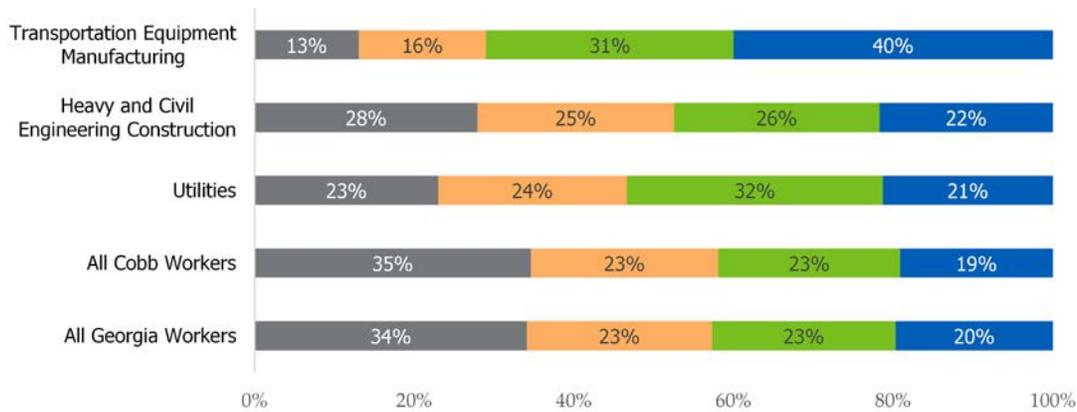
Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Team Assemblers	1,209	High School Diploma	\$12.32
Construction Laborers	499	High School Diploma	\$12.36
Operating Engineers and Other Construction Equipment Operators	270	High School Diploma	\$16.90
Welders, Cutters, Solderers, and Brazers	267	Postsecondary Certificate	\$16.67
First-Line Supervisors of Production and Operating Workers	245	High School Diploma	\$26.15
Inspectors, Testers, Sorters, Samplers, and Weighers	227	High School Diploma	\$15.11
Machinists	208	Postsecondary Certificate	\$17.00
Electrical Power-Line Installers and Repairers	193	Postsecondary Certificate	\$20.96
First-Line Supervisors of Construction Trades and Extraction Workers	179	High School Diploma	\$28.65
Aircraft Structure, Surfaces, Rigging, and Systems Assemblers	161	High School Diploma	N/A

Sources: BLS OES Program, O\*Net

## AGE STRUCTURE

The current workforce of every industry in the engineering and aerospace sector is “older” on average than the overall Cobb labor force and all Georgia workers. For example, Figure 2 shows that the “Transportation Equipment Manufacturing” 45 and older workforce is 29% greater than that of the county as a whole (71% versus 42%). The supply chain of younger employees is smaller in all of the engineering and aerospace sector industries than in the full Cobb workforce; for example, only 23% of employees in the utilities sector are under the age of 35 whereas 35% of all workers in Cobb County are under the age of 35.

**FIGURE 2—Engineering and Aerospace Sector Age Structure** ■ <35 ■ 35-44 ■ 45-54 ■ 55+



Source: US Census Bureau LEHD Program, Carl Vinson Institute of Government

## HIGH DEMAND OCCUPATIONS IDENTIFIED

Representatives from the engineering and aerospace sector discussed some of the jobs for which they have the most difficulty hiring qualified workers (see Table 9).

**TABLE 9—Engineering and Aerospace Sector Identified High Demand Occupations**

Aerospace Engineers*	Manufacturing Services
Automation Engineers	Material Science Engineers
Chemical Engineers*	Mechanical Engineers*
Civil Engineers*	Mechanics
Construction Testing Technicians*	Scientists
Cyber Security Specialists	Software Engineers
Data Analysts	Special Inspection Technicians
Data Scientists*	System Engineers
Electrical Engineers*	Technicians
Industrial Engineers	Technologists

\*identified by more than one organization or company

## SKILLS AND ATTRIBUTES

Table 10 shows the skills and abilities that engineering and aerospace sector representatives indicated they look for in potential employees.

**TABLE 10—Engineering and Aerospace Desired Employee Skills and Attributes**

Accountability	Flexibility	Problem Solving
Analytical Chemistry	Knowledge of the Permitting and Regulatory Process	Public Speaking
AutoCAD	Logistics Management	Social Maturity
Business Acumen	Management of Software and Data	Supply Chain Management
Chemistry	Metallurgy	System Integration
Collaboration	MicroStation	The Sequence of Construction
Corrosion Analysis	Physics	Virtual Team
Data Analysis	Polymers	Writing

# 3

## HEADQUARTERS, INFORMATION TECHNOLOGY, AND FINANCE

### PARTICIPATING COMPANIES/ORGANIZATIONS

- Bank of North Georgia
- Genuine Parts Company\*
- Home Depot
- InfoSys
- Mauldin and Jenkins
- The Bottoms Group
- The Weather Company\*

*\*Companies unable to participate during the meeting but provided input through a phone interview*

## MEETING OVERVIEW

Human resource professionals, Internet technology (IT) recruiters, and CEOs gathered at Kennesaw State University on August 12, 2015 to talk about the diverse needs of companies headquartered in Cobb County, information technology firms, and finance firms. Companies expressed the difficulty of hiring talented workers with specialized skills and knowledge such as accountants, software engineers, project managers, and computer programmers. Many of the positions they highlighted require specialized skills in addition to a number of years of experience. One interesting discussion thread revolved around the desire to hire employees with four-year degrees and/or experience. While companies want to hire at the four-year level or candidates with specific experience, they are recognizing the need to be more flexible with educational and experience requirements as the strengthening labor market makes hiring more difficult.

## INDUSTRY OVERVIEW AND DATA

The headquarters, information technology, and finance sector is the largest sector examined during this project; it employs nearly 55,000 people in Cobb County. Table 11 provides details about this sector in Cobb County.

**TABLE 11**—Headquarters, Information Technology, and Finance Employment Data & Number of Establishments in Cobb County

Industry	Establishments	2014 Employment	2014 Average Wages per Employee
Broadcasting (Except Internet)	16	933	\$114,167
Credit Intermediation and Related Activities	510	7,055	\$63,985
Data Processing, Hosting and Related Services	55	726	\$137,858
Management of Companies and Enterprises	160	13,321	\$13,991
Professional, Scientific, and Technical Services	3,797	28,769	\$82,749
Telecommunications	127	3,955	\$79,814

Sources: Bureau of Labor Statistics QCEW

## OCCUPATIONS

The top five occupations by number of jobs in Cobb in this industry group are customer service representatives, accountants and auditors, lawyers, general and operations managers, and tellers. Tables 12 and 13 show the top 10 occupations in this sector that require a bachelor's degree or greater and the top 10 occupations that require less than a bachelor's degree, respectively, along with the most common educational requirement for the occupation and the median hourly wage.

- Changes in the IT market both in Georgia and around the United States are likely to exacerbate the difficulty of hiring (e.g., the opening of a major IT operations in Atlanta may reduce the available talent pool).
- The accounting profession is becoming heavily specialized, but programs have not adapted to the specialization (e.g., nonprofit accounting, governmental accounting, and healthcare accounting).
- Data analytics and data science are becoming important for companies in every industry and sector. This occupation was highlighted at numerous sector meetings.
- There is a need to cross-train students and expose them to different disciplines (e.g., a business student with a minor in computer science or a software engineering student with a minor in speech communication).
- The information technology talent pool (e.g., software engineering and computer programming) is shallow in Georgia. Several companies stated that they hire much of their talent from outside the state.
- There is a need to find and retain the experts at the four-year, two-year, and K–12 levels to teach the certificate, degree, and career and technical education courses. The programs are only as strong as the skills and experience of those who are teaching them.

**TABLE 12**—Top 10 Headquarters, IT, and Finance Sector Occupations in Cobb Requiring a Bachelor’s Degree or Greater

Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Accountants and Auditors	2,151	Bachelor's Degree	\$33.87
Lawyers	1,490	Doctoral Degree	\$58.93
Software Developers, Applications	1,386	Bachelor's Degree	\$44.44
Management Analysts	1,153	Bachelor's Degree	\$39.64
Sales Representatives, Services, All Other	1,126	Bachelor's Degree	\$25.14
Business Operations Specialists, All Other	971	Bachelor's Degree	\$32.16
Computer User Support Specialists	908	Bachelor's Degree	\$23.59
Financial Managers	890	Master's Degree	\$59.05
Market Research Analysts and Marketing Specialists	843	Bachelor's Degree	\$28.05
Software Developers, Systems Software	811	Bachelor's Degree	\$45.79

Sources: BLS OES Program, O\*Net

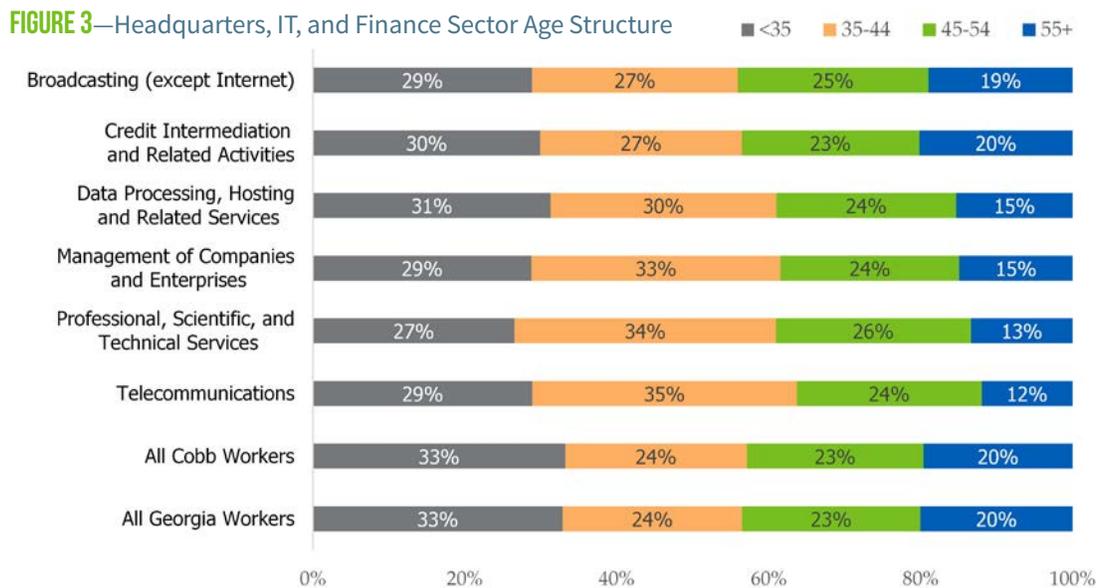
**TABLE 13**—Top 10 Headquarters, IT, and Finance Sector Occupations in Cobb Requiring Less Than a Bachelor’s Degree

Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Customer Service Representatives	2,247	High School Diploma	\$16.28
General and Operations Managers	1,462	Associate's Degree	\$49.56
Tellers	1,419	High School Diploma	\$13.86
Office Clerks, General	1,399	High School Diploma	\$13.03
Bookkeeping, Accounting, and Auditing Clerks	1,382	High School Diploma	\$17.93
Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	1,285	High School Diploma	\$16.61
First-Line Supervisors of Office and Administrative Support Workers	1,190	High School Diploma	\$25.51
Computer Systems Analysts	1,147	Associate's Degree	\$35.18
Telecommunications Equipment Installers and Repairers, Except Line Installers	756	Postsecondary Certificate	\$26.08
Executive Secretaries and Executive Administrative Assistants	686	Some College Courses	\$24.14

Sources: BLS OES Program, O\*Net

## AGE STRUCTURE

The headquarters, IT, and finance sector age structure is different from that of the other industry sectors examined in this project as it is composed of younger employees, on average. Figure 3 shows the age structure for this industry sector. The workforce of no industry in this sector is older on average than that of the overall Cobb County or state labor force, and there are many more midcareer professionals in this industry sector compared to Cobb workers overall. For example, 35% of the telecommunications workforce in Cobb is between the ages of 35 and 44, while only 24% of the entire Cobb workforce is made up of midcareer professionals. Interestingly, although this sector is typically associated with a young talent pool (e.g., computer programmers, application developers), the data do not show that to be the case for Cobb.



Source: US Census Bureau LEHD Program, Carl Vinson Institute of Government

## HIGH DEMAND OCCUPATIONS IDENTIFIED

Table 14 lists some of the most difficult jobs to fill, according to headquarters, IT, and finance sector representatives.

**TABLE 14**—Headquarters, IT, and Finance Sector, Identified High Demand Occupations

Application Developers	Practice Leads—Analytics Delivery
Business Development Managers	Process Specialists
Consultants	Project Managers
Cyber Security Specialists*	Senior Software Developers
Engagement Managers	Software Engineers
Entry-Level Accountants	Supply Chain Managers
Information Technology Specialists	Technical Talent Leads
Lead Software Developers	Technology Analysts
Logistics Management Professionals	Technology Architect

\*identified by more than one organization or company

## SKILLS AND ATTRIBUTES

Table 15 shows the skills and abilities that sector representatives said they look for in potential employees.

**TABLE 15**—Headquarters, IT, and Finance Sector Skills & Attributes

Ability to be Coached	Critical Thinking	Knowledge of the Full Lifecycle of Software Development
Ability to Explain Complex Issues	Customer Service	Mobility
Application Development	Employees Willing to Put Down Roots	Passion for Coding and Development
Business Process Management	Entrepreneurial	Results Focused
Collaboration	Financial Concepts	Risk Taking
Communication	Flexibility	Sales Background
Competitive Edge	Future Leadership Potential	Soft Skills
Consultancy Experience	Global Competitiveness	Technical Savvy

Employers also identified certain technical skills that they are looking for in job candidates (see Table 16).

**TABLE 16**—Headquarters, IT, and Finance Sector Desired Computer and Programming Skills

Adobe	E-Commerce	Microsoft Excel
Android	Hadoop	Oracle
Application Development	Hybris	SAP
Big Data	iOS	Scalla
C#	Java	Tibco
Cloud Computing	JDE World	Data Analytics



# 4

## HEALTHCARE AND BIOSCIENCE

### PARTICIPATING COMPANIES/ORGANIZATIONS

- Children's Healthcare of Atlanta
- Kaiser Permanente
- WellStar Health System
- UCB

WORKFORCE PARTNERSHIP

# THEMES

## MEETING OVERVIEW

Representatives from the healthcare and bioscience industry sector gathered at Kennesaw State University on August 12, 2015 to discuss their workforce challenges and occupational needs. Representatives indicated numerous hard-to-fill positions. Discussion centered on the specialized training required for many positions, the desire for on-the-job experience, and the importance of proper attitudes among job seekers. Industry representatives expressed a high level of interest in partnering with educational institutions to address the workforce supply shortages in the county.

## INDUSTRY OVERVIEW AND DATA

The healthcare and bioscience sector employs more than 30,000 people in Cobb County. Table 17 shows the types of positions, the number of employees in Cobb, and average wages for workers in the healthcare and bioscience sector.

**TABLE 17**—Healthcare and Bioscience Sector Employment Data & Number of Establishments in Cobb County

Industry	Establishments	2014 Employment	2014 Average Wages per Employee
Ambulatory Healthcare Services	1,458	16,840	\$63,618
Chemical Manufacturing*	51	1,062	\$69,596
Hospitals	16	8,832	\$53,387
Miscellaneous Manufacturing*	63	512	\$39,617
Nursing and Residential Care Facilities	77	3,078	\$28,277
Scientific Research and Development Services	37	795	N/A

\*Portions of these industries are related to bioscience

Source: Bureau of Labor Statistics QCEW

## OCCUPATIONS

The top five occupations based on the number of workers in this industry group in Cobb County are registered nurses, nursing assistants, medical assistants, home health aides, and personal care aides. Tables 18 and 19 show the top 10 occupations that require a bachelor's degree or greater in this sector and the top 10 occupations that require less than a bachelor's degree, respectively, along with the most common educational requirement for the occupation and the median hourly wage.

*Appendix B provides a forecast by the Georgia Department of Labor of the jobs projected to be in high demand. Six of the top 15 jobs are in the healthcare industries, with physician's assistant, physical therapists, health educators, and mental health counselors projected to be the jobs that will grow the most over the next 10 years.*

- A major transformation is occurring in healthcare due to the Affordable Care Act and advances in technology.
- The delivery of healthcare is changing.
- There is a great need to expose students, teachers, and parents to the careers and opportunities available within this sector.
- There is a career for everyone within healthcare (from the high school graduate, to technical college students and those with advanced degrees).
- Many of the healthcare and bioscience positions require specialized experience; the appropriate training, certificate, or degree is not enough.
- The retirement wave in healthcare careers (especially nursing) is hitting now.
- Companies are looking for the appropriate certificates or licenses, but they are also focusing on hiring employees with the right attitudes, and they can use training to close gaps.

**TABLE 18**—Top 10 Healthcare and Bioscience Sector Occupations in Cobb Requiring a Bachelor’s Degree or Greater

Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Physicians and Surgeons, All Other	567	Doctoral Degree	>\$90
Medical and Health Services Managers	454	Bachelor's Degree	\$45.39
Physical Therapists	387	Master's Degree	\$38.55
Medical and Clinical Laboratory Technicians	288	Bachelor's Degree	\$16.99
Medical and Clinical Laboratory Technologists	275	Bachelor's Degree	\$29.06
Family and General Practitioners	270	Doctoral Degree	>\$90
Nurse Practitioners	245	Master's Degree	\$42.34
Dentists, General	240	Doctoral Degree	\$89.57
Physician Assistants	190	Master's Degree	\$45.55
Healthcare Social Workers	178	Master's Degree	\$22.83

Sources: BLS OES Program, O\*Net

**TABLE 19**—Top 10 Healthcare and Bioscience Sector Occupations in Cobb Requiring Less Than a Bachelor’s Degree

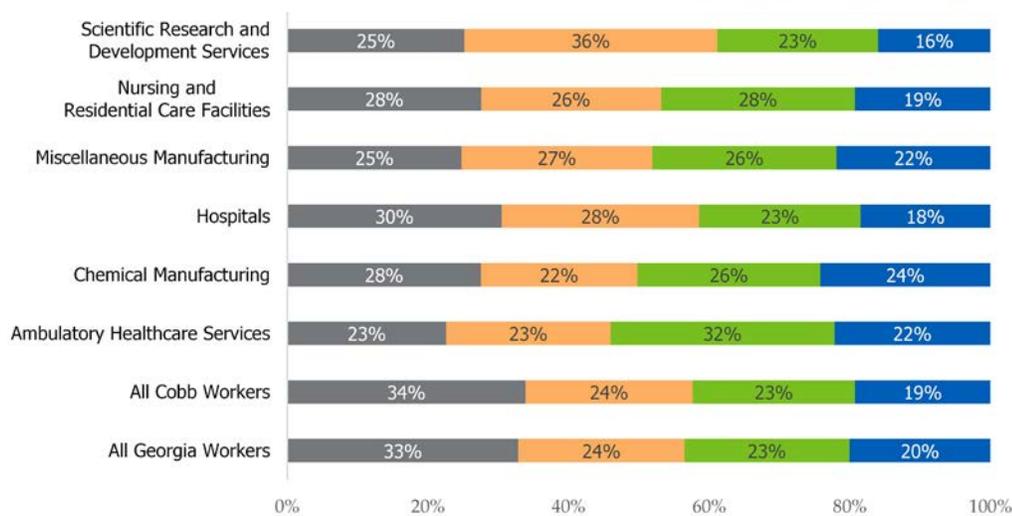
Occupation Title	2014 Estimated Jobs	Educational Requirement	Median Hourly Wage
Registered Nurses	3,978	Associate's Degree	\$31.79
Nursing Assistants	1,623	High School Diploma	\$10.87
Medical Assistants	1,316	Postsecondary Certificate	\$14.14
Home Health Aides	1,154	High School Diploma	\$9.11
Personal Care Aides	1,098	High School Diploma	\$9.72
Medical Secretaries	1,092	Some College Courses	\$15.92
Receptionists and Information Clerks	1,028	High School Diploma	\$13.37
Licensed Practical/Licensed Vocational Nurses	942	Postsecondary Certificate	\$19.23
Dental Assistants	763	Postsecondary Certificate	\$17.02
Office Clerks, General	691	High School Diploma	\$13.03

Sources: BLS OES Program, O\*Net

## AGE STRUCTURE

The healthcare and bioscience sector age structure (Figure 4) demonstrates a high level of age variability among the various industries. The workers in some industries such as ambulatory healthcare services are, on average, substantially older than the general Cobb County workforce. The workers in other industries such as hospitals are, on average, younger than the average worker in the general Cobb County labor force. Due to the variety of occupations that make up these industries, a complete understanding of the workforce issues faced by companies in this sector may be difficult to grasp. For example, the nurses in Cobb hospitals may be, on average, older than the general workforce, but the rest of the sector workers could be, on average, young.

