



ALABAMA SUCCESS

EDUCATION & CAREER PLANNER

The answers you need to succeed



WHO
can help me
get started?



HOW
can I make high school
work for me?



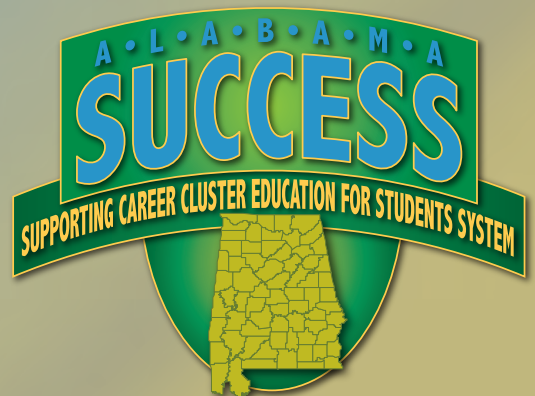
HOW
can I discover
my talents?



WHERE
can I explore careers
that interest me?



HOW
can I plan for a
successful future?

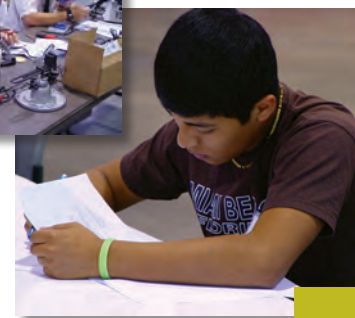




In elementary and middle school, other people make all the decisions for you.

The courses you take.
Your after-school activities.
How and what and where you learn.

That was then—and this is now.



You're in

Control

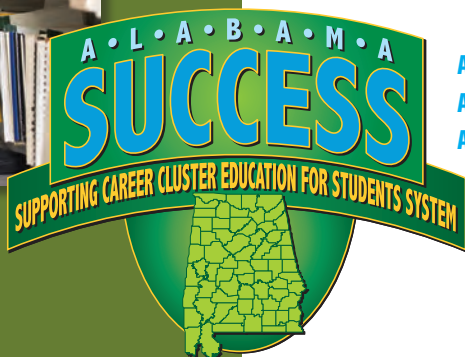


Your next step is high school, where the rules change. In high school, you get to make most of the important decisions about your education. **You're in control.** If having all that power sounds a little scary, relax. In Alabama, there are lots of people and programs in place to help you map out a successful plan to reach your future goals. That plan begins with Alabama SUCCESS, the Supporting Career Cluster Education for Students System which is outlined in this guide. With Alabama SUCCESS, you can:

- ◆ Explore 16 different career interest areas
- ◆ Discover the jobs that best fit your interests and talents
- ◆ Figure out what you do well and what you like to do
- ◆ Put all that together to create your personal education plan for high school and beyond.



The plan you design—with the help of your parents and counselor—will include the courses, clubs, and career learning experiences you need in order to prepare for success in your education, your career, and your life.



Alabama SUCCESS makes going to school matter more than ever before.
Alabama SUCCESS connects what you learn in class to real-world careers.
Alabama SUCCESS starts now.

READY, SET, TAKE CONTROL!

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A message from ...



Dr. Thomas R. Bice,
Alabama State
Superintendent of
Education

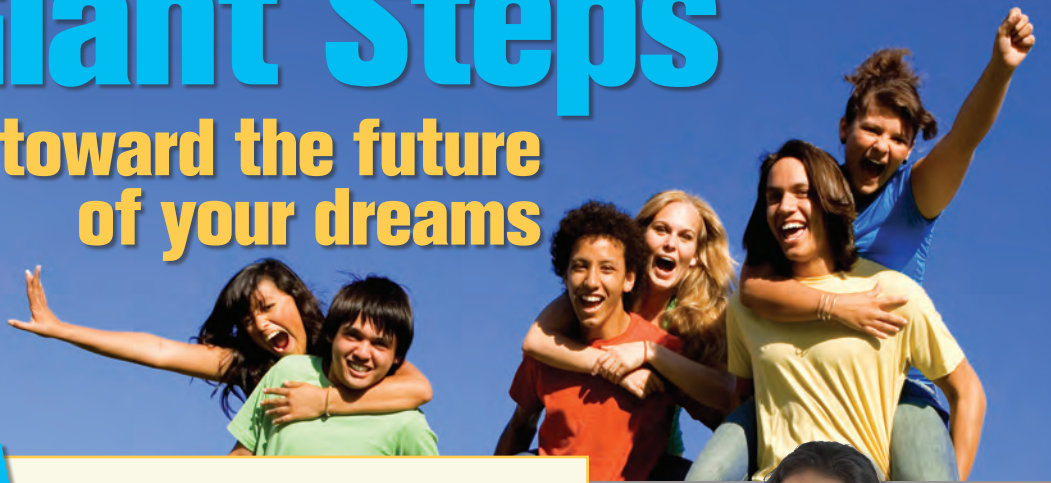
Alabama SUCCESS is an invaluable resource designed specifically for students. By

learning about actual career fields and the education and experience required for specific jobs, you will be better able to figure out what you want to do after high school and what you need to do to achieve your goals.



Take 3 Giant Steps

toward the future
of your dreams



STEP 1

WHO ARE YOU?