**FIGURE 4**—Healthcare and Bioscience Sector Age Structure



Source: US Census Bureau LEHD Program, Carl Vinson Institute of Government

## HIGH DEMAND OCCUPATIONS IDENTIFIED

Table 20 shows the occupations that sector representatives indicated were the hardest to fill in Cobb County.

**TABLE 20**—Healthcare and Bioscience Sector Identified High Demand Occupations

Bioscience Research and Development	Pediatric Specialty Nurses
Call Center Representatives	Physicians
Information Technology*	Registered Nurses* (especially those with a Bachelor's of Science in Nursing)
Manufacturing Technicians	Regulatory Affairs Specialists
Marketing Professionals	Respiratory Therapists
Medical Coding Professionals*	Salespersons
Medical Technologists*	

\*identified by more than one organization or company

## SKILLS AND ATTRIBUTES

Sector representatives highlighted the skills and abilities they look for in potential employees (see Table 21).

**TABLE 21**—Healthcare and Bioscience Sector Skills and Attributes

Ability to Work in Ambiguity	Efficient	Motivated
Analytics	Electronic Medical Records	Network Security
Assertiveness	Engineering	Organic Chemistry
Biology	Flexibility	Presentation Skills
Business Acumen	ICD-10 (Medical Coding)	Proactive
Chemistry	Information Security	Problem Solving
Clinical and Healthcare Experience	Innovative	Right Attitude
Communication	Leadership	Sense of Pride
Compassionate	Logic	Statistics
Detail Oriented	Math	Teamwork
Dynamic and Predictive Modeling	Mission Focused	Writing

# 5

## SMALL BUSINESS

### PARTICIPATING COMPANIES/ORGANIZATIONS

- Georgia Business Success Center
- University of Georgia Small Business Development Center\*
- LOUD Security
- Sundial Plumbing

*\*Was unable to participate in the meeting but provided input to the project team*



# THEMES

- The workforce needs of small business owners and entrepreneurs are as diverse as the variety of industries in which they are involved.
- Most small business owners are hiring as they need employees and are not forecasting or conducting any workforce planning.
- Marketing and social media are important for small businesses, but sometimes small businesses are hesitant to invest in this skillset.
- The skills and attributes identified by small business owners such as soft skills, basic foundational skills, and customer service were similar to those identified at every other project meeting.

## MEETING OVERVIEW

Cobb small business leaders gathered at the Cobb Chamber of Commerce on September 2, 2015 to discuss their workforce challenges and occupational needs. This final meeting focused on firm size instead of specific sectors. The session revealed that each small business is unique and that each has its own diverse human capital needs. One interesting point that several small business owners made was that people who choose to work for small businesses learn a lot of skills quickly and are given the chance to be involved in many different business functions and tasks.



*LOUD Security presenting to the steering committee*

## INDUSTRY OVERVIEW AND DATA

Small businesses (defined as firms with less than 50 employees) and entrepreneurs employ nearly one out of every four Cobb County workers. The percentage of total Cobb County employment made up of small businesses varies by sector; for example, in the construction sector, 39% of county employment is in small businesses, while small business firms only comprise 2% of the Headquarters sector employment.

**TABLE 22**—Top 5 Industry Sectors by Small Business Employment

Industry	Establishments	2014 Employment	2014 Average Wages per Employee
Accommodation and Food Service	10,832	34%	\$1,235
Construction	8,514	39%	\$4,193
Healthcare and Social Assistance	8,805	27%	\$3,209
Professional, Scientific, and Technical Services	10,060	31%	\$5,123
Wholesale Trade	6,391	22%	\$5,299

Source: US Census Bureau, LEHD Program, 2014 Q3

Notes: “Small business” is defined as firms with less than 50 employees. The 2014 average monthly earnings is an average of wages for firms with 0–19 employees and firms with 20–49 employees.

# NEXT STEPS

This report documents the needs and trends of Cobb County's workforce climate using available data, and it then outlines a road map for meeting those needs. The evidence presented in this report indicates a growing need for partnership and collaboration across the entire Cobb community, bringing stakeholders together for a united investment in Cobb's future workforce. The next step is to develop a framework through which universal and cross-cutting workforce needs can be addressed by top-level decision makers across education and industry, while industry-specific and localized needs are addressed by those most familiar with the details of each particular sector.



## ORGANIZING FOR SUCCESS

The proposed organizational framework illustrated in Figure 5 provides for open and efficient dialogue between education, industry, and community leaders to tackle both cross-cutting and localized challenges.

As demonstrated, each Sector Partnership is composed of business leaders from a particular industry sector alongside the educators charged with skills instruction for that same sector. These partnerships allow industry to be involved in curriculum development for career pathways, internship opportunities, instructor education, and other ways of closing the skills gaps within that particular area of interest. Each Sector Partnership is assembled and led by an industry leader who serves as Sector Chair (or Co-Chairs) and also is a member of the Steering Committee.

The Steering Committee is made up of top-level leaders from the top enrolling educational institutions in Cobb, alongside workforce providers, subject matter experts, and community leaders engaged in workforce development.

### THE STEERING COMMITTEE HAS FOUR PRIMARY ROLES:

- 1. TO DEFINE AND MANAGE:** To define and manage the measures of success for the program
- 2. TO SUPPORT AND OVERSEE:** To support and oversee the progress of each Sector Partnership according to those measures
- 3. TO DEVELOP AND MAINTAIN:** To develop and maintain a constant flow of communication between education, industry, and the community at large
- 4. TO WORK ON INITIATIVES:** To work on initiatives that cut across the sector partnerships such as developing and implementing a plan for a world-class college and career academy and a coordinated workforce development and career pathway marketing plan

The committee will also include a designated Chairperson and Facilitator to carry out the work of the group.

The partnership will have an external advisory committee that will meet at least annually to review the performance of the project, provide advice on strategic opportunities and issues, ensure alignment with state and regional efforts, review the strategic plan and goals, and provide external oversight to ensure continued success. The advisory committee will be made up of workforce development, educational, and economic development leaders from across the state.

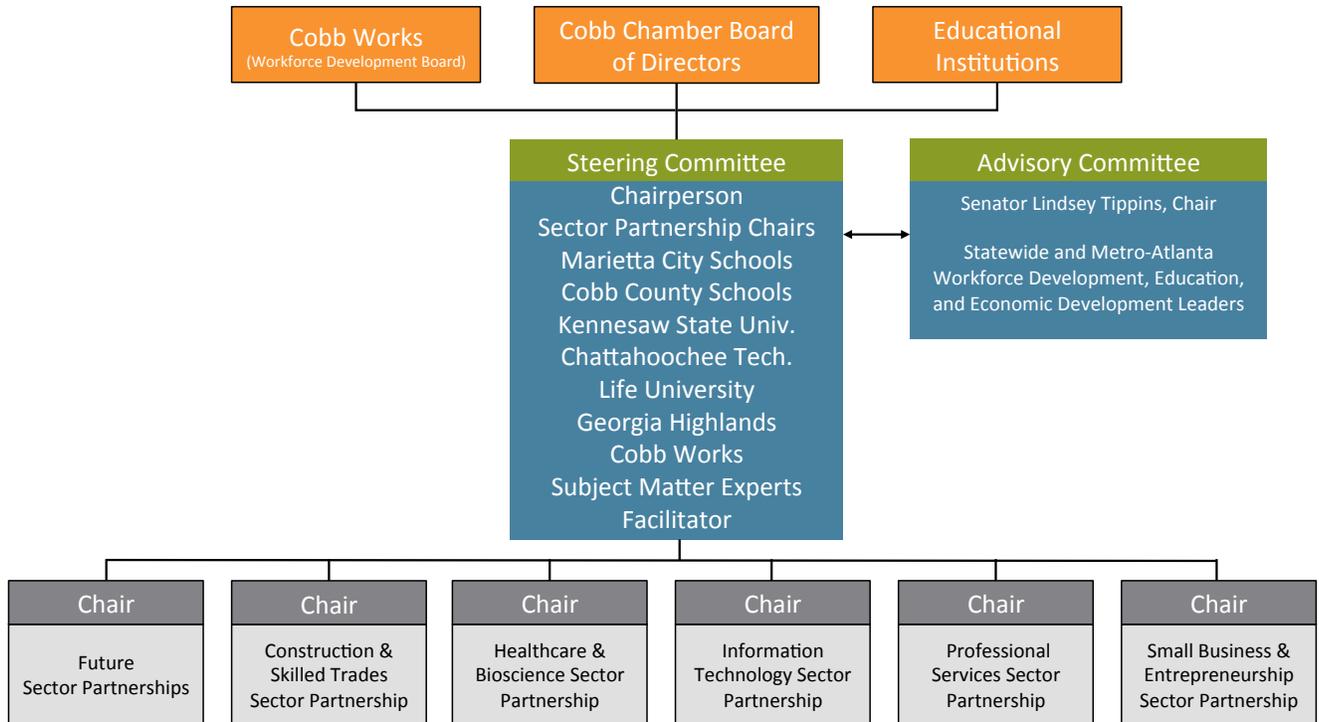
## PROGRAM EXPANSION

At the initial stages of this program, Sector Partnerships will be established for a few target industry sectors based on urgent need, high demand, and level of interest; these targeted industries sectors were identified as Construction and Skilled Trades, Healthcare and Bioscience, Information Technology, Professional Services, and Small



Business and Entrepreneurship. As the program takes shape and demonstrates evidence of success and viability, the Steering Committee intends to add as many Sector Partnerships as the Steering Committee sees fit. The long-term vision is that every industry sector in Cobb will see the value of developing a Sector Partnership to invest in the education and training of their future workforce, and a clear process for doing so will be defined once the program is prepared to grow. Other potential sector partnerships include but are not limited to hospitality and entertainment, engineering and aerospace, advanced manufacturing, and transportation and logistics.

**FIGURE 5**—Proposed Cobb Workforce Partnership Organizational Structure<sup>a</sup>



<sup>a</sup>The proposed sector partnerships will be implemented in a phased approach. Future sector partnerships will be added, as deemed necessary by the steering committee.



Members of the steering committee at F&P Georgia in Rome, Georgia

## WHAT DO SECTOR PARTNERSHIPS DO?<sup>2</sup>

### 1. ANALYZE AND WORK:

Analyze and work to meet their industry's current and future skills and training needs in the local area and identify occupations with skills and training gaps

### 2. DEVELOP A PLAN:

Develop a plan to close the skills and training gaps in their industry

### 3. CREATE AND TRACK:

Create and track metrics related to project and sector goals and vision

### 4. ASSIST:

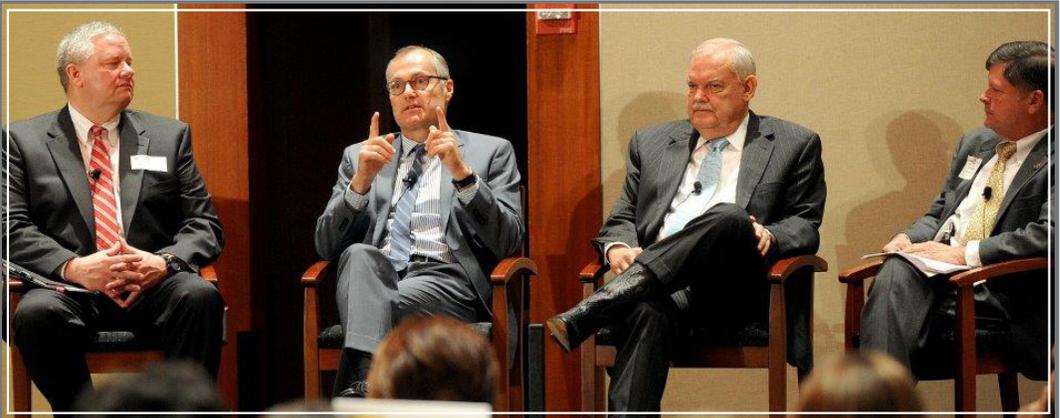
Assist in the implementation of the plan by carrying out activities such as

- a. Identifying common skill standards and promoting industry-recognized credentials
- b. Building career pathways to skilled jobs in the industry
- c. Creating or informing training programs, K-12 curricula, and postsecondary courses
- d. Identifying and creating internship opportunities for K-12 and postsecondary students
- e. Serving in a partnership role to develop and implement a college and career academy
- f. Recruiting peers to join the sector partnership and take a leadership role in influencing their industry's workforce pipeline

<sup>2</sup>Adapted from the National Skills Coalition, "Skills in the States: Sector Partnership Policy."

## CONCLUSION

The Cobb Chamber of Commerce hosted a panel discussion in July 2015 on dual enrollment and preparing students for the workforce with Technical College System of Georgia Deputy Commissioner Matt Arthur, Lieutenant Governor Casey Cagle, State Senator Lindsey Tippins, and Cobb Chamber President and CEO David Connell



This report summarizes the shared perspectives of both industry leaders and educators regarding Cobb County's workforce needs and existing resources. While many opportunities emerged from these dialogues around developing and strengthening partnerships between industry and education, two key priorities rose to the forefront. Of all the project findings, these were identified as the most urgent needs by the greatest number of participants in the project.

### COLLEGE & CAREER ACADEMY

First is the unified call for a state-of-the-art college and career academy that formalizes these partnerships and equips students with the skills and experience that the local business community needs most. The findings of this report call for the academy to be STEM-focused and aligned with both technical and vocational career paths as well as those of two- and four-year universities.

### COMMUNITY AWARENESS

A second priority is the need to better communicate the resources and career pathway programs available in Cobb County and Marietta City Schools to both parents and students. While a central college and career academy is a high priority, its success will depend on the community's awareness of the opportunities and pathways that exist within its walls. In addition, many resources already exist to help students connect with career paths sooner, and they simply need to be better communicated or supported within the community. Appendix A highlights some of the successful career pathways in K-12 institutions and other successful workforce partnerships.

### THESE PRIORITIES, AS WELL AS THE MANY OTHERS FOUND THROUGHOUT THIS REPORT, ARE THE CHARGE OF THE COBB WORKFORCE PARTNERSHIP.

The topics discussed at the industry-specific level are best addressed by Sector Partnerships, which bring together the business leaders and educators engaged in those localized areas. However, needs as inclusive and fundamental as a college and career academy and clearly communicated career pathways depend on the leadership of the Steering Committee and the support of every Sector Partnership within the program. It is only with the clear vision and collaborative approach offered by the Cobb Workforce Partnership that we can create innovative solutions for the most challenging workforce needs.





Board

Names



# APPENDIX A

## COBB COUNTY SUCCESS STORIES

Although the Cobb Workforce Partnership project showed that there is more work to be done in Cobb County, it is important to note that the county already has many effective programs and a world-class workforce. The appendix provides just a few of the examples of effective programs and policies that are already in place in Cobb.

### COBB COUNTY SCHOOLS

Cobb County School District (CCSD) has several programs that provide students with unique experiences and prepare them for the workforce or further studies including STEM certified programs, specialized magnet schools and academies, and career and technical and agricultural education (CTAE). Figure A.1 shows the various magnet schools and academies in Cobb County High Schools. CCSD has a robust CTAE program in every high school. Figure A.2 shows the CTAE clusters at each Cobb County School District high school. There are a total of 124 total individual career pathway programs at Cobb County School District high schools. Cobb County CTAE teachers and students indicated that these programs teach them soft skills like public speaking, time management, collaboration, and leadership. One CTAE teacher noted that “our programs could not succeed if it wasn’t for the academics. The kids that come into our programs are expected to be able to read, write, and do the math. We help them apply their knowledge in real ways.”

FIGURE A.1—Cobb County High School Academies and Magnets Schools

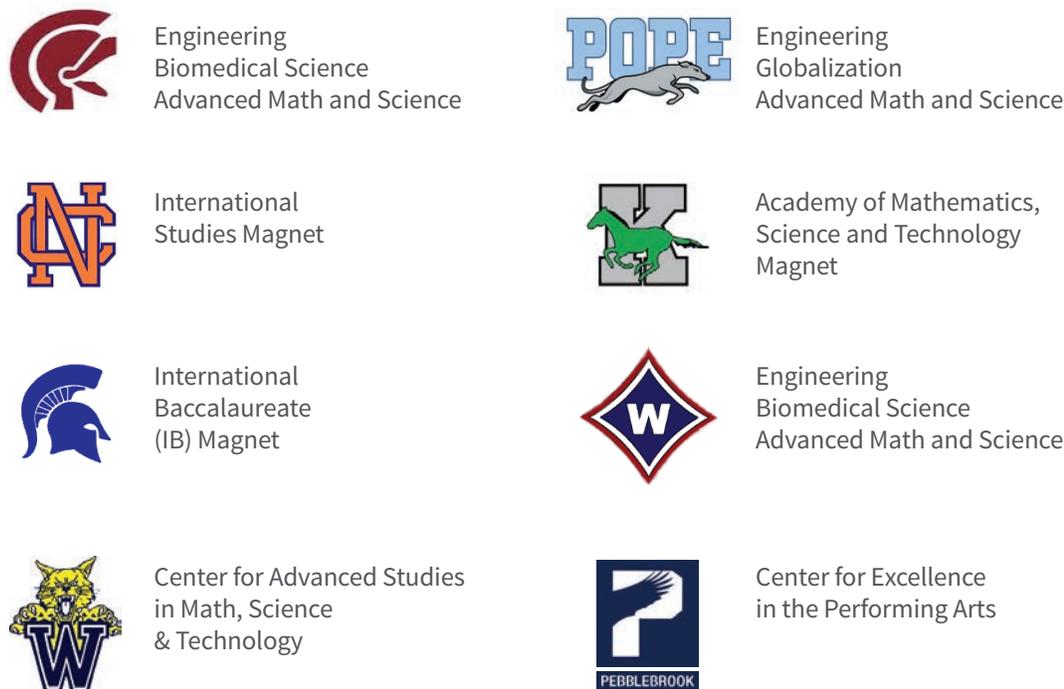
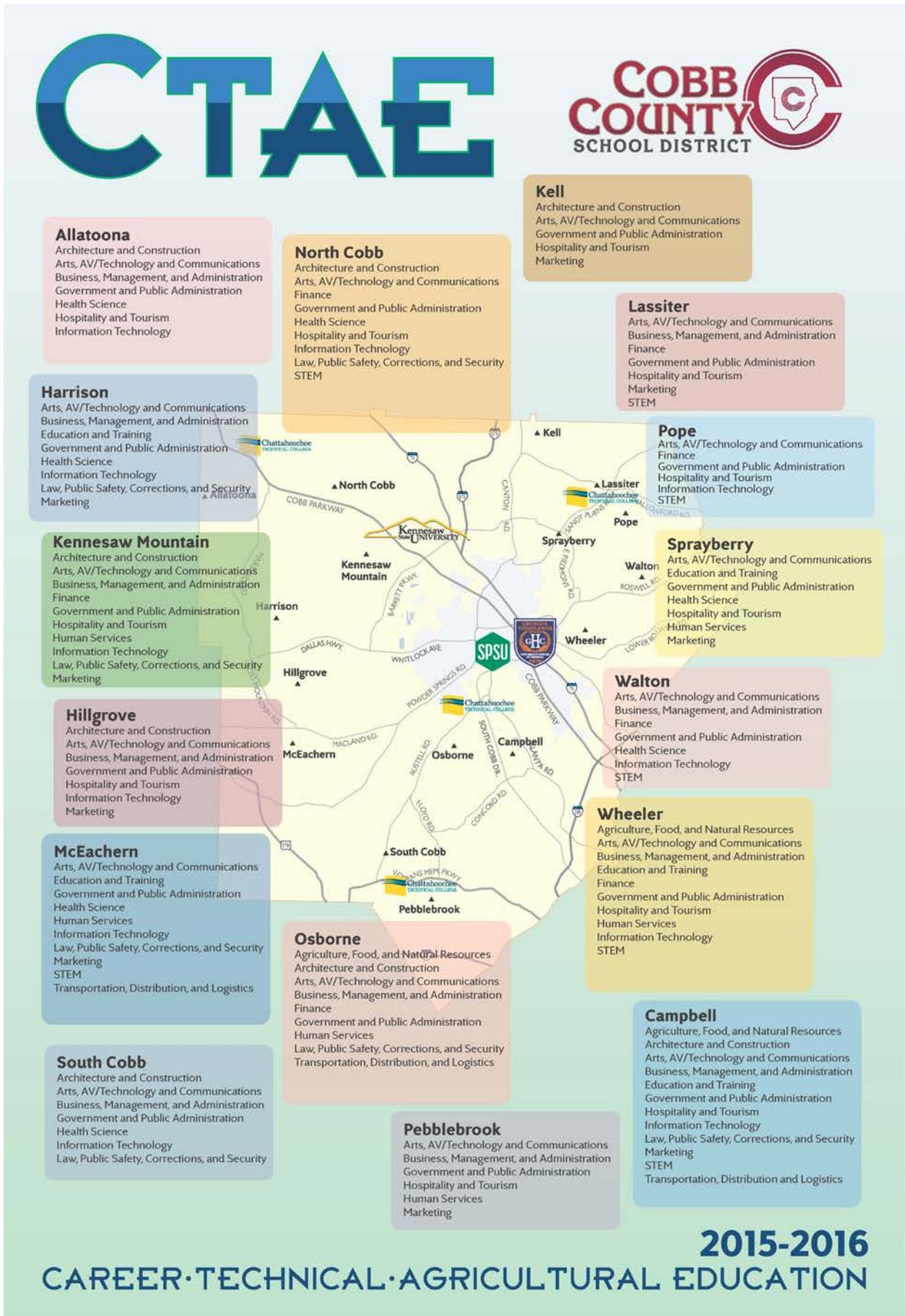