Take this quick quiz.

Start figuring out what career clusters and specific occupations might best fit your skills and personality.

1. Do you enjoy spending time outside?

If you answered yes, then check out the opportunities in these Alabama career clusters: Agriculture, Food & Natural Resources (page 6); Architecture & Construction (page 7); and Hospitality & Tourism (page 14).

2. Can you text faster than you can talk?

If you love high-tech gadgets, computers, or video games, then you might enjoy working as a game designer, computer scientist, engineer, programmer, or technician.

3. Do your friends ask you for help in math and science?

If math and science come easy to you, then explore your options in Finance (page 11); Science, Technology, Engineering & Mathematics (page 20); Business Management & Administration (page 9); and Health Science (page 13).

4. Is art your favorite class?

If you love to paint, draw, make models, or take photographs, then you might have what it takes to become a graphic, fashion, or interior designer; visual artist; museum curator; or advertising agency executive.

6. Do you enjoy building or fixing things, or solving puzzles?

If you enjoy working with your hands, then check out the careers available in Manufacturing (page 18); Transportation, Distribution & Logistics (page 21); Architecture & Construction (page 7); and Science, Technology, Engineering & Mathematics (page 20).

6. Do you like being in charge?

If you're a natural leader, then you could find your career path in government, law, management, business, education, coaching, or the military. You also might enjoy owning and operating your own business or franchise.

7. Do you enjoy helping people?

If you are a helpful person who likes caring for others and comforting friends when they are sick or sad, then explore the career opportunities available in Human Services (page 15); Health Science (page 13); Education & Training (page 10); and Law, Public Safety, Corrections & Security (page 17).

8. Are you a huge NASCAR, BMX, or X Games fan?

If you have a need for speed and adventure, then explore careers that would allow you to work on or around vehicles, such as an airline pilot or steward, bus or truck driver, automotive technician, auto designer, mechanical or aeronautical engineer, boat captain, or member of the military.



STEP 2

EXPLORE JOBS

Explore jobs that match your interests and strengths.

Use the career cluster overviews (pages 6–21) as a starting point. Then, follow up with the career resources available at your school and online (see the inside back cover of this book) to learn about jobs, salaries, and what it takes to do what you want to do.

When you see, read about, or hear about a career that sounds interesting, find out the answers to these three key questions:

- ◆ What preparation (special training, education, work experience) is required to get the job that interests you?
- ◆ What activities (clubs, internships, job shadowing) can you participate in now to help you learn more about this career?
- ◆ How much money could you earn in that career (what is the average yearly salary)?

CREATE A PLAN

Sit down with your parents and counselor and create a plan.

Map out an Alabama Education Plan (sample at right) based on your interests, strengths, and possible career goals.

Your plan outlines the courses and electives you'll take in high school, plus related clubs and career preparation. Your counselor will work with you to determine the learning experiences needed for you to complete your plan, such as using distance learning or earning college credit from your local community college.

Here's a sample Alabama Education Plan for you to use as a guide.

ARTICULATION AGREEMENT

is a fancy term for a simple education agreement that can streamline your road to a successful career.

Statewide articulation agreements link all high schools and two-year colleges in Alabama. They provide credit at two-year colleges for coursework mastered at the high school level.

SAMPLE* Alabama Education Plan



Name: Jordan Smith
School: Central High School
Diploma Option: Advanced Career and Technical Endorsement
Cluster: Science, Technology, Engineering & Mathematics
Pathway: Engineering and Technology
Career Goal: Biomedical Equipment Technician
Postsecondary Goal: Associate in Applied Science Degree

| | Math | English | Science | Social Studies | Other Optional Courses | Sampling of Career and Technical Education Courses in Pathway |
|--------------------------|---|------------|------------------|--|---|---|
| 9th Grade | Algebra I | English 9 | Physical Science | World History 1500–Present | <ul style="list-style-type: none"> Health Fine Arts Computer Applications Physical Education Foreign Language I** Foreign Language II** CTE Course I—Foundations of Engineering CTE Course II | <ul style="list-style-type: none"> Foundations of Engineering Engineering Applications Engineering Research and Design Engineering Systems |
| 10th Grade | Geometry | English 10 | Biology | United States History to 1877 | | |
| 11th Grade | Algebra II with Trigonometry | English 11 | Chemistry | United States History to Present | | |
| 12th Grade | Pre-Calculus or Calculus | English 12 | Physics | Government and Economics | | |
| Community College | General Education Requirements <ul style="list-style-type: none"> English Composition I English Composition II or SPH 106 Humanities Elective Intermediate College Math Microcomputer Applications Math or Science Elective History, Social, or Behavioral Science Orientation for Career Students | | | Required and CTE Courses <ul style="list-style-type: none"> Applied Electronic Computation Concepts of Direct Current*** Concepts of Alternating Current*** Concepts of Solid State Electronics Concepts of Digital Electronics Concepts of Electronic Circuits Circuit Fabrication Special Topics in ILT (Microprocessors) | | <ul style="list-style-type: none"> Biomedical Equipment Technician Option (A.A.S.) Industrial Electronic Controls Hydraulics/Pneumatics*** Troubleshooting Techniques*** Biomedical Electronics Electro-Optics Electro-Optics Lab Cooperative Education |
| Higher Education | Education and Career Assessments: 8th Grade: Interest inventory and education plan initiated for all learners 11th Grade: College placement assessment Career Learning Experiences: Career preparation—paid and unpaid, internships, job shadowing | | | Co-Curricular Experiences: Technology Student Association (TSA) Extracurricular Experiences: FIRST Robotics Service Learning Experiences: Service project to adapt computers to make them accessible for seniors with disabilities | | |

*This is a sample plan and should not be considered a definitive plan for any student interested in this career cluster.
 Alabama First Choice diploma requires 2 years of the same foreign language. *Statewide articulated course

Articulation agreements can take you down your career pathway as well. In many cases, students transferring from two-year to four-year colleges and universities can complete four-year general studies core course requirements before they transfer.