FIGURE A.2—Cobb County School CTAE Clusters





*A North Cobb High School Broadcast Video Production student edits a project*

### **MANUFACTURING AWARENESS DAY:**

Cobb County Schools worked with a local precision machine shop, Win-Tech, to host a manufacturing awareness day. More than 150 students from Kennesaw Mountain High School and Pine Mountain Middle School learned about career opportunities in manufacturing. Students also learned about STEM and robotics, met with employees, received a facility tour, and learned about various machines and jobs. Cobb County Schools partnered with Chattahoochee Technical College and Georgia Tech to educate students about postsecondary options related to manufacturing and STEM.

### **INCOME TAX PREPARATION:**

Students at Osborne High School provide tax preparation services to area residents through the IRS's Volunteer Income Tax Assistance (VITA) program. Each spring, students in the business procedures course learn about tax principles, office management, and personal finance as well as the soft skills required to succeed in the workplace. Around 20–25 students take part in the class each year, and several students pass the IRS test to prepare returns. Each year the students prepare approximately 250 returns for people who generally make less than \$53,000, persons with disabilities, taxpayers with limited English-speaking ability, and the elderly. This program is the only high school VITA site in Georgia.



*Cobb County School District students tour Win-Tech as part of National Manufacturing Day (Photo Credit: Win-Tech)*



*North Cobb High School construction students learn how to install a toilet*

## CHATTAHOOCHEE TECHNICAL COLLEGE

### WOOD FLOORING TRAINING PROGRAM:

Chattahoochee Technical College has teamed up with the National Wood Flooring Association (NWFA) to address the need for trained flooring techs in the area. NWFA is a not-for-profit trade association representing all segments of the hardwood flooring industry, including manufacturers, distributors, retailers, installers, inspectors, and consultants. This program is now in its second session, and students are receiving training in the flooring industry as well as OSHA and leadership instruction. Materials for the program are donated by area hardwood suppliers and vendors.

### STERILE PROCESSING TRAINING:

Chattahoochee Technical College Continuing Education and Academic Affairs Units partnered with WellStar to offer the college's Central Sterile Processing program to WellStar employees and Cobb Works clients. Sterile processing is paramount to safety in today's hospitals and medical facilities and is needed in all aspects of the medical profession.

### AUTOMOTIVE EDUCATION PARTNERSHIP:

Chattahoochee Technical College has been working with BMW to prepare automotive graduates for the BMW Service Technician Education Program (STEP). BMW STEP has been and remains the most comprehensive BMW technician development program for the BMW Group. Funded by BMW of North America, LLC, the program chooses the finest talent from select automotive schools and colleges across the country. Since its inception in 1996, the program has produced more than 3,000 STEP high-level graduates, most of whom are still working at dealerships today. Four CTC graduates have been accepted into STEP. In addition, BMW has donated several items this year to help students prepare for a career in automotive maintenance.

## GEORGIA HIGHLANDS COLLEGE

### PRE-ENGINEERING ASSOCIATE'S DEGREE:

Georgia Highlands College's Marietta Campus launched a new pre-engineering associate's degree program this fall. The program is designed to provide students with the foundational courses they need to pursue an engineering degree at Kennesaw State University, Georgia Tech, and other institutions. Students will complete many of the required core courses and specialized courses like principles of physics, principles of chemistry, and calculus.

### MENTORING LATINO HIGH SCHOOL STUDENTS:

The Georgia Highlands College student organization, La Mano, recently participated in the HoPe (Hispanic Organization Promoting Education) Leadership Conference in Marietta. At the event, La Mano members worked with Latino high school students by hosting educational workshops and a college fair. Marietta Student Life Coordinator Abraham Ortiz said it was a great way for college students to stress the importance of finishing high school, attending college, and completing a four-year degree to the Latino community. La Mano is a student organization at Georgia Highlands College that seeks to help Latino college students' progress through school, while encouraging them to continue their education by offering an opportunity to participate in cultural and academic activities, all while achieving academic success.

## MARIETTA HIGH SCHOOL CAREER PATHWAYS

Marietta High School provides 19 unique pathways for its students. The school features a complete commercial kitchen, a broadcast video production facility, a pre-engineering laboratory, healthcare treatment facilities, and many other spaces and equipment dedicated to exposing students to various careers.

### RESULTS



35% of the class of 2015 completed a career pathway (a series of three related career-field courses)



28% of the class of 2015 earned a national credential during their high school career

### PARTNERSHIPS

In addition to the pre-engineering program highlighted on page 48, Marietta City Schools has numerous partnerships and success stories:

- The culinary arts pathway partners with the Rotary Club of Marietta. Students cook meals approximately twice a month for the Extension, which is a homeless men's shelter and treatment center for men with substance abuse problems. The meals are delivered to the center and served by Rotarians and culinary students.

- The law enforcement services/forensic science pathway partners with the Marietta Police Department (MPD) to provide security for local events (such as football games) and to direct traffic. The MPD is also helpful in creating demonstrations of accidents and crime scenes so that students can apply the skills they have learned in this program.
- The early childhood care and education pathway partners with Headstart and two local elementary schools. Students go to these schools during class several times a month to apply skills learned in the pathway.



*Marietta High School CTAE Students in the culinary arts and therapeutic services programs*



## CAREER PATHWAYS AVAILABLE AT MARIETTA HIGH SCHOOL

- Aerospace Science/Leadership Ed. (JROTC—Air Force)
- Audio-Video Technology & Film (AVTF)
- Business Accounting
- Business & Technology
- Culinary Arts
- Early Childhood Care & Education
- Emergency Medical Responder
- Firefighting
- Food & Nutrition
- Graphic Communication (Production)
- Graphic Design
- Law Enforcement Services
- Marketing Communications & Promotions
- Pre-Architecture (Architectural Drawing and Design)
- Pre-Engineering
- Programming
- Therapeutic Services— Allied Health and Medicine
- Therapeutic Services—Sports Medicine
- Web & Digital Design

# HOW CAN INDUSTRY SUPPORT HIGH SCHOOL CTAE PROGRAMS?

1. Serve on an advisory board
2. Speak to a CTAE class
3. Sponsor a student organization (e.g., SkillsUSA, Future Business Leaders of America) by providing for conference or event transportation costs or student registration fees
4. Donate equipment
5. Provide jobs and internships so students can receive on-the-job experience
6. Host a teacher for a day, a week, or a summer externship that allows the educator to learn more about your industry
7. Provide case studies and challenges to various grade levels and programs

COBB COUNTY SCHOOLS CTAE DIRECTOR  
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MARIETTA CITY SCHOOLS CTAE DIRECTOR  
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## KENNESAW STATE UNIVERSITY

### DOCTORATE IN ANALYTICS AND DATA SCIENCE:

On February 11, 2015, the Board of Regents of the University System of Georgia approved a new doctorate program for Kennesaw State University in analytics and data science. The program launched in the fall of 2015, and the rigorous coursework prepares students to work either in the private sector as analysts for corporations or in academia as future professors. From the beginning, this program was cultivated to maximize its contribution to closing the talent gap locally and regionally for data scientists. Notably, the program was designed in collaboration with many Atlanta area community and industry partners. Students in the program will receive one-year internships from industry partners that will be focused on industry-centric research projects to develop new solutions to real-world data-driven challenges.

### BIRLA CARBON SCHOLARS:

Birla Carbon, the world's largest manufacturer and supplier of carbon black, has partnered with the College of Science and Mathematics at Kennesaw State to launch the Birla Carbon Scholars Program. This undergraduate student research initiative funds 10 research projects annually and enables hands-on mentoring between students and laboratory leaders at Birla Carbon. The research projects are completed during the summer semester, presented in an end-of-term symposium, and reviewed by Birla Carbon scientists.

### GAVE (GEORGIA ADVANCING VETERANS EDUCATION):

The GAVE initiative is a structured series of programs designed to provide military veterans in Georgia with the opportunity to increase their knowledge of business, develop entrepreneurial and sales skills, and assist them in pursuing their dreams. The programs are offered at no cost to participants and include materials, instruction, hotel accommodations, and meals.

## LIFE UNIVERSITY

### MENTORING FOR LEADERSHIP:

Life University is a full partner with the Mentoring for Leadership group and brings the program's Marietta School District students to campus a few times a month to provide mentoring support and to educate them on various career opportunities that exist and the education pathways to get there.

### HEALTHY LIFESTYLE EDUCATION:

Life University partners with the Cobb YMCA to provide information to members and the local community about healthy lifestyle habits.

### VITALISTIC HEALTH CAREERS:

Life University partners with professional health associations in six states to recruit and mentor students interested in vitalistic health careers.

## COBBWORKS

### CAREER ASSISTANCE:

CobbWorks, Inc. provided career advisement, job search assistance, and training services to more than 2,200 Cobb residents during its 2014 program year.

### BUILD COBB PARTNERSHIP:

In 2015, CobbWorks launched the “Build Cobb Partnership” to help address the demand for skilled construction workers in the county. A partnership with the Construction Education Foundation of Georgia, The Collective at Cumberland Community Church, and training provider HB Next, the initiative will train, credential, and place 100 new workers during its first year.



*Build Cobb Partnership program participants work on a group project*

### RECRUITMENT ASSISTANCE:

CobbWorks provides start-up and ongoing candidate recruitment assistance to companies doing business in Cobb County. From disseminating job postings through its network and sponsoring onsite job fairs to helping develop a custom recruitment plan, CobbWorks has assisted local companies such as Andretti Motor Speedway, Vonage, Comcast, CVS, and AquaGuard.



*CobbWorks hosted its 13th annual Marietta/Cobb Career Expo with more than 40 employers present*

## FOCUS ON MARIETTA CITY SCHOOLS

### HELP FOR HAITI

Reprinted with permission | Marietta Daily Journal, February 21, 2015

## COBB & STATE

SATURDAY, February 21, 2015 ♦ Jon Gillooly/ jglllooly@mdjonline.com ♦ MDJ



CRIME: MAN ARRESTED ON HEROIN TRAFFICKING CHARGE > 2B

CRIME: AUSTELL MAN DIES OF GUNSHOT WOUND > 2B

### MARIETTA HIGH | EDUCATION



Marietta High School Pre-Engineering Teacher Leon Grant confers with senior Amulya Bajracharya on his progress involving a project in which students are developing a test site for a container-building project in partnership with the Haiti Reclamation and Restoration Project in Plaine de l'Abre. / Staff-Kelly J. Huff

# Help for Haiti

## Students aim to build a community center using shipping containers in 3-year project

By Philip Clements  
pclements@mdjonline.com

**MARIETTA** — Students at Marietta High School are working on a three-year project to construct a self-sustainable community center in Haiti made out of shipping containers.

Leon Grant, a pre-engineering and pre-architecture teacher, is overseeing the project. Amulya Bajracharya, an 18-year-old senior, is the project manager and has been Grant's student for two years.

"We have already secured a plot of land near Plaine de l'Arbre (in northwest Haiti)

where we have about 100 acres to work with," Bajracharya said. "We're going to recreate the actual living conditions and create a design around the conditions of Haiti so we can transfer the building and design over."

As project manager, Bajracharya is in charge of creating and maintaining the work schedule and keeping track of everyone's progress. He said each student is asked to contribute five hours a week to the project and mentors are asked to contribute at least an hour to keep the project moving forward. "The students really have to be

interactive with this because it's a huge project," Bajracharya said.

Grant said the students are in the first year of the project.

"Between now and the end of the year, we're doing all of the design work," Grant said. "So, we're designing the containers, we're designing the communication system — which is a satellite Internet phone system — and we're designing the solar (energy) system."

He said by the end of the year, the students will have to produce three models: a cost model, a virtual model that would allow

HAITI, 5B



Marietta High School Pre-Engineering Teacher Leon Grant plans to pair the students with local professionals in the county to develop real hands on learning and helping the people of Plaine de l'Abre, Haiti, in the process. / **Staff-Kelly J. Huff**

people to do a virtual walk-through and a physical, scale model of the site.

The building will be constructed out of seven shipping containers, Grant said.

“Because Haiti is more of an importer than an exporter, there should be lots of those around,” he added.

He said the goal of the project is to provide a solution to many of the issues that are prevalent in Haiti, such as the lack of electricity, minimal water sanitation, poor schooling, nutritional deficiencies and medical issues.

“What we have done is kind of look at some solutions,” he said.

For instance, Grant said they will be designing and constructing green energy solutions to provide electricity and creating a water collection and purification system to provide clean water.

“They’ve had over 8,000 people die from cholera just since the earthquake (in 2010),” Grant said.

Four shipping containers will be classrooms with an extended roof to provide more room outside of the building for students. One shipping container will be used for a clinic, one will be an office and one will be used for a restroom, Grant said.

The building will be in a U shape and there will be an open space in the middle with an arched, fabric roof that can be used as a community space, Grant said. He added the roof will be used to collect rainwater.

Grant said almost every student he teaches — which includes all four grade levels at the high school — is involved in some portion of the project.

He said he has put out several challenges to his students to design various parts of the project, such as sustainable furniture, waste treatment, a cooking system and an aquaponic system.

Aquaponics is a self-sustaining food cultivation technique built around a fish tank, Grant said, with edible plants on top of the water that cycles through the system.

“The water from the fish tank is filtered through it, which gives nitrogen to feed the plants,” Grant said, adding the system both recycles and cleans the water.

“Aquaponics will address some of the food issues, and it only uses 10 percent of the water it would take to grow in the soil,” Grant said. “The big issue with Haiti is 97 percent of the trees have been deforested. So you’ve got very unstable soil, which causes all sorts of problems.”

In the second year of the project, the students will build a prototype of the building on the Marietta High School campus. The full-scale version, which will be built in Haiti, will be made out of seven shipping containers. The prototype, Grant said, will be made out of two shipping containers.

“In the third year, we will transfer this technology to Haiti,” Grant said. “So some of the students and myself will go over and we’ll use what we’ve done here and learned, and we’ll transfer that to Haiti, but it’ll be a larger scale.”

He said the cost will not be determined until the entire project has been designed and they know what and how many materials will be needed. Once they have calculated the cost, Grant said they will then begin to solicit donations from both local and national sources.

Mentors include Ted Grosch, a professor of electrical engineering at Kennesaw State University, who is working on the communication system; WellStar physician Mark Huffman, who is working on the clinic facilities; and Sommer Vega, spokeswoman for Marietta City Schools, who is working on website development and marketing.



Pre-Engineering students and some of the Haiti project mentors and project supporters

APPENDIX A  
COBB COUNTY SUCCESS STORIES



## APPENDIX B

### COBB WORKFORCE AND BUSINESS DATA

This appendix provides a profile of the Cobb County business environment and labor force, including commuting patterns, a changing workforce age structure, and top current and forecasted growth industries and jobs in the county. Understanding key workforce and industry data points can help stakeholders and policy makers make informed decisions.

#### TOP EXPORTING INDUSTRIES

Cobb County is home to a large number of US-based corporate headquarters. One indicator of the strength of Cobb companies as economic producers is the location quotient (LQ). The LQ is a measure of how concentrated an industry is compared to national averages (based on employment). For example, NAICS 551 (Management of Companies and Enterprises) has an LQ of 2.63, indicating that the industry is 2.63 times more concentrated in Cobb County than nationally. Typically, an LQ greater than 1.25 indicates industries that are exporting outside of Cobb County and bringing wealth into and supporting additional jobs in Cobb County. Table B.1 shows the top exporting industries in Cobb County.

**TABLE B.1**—Top Exporting Industries in Cobb County

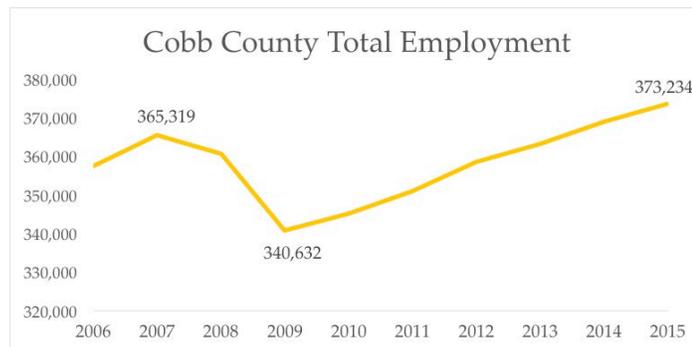
NAICS	Description	2014 Location Quotient*	2014 Establishments	2009 Jobs	2014 Jobs	2009 - 2014 Change	2009 - 2014 % Change
551	Management of Companies and Enterprises	2.63	162	9,529	13,214	3,685	39%
533	Lessors of Nonfinancial Intangible Assets	2.32	16	238	130	(108)	-45%
425	Wholesale Electronic Markets and Agents and Brokers	2.29	930	4,241	4,936	695	16%
517	Telecommunications	2.15	130	4,085	4,334	249	6%
423	Merchant Wholesalers, Durable Goods	1.85	785	11,769	13,072	1,303	11%
336	Transportation Equipment Manufacturing	1.83	25	7,697	6,807	(890)	-12%
493	Warehousing and Storage	1.69	40	2,923	2,915	(8)	0%
442	Furniture and Home Furnishings Stores	1.47	123	1,194	1,676	482	40%
541	Professional, Scientific, and Technical Services	1.45	3,732	27,412	32,869	5,457	20%
561	Administrative and Support Services	1.43	1,433	29,377	30,790	1,413	5%
441	Motor Vehicle and Parts Dealers	1.38	296	5,048	6,222	1,174	23%
236	Construction of Buildings	1.34	534	5,360	6,009	649	12%
444	Building Material and Garden Equipment and Supplies Dealers	1.31	104	2,906	3,867	961	33%
238	Specialty Trade Contractors	1.28	1,031	17,598	15,741	(1,857)	-11%

Source: EMSI, BLS QCEW

#### TOP EMPLOYMENT

Cobb County has a robust economy made up of nearly 375,000 workers. Employment in Cobb has recovered from the Great Recession, growing by nearly 10,000 jobs from its pre-recession levels. Figure B.1 shows the Cobb County total employment trend from 2006 to 2015.