Get Career Credentials

If you're a student in a career and technical education (CTE) program, you may have the option of earning a Career Readiness Certificate along with your high school diploma. The nationally recognized certificate shows you're proficient in applied math, reading for information, and locating information—skills employers highly value. Ask your school counselor about the statewide program; if it's not in your high school now, it will be implemented soon.



Alabama offers students a world of career options. From marine biology in Mobile to high-tech aeronautics in Huntsville, the possibilities are limitless for Alabama students who plan ahead for a successful future.

**So, when should you start planning?
Why not begin right now?**

Explore Your Options



The Alabama career clusters outlined in this guide make it easy for you to map out a path to wherever you want to go. Choose a cluster that matches your interests and then pick a career pathway that you'd like to explore. During high school, you can change clusters or pathways as you learn more about yourself and specific careers.

The choices you make today really do matter. The more planning and preparation you do now—before high school even begins—the better prepared you'll be to succeed in whatever you choose to do.

REAL-LIFE REPORT



NAME: Josh Standridge
EDUCATION: Hayden High School,
Blount County Career Technical Center,
Mississippi State University and Veterinary School



As a Hayden High student, Josh volunteered at a local animal hospital, took dual enrollment courses for college credit, and landed a job at the Birmingham Zoo through a special program with the Blount County Career Technical Center. This experience helped him earn his undergraduate degree in only two years and guaranteed acceptance into the Mississippi State Veterinary School as a college freshman.

"In the eighth grade, I started researching what I needed to do to achieve my goal of becoming a veterinarian. The plan I developed has come full circle. I am now the youngest member of my veterinary school class, and after graduation, I plan to work with some of the largest poultry producing companies in Alabama and Mississippi to make sure that the chicken we eat is healthy, and to make sure that infectious diseases like avian flu never pass to the public."

Meet the Clusters

The Alabama career cluster system is like a chest of 16 drawers filled with careers. Each drawer contains a variety of jobs linked to a specific skill or interest area, such as Information Technology or Health Science.

Take a quick look inside each drawer to see what's there and to start figuring out what fits you best. When you find a drawer or two where the careers and courses inside sound like something you would enjoy, take a longer look at the available opportunities and options. Use this information to talk to your parents and counselor about your future, your goals, and your plans for high school and beyond.

To help you get started, here's a quick overview of what's inside each cluster. Take a look, see what might fit, and then try a career cluster and pathway on for size.



Processing, production, distribution, and development of agricultural commodities and natural resources



Designing, managing, building, and maintaining the built environment



Creating, exhibiting, performing, and publishing multimedia content



Organizing, directing, and evaluating functions essential to productive business operations



Providing education and training services, and related learning support services



Financial and investment planning, banking, insurance, and business financial management



Executing governmental functions at the local, state, and federal levels



Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research



Managing restaurants and other food services, lodging, attractions, recreation events, and travel-related services



Providing for families and serving human needs



Designing, supporting, and managing hardware, software, multimedia, and systems integration



Providing legal, public safety, protective, and homeland security services



Processing materials into intermediate or final products



Performing marketing activities to reach organizational objectives



Performing scientific research and professional and technical services



Managing movement of people, materials, and goods by road, pipeline, air, rail, and water

Every Alabama public school student will apply Alabama SUCCESS to all 16 career clusters. Your counselor will work with you to determine the courses and related career experience you need to fulfill your education plan and reach your goals.

The career clusters icons above are used with permission of the States' Career Clusters Initiative, 2008.

Growing Your Future



AGRICULTURE, FOOD & NATURAL RESOURCES



Are you interested in environmental issues? Do you enjoy gardening, camping, hunting, or fishing? Are you good with animals, or interested in biological sciences?

If you enjoy nature, science, or simply working outdoors, you should know that there's a big, wide world of career opportunities available in the Agriculture, Food & Natural Resources cluster. Across Alabama, students in this cluster are preparing for exciting careers as varied as aquafarming and landscape design, fighting bioterrorism and maintaining a safe water supply.

What It Takes:

- ✓ Strong science and business skills
- ✓ A desire to protect and responsibly manage the world's resources
- ✓ An ability to be organized and on time
- ✓ Professional appearance
- ✓ Enjoyment in working outdoors



QUICK LOOK

Agriculture, Food & Natural Resources

| Pathways | Sample Occupations |
|--|---------------------------------|
| Power, Structural and Technical Systems* | Agricultural Equipment Operator |
| Natural Resources Systems* | Fish and Game Warden |
| Food Products and Processing Systems | Food Scientist and Technologist |
| Plant Systems* | Forester |
| Animal Systems* | Veterinary Assistant |
| Environmental Service Systems | Environmental Engineer |
| Agribusiness Systems* | Farm Labor Contractor |

*Denotes Alabama pathway



Golf Course Turf Manager

WHAT: Keep golf courses in shape by using their expert knowledge of golfing, plants, and irrigation systems; and golf to water, fertilize, cut, and precisely manicure the greens.