**FIGURE B.1**—Cobb County Total Employment Trend, 2006–2015

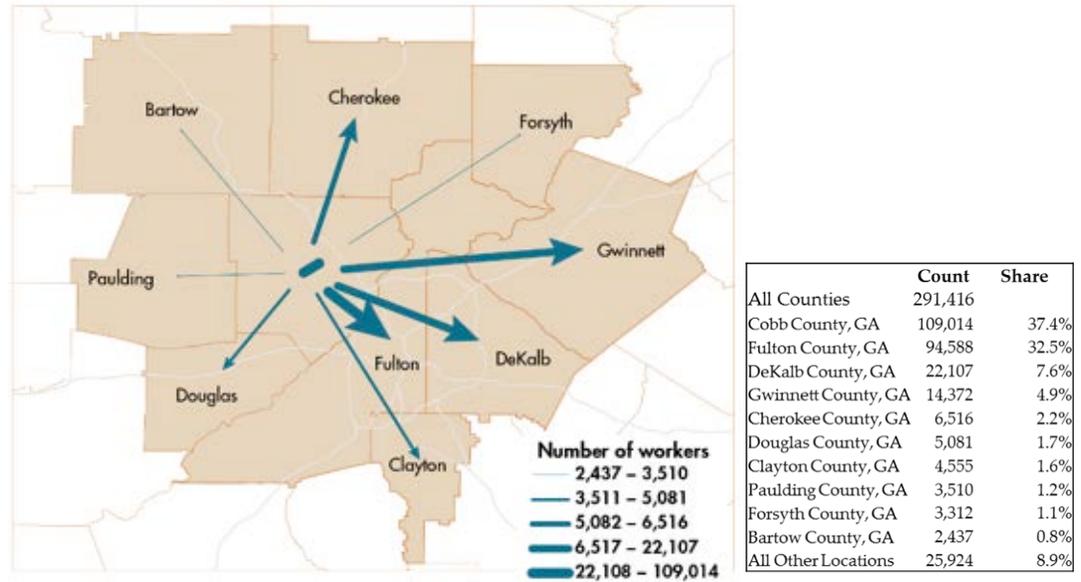


Source: BLS, Local Area Unemployment Statistics Program

### COMMUTING PATTERNS

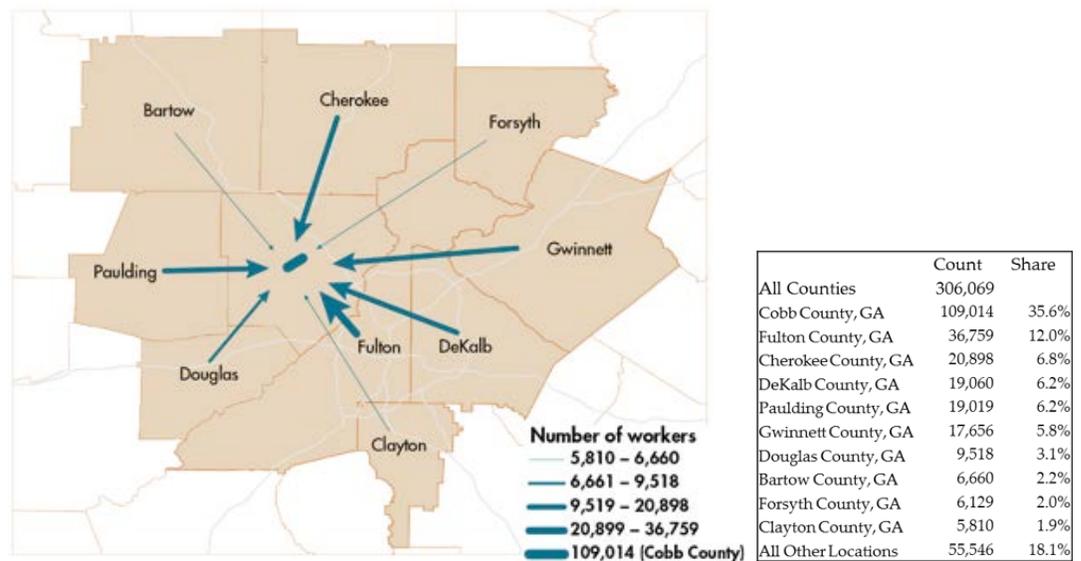
Cobb County is part of the larger Atlanta Metropolitan region. Cobb County’s residents make up part of the regional workforce, and the region provides many of the employees for Cobb businesses. In fact, 63% of Cobb County residents work outside of the county each day, and 64% of workers in Cobb County firms live outside of the county. Almost one-third of Cobb residents commute to Fulton County each day. Similarly, workers from across the Atlanta Metro area commute to Cobb each day for work; Cobb’s bordering counties account for 30% of those commuting to Cobb for work. Figure B.2 shows where Cobb County residents work, and Figure B.3 shows where Cobb County employees live.

**FIGURE B.2**—Where Do Cobb Residents Work?



Source: Census Bureau, OnTheMap/LEHD Program (2013 Data), Carl Vinson Institute of Government

**FIGURE B.3**—Where Do Cobb County Workers Live?



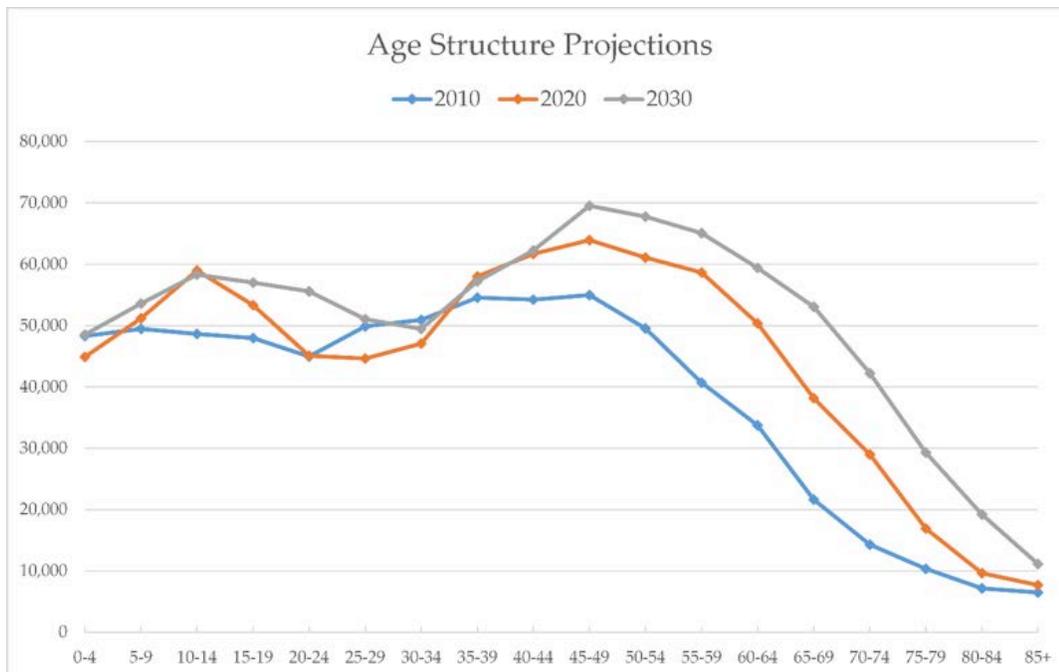
Source: Census Bureau, OnTheMap/LEHD Program (2013 Data), Carl Vinson Institute of Government



## AGE STRUCTURE

Cobb County, like the United States, will grow progressively older as the population ages, according to age structure projections produced by the Governor’s Office of Planning and Budget. It is important for those involved in education and industry to study and understand the implications of a changing age structure (e.g., school enrollment populations, workforce size, an aging workforce). Figure B.4 shows the projected age structure for 2010 to 2030. The population in Cobb County, like many parts of the country, overall will be older as baby boomers retire. Demand for services for seniors will increase, including healthcare and other service industries.

**FIGURE B.4**—Age Structure Projections, 2010–2030



Source: Governor’s Office of Planning and Budget (2012 series)

### OCCUPATIONAL PROJECTIONS

The Georgia Department of Labor produces forecasts for every occupation in Cobb County. Table B.2 shows the top 15 fastest growing jobs in the county. Four of the top 10 fastest growing jobs are in healthcare-related fields. These forecasts provide a baseline of where demand for workers is expected to grow and how quickly that growth will occur.

**TABLE B.2**—Fastest Growing Jobs in Cobb County, 2012–2022

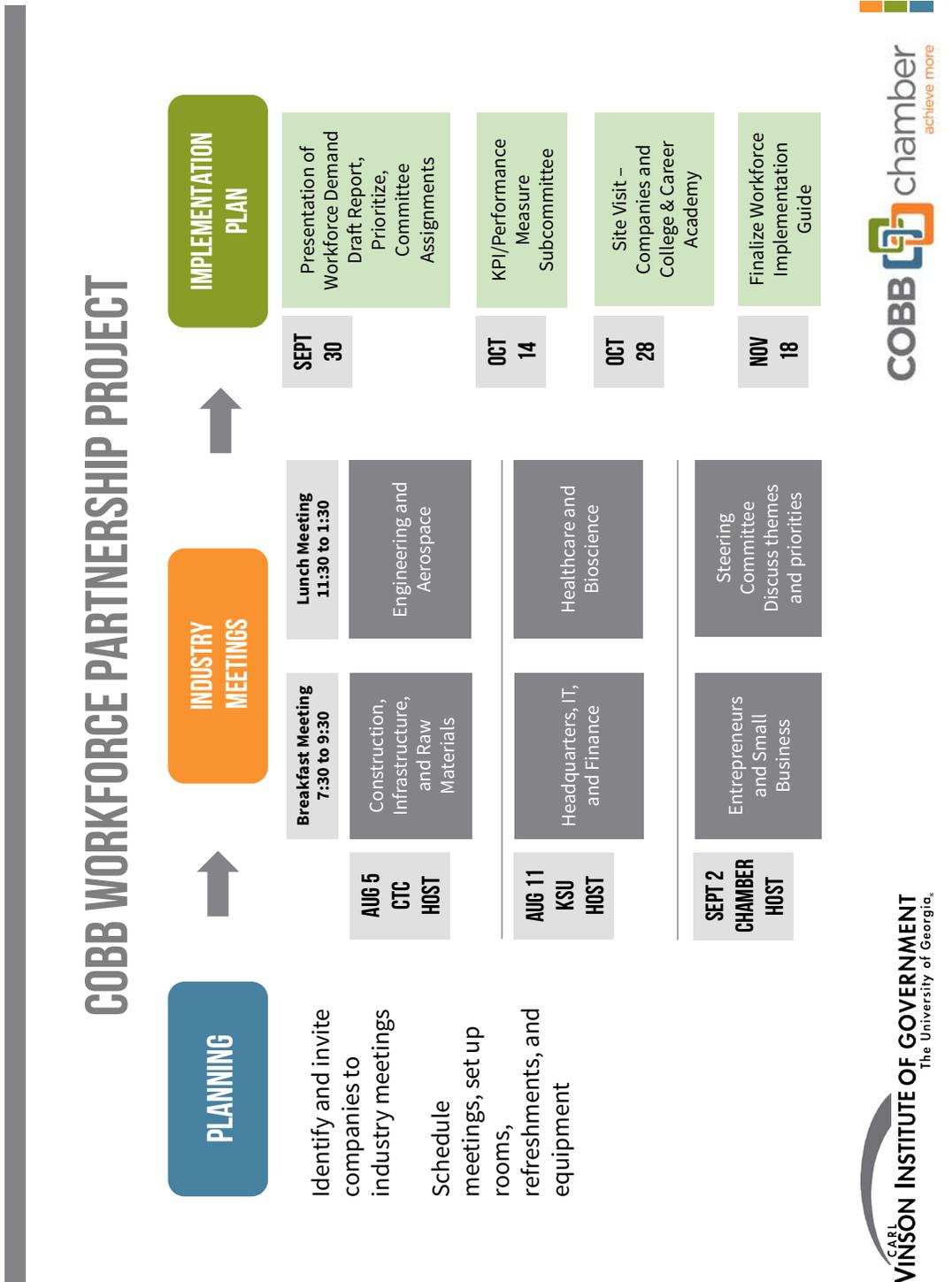
Occupation	2012 Estimated Employment	2022 Projected Employment	Total 2012–2022 Employment Change	Annual Average Percent Change
Physician Assistants	300	500	200	5.26%
Sales and Related Workers	550	880	330	4.74%
Physical Therapists	330	500	170	4.33%
Health Educators	180	270	90	4.29%
Installation, Maintenance, and Repair Workers	330	510	180	4.29%
Mental Health Counselors	90	130	40	4.22%
Veterinary Technologists and Technicians	350	520	170	4.22%
Dental Hygienists	630	940	310	4.21%
Database Administrators	460	690	230	4.13%
Life, Physical, and Social Science Technicians	90	130	40	4.10%
Home Health Aides	740	1,100	360	4.08%
Weighers, Measurers, Checkers, and Samplers, Recordkeeping	230	340	110	4.08%
Helpers--Electricians	430	630	200	3.98%
Market Research Analysts and Marketing Specialists	900	1,330	430	3.97%
Meeting, Convention, and Event Planners	200	300	100	3.95%