WHO: Turf managers have strong business and people skills, love golf, and know how to manage plant diseases and sprinkler systems.



10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|--|--------------------|
| Natural Sciences Manager | Bachelor's degree or higher | \$106,400 |
| Veterinarian | First professional degree | \$72,100 |
| Environmental Engineer | Bachelor's degree | \$80,300 |
| Biochemist and Biophysicist | Doctoral degree | \$57,200 |
| Occupational Health and Safety Specialist | Bachelor's degree | \$68,800 |
| Farm, Ranch, or Other Agricultural Manager | Bachelor's degree or higher plus work experience | \$78,900 |
| Veterinary Technologist or Technician | Associate's degree | \$24,700 |
| Nonfarm Animal Caretaker | Short-term on-the-job training | \$18,000 |
| Meat, Poultry, and Fish Cutters and Trimmers | Short-term on-the-job training | \$21,000 |
| Veterinary Assistant or Laboratory Animal Caretaker | Short-term on-the-job training | \$19,500 |

This is a chart for 10 of the top-paying and high-demand careers in the Agriculture, Food & Natural Resources cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.

Building Success



ARCHITECTURE & CONSTRUCTION



Do you like building things or drawing? Do you enjoy working with tools? Do you get good grades in math and science?

Look around you. A team of architecture and construction professionals built every structure, housing community, park, and roadway you can see. Whether you dream of designing a new building or wielding a blowtorch on a construction crew, opportunities are available throughout Alabama for highly skilled, hardworking people in this field.

What It Takes:

- ✓ Strong math, science, and time management skills
- ✓ Attention to detail
- ✓ Being good at following directions
- ✓ Satisfaction in working as part of a team
- ✓ Enjoyment in working with your hands and with tools



QUICK LOOK

Architecture & Construction

Pathways

Design/Pre-Construction*

Construction*

Maintenance Operations*

Sample Occupations

Interior Designer

Carpenter

Heating, Air Conditioning, and Refrigeration Mechanic

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|-----------------------------------|--------------------|
| Architect | Bachelor's degree | \$70,000 |
| Construction Manager | Bachelor's degree | \$74,400 |
| Civil Engineer | Bachelor's degree | \$69,300 |
| Landscape Architect | Bachelor's degree | \$37,100 |
| Elevator Installer and Repairer | Long-term on-the-job training | \$53,500 |
| Electrical and Electronics Repairer, Powerhouse, Substation, and Relay | Postsecondary on-the-job training | \$61,200 |
| Cost Estimator | Related work experience | \$50,800 |
| First-Line Supervisor/Manager of Construction Trades | Related work experience | \$51,300 |
| Electrical Power-Line Installer and Repairer | Long-term on-the-job training | \$53,400 |
| Welder, Cutter, Solderer, and Brazier | Long-term on-the-job training | \$32,900 |

This is a chart for 10 of the top-paying and high-demand careers in the Architecture & Construction cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Underwater Robotic Welder

WHAT: Program or operate high-tech, automated welding tools sent underwater to repair bridges, pipelines, tunnels, oil platforms, and vessels.

WHO: Underwater robotic welders work in diving suits or on deck as welding engineers or technicians. Open water welders have special training, strength and coordination, and an adventurous spirit.



Express Yourself



ARTS, A/V TECHNOLOGY & COMMUNICATIONS



Do you like to write, act, sing, or create visual art? Can you play a musical instrument? Do you love using new technologies?

The Arts, A/V Technology & Communications cluster stretches as far and wide as your imagination. If you're known for your creative flair or for expressing yourself well, a wide variety of career possibilities are available to you in Alabama or wherever your adventures take you.



What It Takes:

- ✓ A passion for your art or craft
- ✓ Perseverance and self-confidence
- ✓ Talent plus a willingness to improve
- ✓ Time-management and public speaking skills
- ✓ Practical experience



QUICK LOOK

Arts, A/V Technology & Communications

| Pathways | Sample Occupations |
|-------------------------------|------------------------------------|
| Audio/Video and Broadcasting* | Sound Engineering Technician |
| Printing Technology* | Bookbinder |
| Visual Arts* | Commercial and Industrial Designer |
| Performing Arts | Choreographer |
| Journalism | Reporter or Correspondent |
| Telecommunications | Telecommunications Line Installer |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|-------------------------------|--------------------|
| Broadcast News Analyst | Bachelor's degree or higher | \$46,700 |
| Music Director and Composer | Bachelor's degree or higher | \$48,800 |
| Art, Drama, and Music Teacher, postsecondary | Master's degree | \$52,600 |
| Writer and Author | Bachelor's degree | \$55,700 |
| Producer and Director | Bachelor's degree or higher | \$49,800 |
| Fine Artist | Long-term on-the-job training | \$42,100 |
| Multimedia Artist and Animator | Bachelor's degree | \$41,400 |
| Editor | Bachelor's degree | \$41,000 |
| Telecommunications Line Installer and Repairer | Long-term on-the-job training | \$37,700 |
| Graphic Designer | Bachelor's degree | \$40,300 |

This is a chart for 10 of the top-paying and high-demand careers in the Arts, A/V Technology & Communications cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, US Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Multimedia Artist

WHAT: Use film, video, computer, or other media tools to create special effects, animation, computer games, music videos, movies, and commercials.

WHO: Multimedia artists are creative people with skills and training in specific areas such as computer animation, photography, and graphic design.



Taking Care of Business



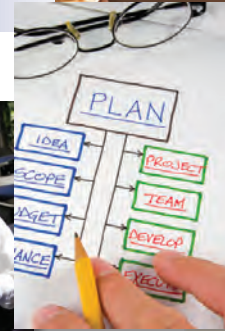
BUSINESS MANAGEMENT & ADMINISTRATION

Are you good with numbers? Do you like earning and managing your own money? Are you the leader of a team, club, or project?

Check out the fast-growing, high-paying world of business, management, and administration. With a solid business background, you could own your own company, work in a law or medical office, manage a store, or plan meetings and events. Or maybe you'd like to be an accountant, a personnel recruiter, or an agent representing an athlete, artist, or performer.

What It Takes:

- ✓ Strong math, English, and public speaking skills
- ✓ Attention to detail
- ✓ Being organized and on time
- ✓ Professional appearance
- ✓ Enjoyment in working with people



QUICK LOOK

Business Management & Administration

| Pathways | Sample Occupations |
|--|-------------------------|
| Administrative Services* | Court Reporter |
| Business Information Technology* | Budget Analyst |
| Business, Financial Management, and Accounting | Chief Executive |
| Human Resources | Training Specialist |
| Corporate/General Management* | Business Manager |
| Marketing | Advertising Sales Agent |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|-----------------------------------|--------------------|
| CEO | Bachelor's degree or higher | \$166,400 |
| Marketing Manager | Bachelor's degree or higher | \$103,000 |
| Sales Manager | Bachelor's degree or higher | \$85,000 |
| General and Operations Manager | Bachelor's degree or higher | \$85,100 |
| Financial Manager | Bachelor's degree or higher | \$92,900 |
| Advertising Sales Agent | Moderate on-the-job training | \$35,500 |
| Court Reporters | Postsecondary on-the-job training | \$41,700 |
| Bookkeeping, Auditing, and Accounting Clerks | Moderate on-the-job training | \$30,600 |
| Data Entry Keyer | Moderate on-the-job training | \$25,200 |
| Medical Secretary | Postsecondary on-the-job training | \$27,100 |

This is a chart for 10 of the top-paying and high-demand careers in the Business Management & Administration cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Sports Marketer

WHAT: Work for a sports organization to get fans in the seats, sell merchandise, and create excitement for a team or brand.

WHO: Sports marketers have strong business and people skills, a willingness to work hard, and a love for the games their teams play.



Go to the Head of the Class



EDUCATION & TRAINING

Do you enjoy school? Are you active in school or community groups? Do you help your friends with schoolwork or studying? If you enjoy learning

and like sharing what you know with others, then you might make a great educator. There's a high demand for talented teachers in Alabama in school classrooms; as corporate trainers; and as school counselors, coaches, and administrators.

What It Takes:

- ✓ Strong academic and study skills
- ✓ Enjoyment in learning new things and sharing knowledge with others
- ✓ Solid public speaking skills
- ✓ Optimistic, caring, and confident personality
- ✓ Love of working with people



QUICK LOOK

Education & Training

Pathways

Administrative and Support Services*

Professional Support Services*

Teaching/Training*

Sample Occupations

Education Administrator

Librarian

Kindergarten Teacher

*Denotes Alabama pathway



10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|--|--------------------|
| Law Teacher, postsecondary | First professional degree | \$56,600 |
| Instructional Coordinator | Bachelor's degree or higher plus work experience | \$65,100 |
| Health Specialties Teacher, postsecondary | Master's degree | \$83,700 |
| Biological Science Teacher, postsecondary | Doctoral degree | \$100,400 |
| Business Teacher, postsecondary | Master's degree | \$78,000 |
| Education Teacher, postsecondary | Doctoral degree | \$58,400 |
| English Language and Literature Teacher, postsecondary | Master's degree | \$44,900 |
| Career/Technical Education Teacher, postsecondary | Bachelor's degree or higher plus work experience | \$44,300 |
| Special Education Teacher, kindergarten, elementary | Bachelor's degree | \$50,800 |
| Preschool Teacher, except special education | Postsecondary on-the-job-training | \$25,500 |

This is a chart for 10 of the top-paying and high-demand careers in the Education & Training cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Outdoor Education Instructor

WHAT: Teach skills such as whitewater kayaking, rock climbing, and wilderness survival and first aid.

WHO: Outdoor education instructors love outdoor adventure activities, are in excellent physical shape, and have the patience and maturity to teach people of all ages and ability levels.