Source: Georgia Department of Labor

# APPENDIX C PROJECT PLAN

The Cobb Workforce Partnership project involved several steps to bring the community, industry, and educational leaders to the table. The Cobb Chamber of Commerce and numerous partners worked over the summer and fall of 2015 to make this initiative successful. Figure C.1 documents the initial steps taken by the project team.

FIGURE C.1—Summer and Fall 2015 Cobb Workforce Partnership Project Plan





## APPENDIX D

### STEERING COMMITTEE PRIORITIZATION DATA

On September 2, 2015, the steering committee gathered to prioritize opportunities based on the five sector meetings. Participants were asked to identify themes, short-term opportunities (six to 12 months), and long-term opportunities (12 to 24 months). After creating a list of themes and opportunities, steering committee members were asked to rank the priorities using a series of dots; each person was given six green dots to identify key short-term opportunities, six blue dots to identify key long term-opportunities, and one red dot to identify the one most important issue that this project must address. The order of the items in Appendix D tables is based upon the steering committee’s original discussion. The notes below reflect the flow of the committee’s analysis process. Not all items identified by the committee were voted on as a top priority for the project as a whole. Table D.1 summarizes the top short-term and long-term opportunities identified by steering committee members.

**TABLE D.1**—Steering Committee Priorities

**I. CROSS-CUTTING OPPORTUNITIES**

Short-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Marketing to students at a younger age and targeting the whole family/ teachers	15		6
Align industry and schools around workforce development	12		1
Assess what is working and not working along the supply chain – supply and demand analysis	7	1	3
Establish measurable outcomes and a baseline for workforce development	7		1
Awareness and make industry interested in hiring Cobb graduates			

Long-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
College and career academy	2	15	5
New model for soft skills development and assessment tool	2	12	
Instruction that is a true partnership with industry		12	
Internships etc., students and instructors		8	
Millennials		1	
Innovations! (Europe model)			
K-8 /8-12/ postsecondary			



II. CONSTRUCTION AND SKILLED TRADES

Short-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Program accreditation	2		
Raising awareness of dual enrollment	3		
Industry involvement in HS/MS	7	1	3
Real-world application	6		1
Veteran hiring	3		
Marketing construction as a career			
Partnering with the Technical College System of Georgia (TCSG) for licensure	6		2
TCSG working to upskill workers			
Workforce development coordination to help students identify career pathways	4		1

Long-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Connect education to real world earlier		9	1
Experiential learning			
Systemic and integrated apprenticeship programs/work-based (K-16 pathway) learning		6	
Coordination with unions, firms, and schools, explore new models		1	
Clearinghouse for jobs, internships, and information		3	
Remove barriers between HS and college		4	
Access to college and career academies		1	
Work-based credentialing		2	

III. ENGINEERING AND AEROSPACE

Short-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Create awareness of Cobb resources/career demand, parents, students, teachers, school boards, commissioners, HR departments	2		
Resources: YouScience, data; UGA/ GA Tech, chambers, ARC, staffing industry, state agencies, employers/ companies, GA Power (economic development)	12	1	
Develop awareness campaign/ marketing: careers, education paths	4	1	1
Partnerships: teaching, mentoring, Externships/internships: CobbWorks, United Way, Junior Achievement, QuickStart, Develop curriculum-based opportunities	2		
Begin a repository/directory of resources/careers paths, etc.			

Long-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Increase STEM programs	3	7	
Skill development programs: apprenticeships		7	
Career academies	1	4	
Develop a system of exposure to multiple careers/sectors (clearinghouse)		1	
Develop corporate sponsorships: scholarships, programs, resources			
Expand engineering schools/ educational systems or programs' capacity and K-12/TCSG connection			

APPENDIX D  
STEERING COMMITTEE PRIORITIZATION DATA

IV. HEADQUARTERS, INFORMATION TECHNOLOGY, AND FINANCE

Short-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Existing educational resources, career marketing (K-16)	8		
Establish intentional education and business partnerships	6		1
Short-term skills training programs, e.g., Build Cobb Partnership	2		
YOUscience metrics to help students choose careers and match with opportunities	1		
Partnerships with businesses to provide "teachers" in their area of expertise to "on loan" programs	1		
Employer involvement in marketing efforts			

Long-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
More internships leading to a license, certification, etc.		4	
Partnerships to develop career academies: leave with credits for college degree, associate's degree, certification		4	
Stackable credentials		4	
Early talent identification		3	
Industry investment in partnerships, cooperative opportunities		2	
"Nontraditional" solutions for filling IT positions, any skilled instruction position	3		
Live, learn, and work here campaign "ya'll come back"			
Teacher "gap," math/science	1		

V. HEALTHCARE AND BIOSCIENCE

Short-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
More exposure among students, parents, and teachers to industry	5		
Assess and evaluate curriculum and soft skills	2		
Change how we attract people into an industry (marketing)	2		
Evaluate career pathways and resource priorities	2		
Prioritize top five positions, we can design a plan/align all resources	2		
Assess industry/education partnership for aptitude (YouSciences)	1		
Volunteer/job shadow	1		
WellStar, Kaiser, CHOA, KSU, CTC, Marietta, Cobb develop unified plan for the healthcare career paths and workforce; map resources and education programs	1		

Long-Term Opportunities	Green-Highest Priority Short-Term Opportunity	Blue-Highest Priority Long-Term Opportunity	Red-Most Important Issue to Address
Need more instructors, clinical sites, and equipment		7	
Define public policy that needs to change: OSHA - barriers, HIPAA		4	
College and career academy		3	
Address millennials' need to change jobs/challenges		1	
Apprenticeships		1	
How does industry screen for soft skills?			
Scholarships from industry			



# APPENDIX E

## PARTNERSHIP MEASURES AND VISION ALIGNMENT

Figure E.1 details how the draft partnership metrics align with the vision. Aligning the metrics to the partnership’s vision ensures that progress will be made and measured.

**TABLE E.1**—Draft Vision and Performance Measure Alignment

Five-Year Vision	Leading Indicators	Lag Indicators
Industry and education are better connected and aligned	Number of K–12 externships and industry partnership agreements with education and training providers	Employer and educator survey
	Number of industry-provided case studies for high school classes	
	Number of high school and college students completing internships, apprenticeships, co-ops, or work-study opportunities	Internship sponsor satisfaction and feedback survey
Employers have the workforce they need locally	Percentage of graduates completing CTAE pathway and earning a national industry-recognized credential (CCRPI #10)	Employer survey Time to fill a position (decreases) Number of applicants meeting the minimum qualifications (increases)
	Percentage of high school graduates entering TCSG/USG not requiring remediation or learning support course, etc. (CCRPI #11)	
	Soft Skills: Number of students completing soft skills training program (To be developed)	Soft Skills: Percentage of students meeting specified performance standards on soft skills assessment (To be developed)
	Students who complete training programs are placed with employers in the county (CobbWorks)	

Five-Year Vision	Leading Indicators	Lag Indicators
Students and the underemployed are more engaged and focused on a career path	Number of high school students (11th and 12th grade) enrolled in the career pathway programs	Retention rates - grades 10,11,12, and freshman and sophomore for 2-year and 4-year schools
	Percentage of graduates completing CTAE pathway and earning a national industry-recognized credential (CCRPI #10)	High school drop out rate
	Number of students dual enrolled (CCRPI #12)	Number of students dual enrolled (CCRPI #12)
	Number of Cobb Works Youth participants in a career path training program	Average age of student body in 2-year colleges (first-time freshmen and graduates)  Transfer rates 2 yr. and 4 yr. colleges  Graduation rates - HS, 2 yr., 4 yr. schools  Graduation rate for high school students completing a career pathway program or specialized academy
Strong Workforce Pipeline: Partners are aligned to coordinate and secure resources	Cobb Workforce Partnership funding stable; partners providing resources	College and Career Academy built and programs being supported by industry and education partners
	Marketing campaign launched by June 2016	Marketing campaign message reflected in social media and website hits

Five-Year Vision	Leading Indicators	Lag Indicators
Strong Workforce Pipeline: The partnership aligns Cobb workforce needs and supply	Cobb Workforce Partnership sector partnerships recommend needed curriculum changes and create internship and work-study opportunities	Curriculum changes made as needed in the education programs to more closely align with industry needs
		Number of internship and work study opportunities increase each year over next three years
Parents, students, and teachers are more informed about career paths	YouScience participation	Parent and student survey about career pathways
	Attendance at 9th grade career nights (To be developed)	Parent and educator survey
Employers understand the changing needs and work style of the future workforce		Employer survey
Residents of Cobb County know where to go for career training and education		Survey data
Residents of Cobb County are workforce ready/employable or able to start their own enterprise		Survey data