Making Money Work



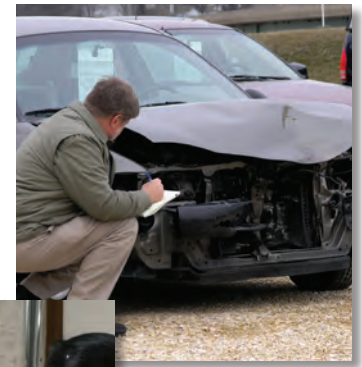
FINANCE

Are you good with numbers? Do you like earning and managing your own money? Are you the leader of a team, club, or project?

A strong finance background can take you anywhere. Companies in every industry need accountants and bookkeepers, banks in every city need tellers and bankers, and investors around the world rely on financial planners and stockbrokers. If you like money, and want to make it work for you, consider the Finance cluster.

What It Takes:

- ✓ Strong math, English, and computer skills
- ✓ Attention to detail
- ✓ Being organized and reliable
- ✓ Love of solving puzzles and brain teasers
- ✓ Enjoyment in working with people



QUICK LOOK

Finance

| Pathways | Sample Occupations |
|--------------------|----------------------------|
| Accounting* | Personal Financial Advisor |
| Corporate Finance* | Financial Analyst |
| Banking Services* | Bank Teller |
| Insurance* | Insurance Sales Agent |
| Management | Business Manager |
| Marketing | Advertising Sales Agent |

*Denotes Alabama pathway



Forensic Litigator

WHAT: Investigate financial fraud and track down undercover computer transactions designed to hide illegal financial transactions.

WHO: Forensic litigators have strong computer and problem-solving skills.



10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|--|--------------------|
| Personal Financial Adviser | Bachelor's degree | \$78,200 |
| Financial Analyst | Bachelor's degree | \$60,900 |
| Actuary | Bachelor's degree or higher plus work experience | \$66,000 |
| Insurance Sales Agent | Bachelor's degree | \$41,000 |
| Claims Adjuster, Examiner, and Investigator | Long-term on-the-job training | \$59,300 |
| Credit Analyst | Bachelor's degree | \$49,300 |
| Insurance Underwriter | Bachelor's degree | \$46,000 |
| Insurance Appraiser, auto damage | Long-term on-the-job training | \$77,100 |
| Title Examiner, Abstractor, and Searcher | Moderate on-the-job training | \$32,200 |
| Bill and Account Collectors | Short-term on-the-job training | \$27,600 |

This is a chart for 10 of the top-paying and high demand careers in the Finance cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.

Liberty and Justice **for All**



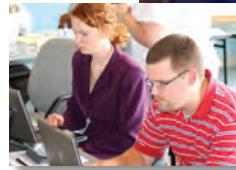
GOVERNMENT & PUBLIC ADMINISTRATION



Are you interested in news and current events? Do you take part in student government, organizations, and clubs? Do you like helping people with their problems? The government is the biggest employer in the U.S. So if you want to prepare for a career in a field with plenty of job openings, then consider Government & Public Administration. The wide variety of career options includes tourism and transportation, accounting and animal control. Wherever there is a local, state, or federal agency or office, there is a need for qualified employees.

What It Takes:

- ✓ Strong math, English, and public speaking skills
- ✓ Desire to help others
- ✓ Good listening and time management skills
- ✓ Enjoyment in working on a team
- ✓ Leadership, debate, or student government experience



QUICK LOOK

Government & Public Administration

| Pathways | Sample Occupations |
|---------------------------------------|--|
| Governance | Legislator |
| Planning | Urban and Regional Planner |
| Revenue and Taxation | Tax Examiner, Collector, and Revenue Agent |
| Regulation | Detective and Criminal Investigator |
| Public Management and Administration* | Postal Service Clerk |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|-----------------------------------|--------------------|
| Postmaster and Mail Superintendent | Related work experience | \$61,700 |
| Urban and Regional Planner | Master's degree | \$53,100 |
| Financial Examiner | Bachelor's degree | \$65,300 |
| Transportation Inspector | Related work experience | \$62,300 |
| Compliance Officer, except agriculture, construction, health and safety, and transportation | Long-term on-the-job training | \$55,900 |
| Appraiser and Assessor of Real Estate | Postsecondary on-the-job training | \$48,500 |
| Tax Examiner, Collector, and Revenue Agent | Bachelor's degree | \$51,800 |
| Detective and Criminal Investigator | Related work experience | \$50,400 |
| Postal Service Clerk | Short-term on-the-job training | \$53,100 |
| Postal Service Mail Carrier | Short-term on-the-job training | \$51,200 |

This is a chart for 10 of the top-paying and high-demand careers in the Government & Public Administration cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Foreign Service Diplomatic Courier

WHAT: Secretly and safely carry diplomatic pouches containing classified and sensitive material for the federal government.

WHO: Diplomatic couriers often live and work in foreign countries, and travel frequently.



Lifesaving Solutions



HEALTH SCIENCE

Do you enjoy helping others? Is science one of your favorite subjects? Are you interested in how the human body works? Health Science professionals work in research laboratories, health clubs, and health-care facilities including hospitals, nursing homes, and physicians' offices. Using their science and problem-solving skills, people in this cluster create new medicines, discover cures for diseases, heal and comfort the sick, and operate the high-tech tools that diagnose and treat illnesses and injuries.

What It Takes:

- ✓ Strong math, science, and computer skills
- ✓ Attention to detail
- ✓ Desire to help others
- ✓ Ability to work on a team
- ✓ Enjoyment in working with people

QUICK LOOK

Health Science

| Pathways | Sample Occupations |
|---|---|
| Therapeutic Services* | Athletic Trainer |
| Diagnostic Services* | Nuclear Medicine Technologist |
| Health Informatics* | Medical Transcriptionist |
| Supportive Services* | Mental Health and Substance Abuse Social Worker |
| Biotechnology Research and Development* | Biomedical Engineer |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|-----------------------------------|--------------------|
| Oral and Maxillofacial Surgeon | First professional degree | \$166,400 |
| Internist, general | First professional degree | \$166,400 |
| Orthodontist | First professional degree | \$166,400 |
| Physician and Surgeon | First professional degree | \$166,400 |
| Dentist, General | First professional degree | \$166,400 |
| Registered Nurse | Associate's degree | \$55,000 |
| Licensed Practical and Licensed Vocational Nurses | Postsecondary on-the-job training | \$33,900 |
| Pharmacy Technician | Moderate on-the-job training | \$23,700 |
| Nursing Aides, Orderlies, and Attendants | Postsecondary on-the-job training | \$20,500 |
| Home Health Aide | Short-term on-the-job training | \$18,300 |

This is a chart for 10 of the top-paying and high-demand careers in the Health Science cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Cytotechnologist

WHAT: Study cells to look for patterns and abnormalities that might show that a patient has cancer or another disease or infection.

WHO: Cytotechnologists are patient, detail-oriented detectives who use high-powered microscopes and other high-tech tools to uncover signs of disease.



Be Our Guest



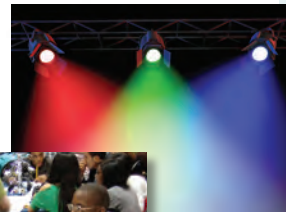
HOSPITALITY & TOURISM

**Do you like learning about different cultures and countries?
Do you enjoy travel or sports? Are you friendly and outgoing?**

Students who like travel or sports, and who enjoy meeting new people, can find plenty of exciting career options in the Hospitality & Tourism cluster. Whether they are front desk clerks or football referees, tour guides or travel agents, professionals in this fast-growing field find work wherever and whenever people gather to play and relax.

What It Takes:

- ✓ Strong English and public speaking skills
- ✓ Love of travel, sports, or learning about other cultures and languages
- ✓ Being organized and on time
- ✓ Professional appearance
- ✓ Enjoyment in working with people



QUICK LOOK

Hospitality & Tourism

| Pathways | Sample Occupations |
|---|-------------------------------------|
| Restaurants and Food/Beverage Services* | Chef and Head Cook |
| Lodging* | Hotel, Motel, and Resort Desk Clerk |
| Recreation, Travel and Tourism* | Meeting and Convention Planner |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|-------------------------------|--------------------|
| Food Service Manager | Related work experience | \$46,900 |
| Meeting and Convention Planner | Bachelor's degree | \$39,100 |
| Gaming Supervisor | Related work experience | \$44,600 |
| Lodging Manager | Related work experience | \$39,400 |
| Self-Enrichment Education Teacher | Related work experience | \$39,900 |
| Chef and Head Cook | Related work experience | \$36,600 |
| Separating, Filtering, Clarifying, Precipitating, and Still Machine Setter, Operator and Tender | Master's degree | \$44,000 |
| Museum Technician and Conservator | Master's degree | \$31,400 |
| Set and Exhibit Designer | Bachelor's degree | \$46,200 |
| Interpreter and Translator | Long-term on-the-job training | \$32,700 |

This is a chart for 10 of the top-paying and high-demand careers in the Hospitality & Tourism cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Hunting Guide

WHAT: Work with guests at Alabama hunting lodges, ranches, and preserves to locate game and get close enough for a good shot.

WHO: Hunting guides have a thorough knowledge of the game being hunted; are able to properly field dress, skin, "cape," and care for game meat; and are able to walk many miles in rough terrain.



Lend a Helping Hand

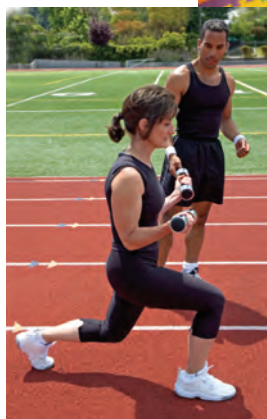
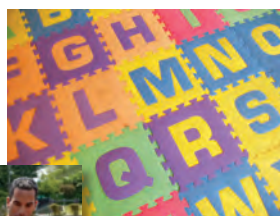


HUMAN SERVICES

Are you a good listener? Do you enjoy helping people with their problems? Are you interested in cosmetology, hair styling, or fitness training? The Human Services cluster is exactly what it sounds like—people helping people. The career opportunities in this field include social work, counseling, and family therapy; they also include being a manicurist, massage therapist, or funeral home director. If you're a helpful person who wants to find a career in which caring counts, explore the options available in Human Services.

What It Takes:

- ✓ Strong English and public speaking skills
- ✓ Patience and compassion
- ✓ The ability to think and act under pressure
- ✓ Specialized skills such as hairstyling or massage therapy
- ✓ Love of working with people



QUICK LOOK

Human Services

| Pathways | Sample Occupations |
|---|-------------------------------|
| Early Childhood Development and Services* | Child Care Worker |
| Counseling and Mental Health Services | Marriage and Family Therapist |
| Family and Community Services* | Clergy Member |
| Personal Care Services* | Skin Care Specialist |
| Consumer Services* | Loan Counselor |
| Fashion* | Apparel Buyer |
| Interior Design* | Cost Estimator |
| Food, Wellness and Dietetics* | Fitness Trainer |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|-----------------------------------|--------------------|
| Property, Real Estate, and Community Association Manager | Bachelor's degree | \$68,300 |
| Director, Religious Activities and Education | Bachelor's degree | \$51,200 |
| Social and Community Services Manager | Bachelor's degree | \$53,300 |
| Marriage and Family Therapist | Master's degree | \$36,100 |
| Counselors, all other | Master's degree | \$35,300 |
| Clergy Member | Master's degree | \$39,600 |
| Substance Abuse and Behavioral Disorder Counselors | Master's degree | \$36,500 |
| Fitness Trainer and Aerobics Instructor | Postsecondary on-the-job training | \$31,800 |
| Social and Human Services Assistant | Moderate on-the-job training | \$21,800 |
| Child Care Worker | Short-term on-the-job training | \$17,500 |

This is a chart for 10 of the top-paying and high-demand careers in the Human Services cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Art Therapist

WHAT: Use art to help children and adults with developmental, physical, or emotional problems improve their health and wellness, or recover from illness or injury.

WHO: Art therapists are caring professionals trained in both art and therapy who work with patients in hospitals, schools, shelters, clinics, art studios, and correctional facilities.



Making Connections

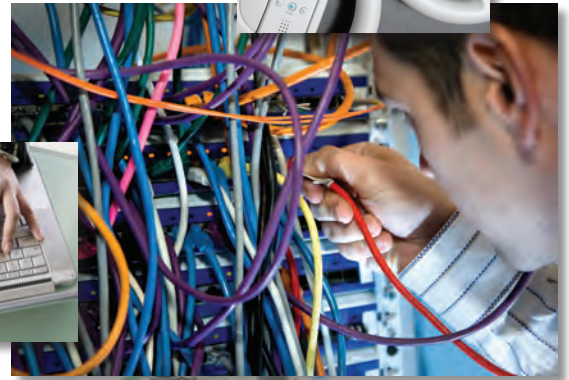
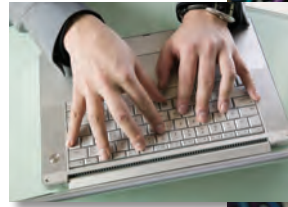


INFORMATION TECHNOLOGY

Do you enjoy working with computers? Are you good at solving puzzles? Do you like taking machines apart and putting them back together? If you're the family computer whiz, enjoy figuring out how things work, and want a fast-paced high-tech career, consider one of the new jobs being created every day in Information Technology (IT). In addition to having top-notch computer skills, people in this field need to be quick-thinking problem solvers who can clearly communicate instructions to others. For students who have what IT takes, jobs are available in nearly every industry across Alabama and around the world.

What It Takes:

- ✓ Strong math, English, and computer skills
- ✓ Problem-solving, organization, and time management skills
- ✓ The ability to adapt and respond quickly to change
- ✓ Teamwork skills



QUICK LOOK

Information Technology

| Pathways | Sample Occupations |
|---------------------------------------|-----------------------------|
| Network Systems* | Database Administrator |
| Information Support and Services* | Computer Support Specialist |
| Programming and Software Development* | Computer Programmer |
| Interactive Media* | Web Designer |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|---|--------------------|
| Computer and Information System Manager | Bachelor's degree or higher, plus related work experience | \$103,300 |
| Computer Software Engineer, systems software | Bachelor's degree | \$87,200 |
| Computer Software Engineer, applications | Bachelor's degree | \$96,200 |
| Computer Specialists, all other | Bachelor's degree | \$71,600 |
| Computer Systems Analyst | Bachelor's degree | \$74,000 |
| Network Systems and Data Communications Analyst | Bachelor's degree | \$61,000 |
| Computer Programmer | Bachelor's degree | \$69,300 |
| Network and Computer Systems Administrator | Bachelor's degree | \$64,000 |
| Database Administrator | Bachelor's degree | \$62,400 |
| Computer Support Specialist | Associate's degree | \$41,300 |

This is a chart for 10 of the top-paying and high-demand careers in the Information Technology cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Remote Sensing Specialist

WHAT: Use pictures and other information from satellites, planes, and ground sensors to gather and plot data about where things are on Earth.

WHO: Remote sensing specialists are IT professionals interested in Earth, space, and high technology.



Serve and Protect



LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

Do you enjoy helping people? Do you like having rules to follow? Are you the leader of a team, club, or project? It isn't easy being responsible for the safety and security of others, but it can be extremely rewarding. If you want to serve and protect your community or country, then Law, Public Safety, Corrections & Security could be the career cluster for you. Future job options include being an emergency medical technician, park ranger, attorney, or security guard.

What It Takes:

- ✓ Strong English and public speaking skills
- ✓ Ability to follow strict rules and meet ethical standards
- ✓ Being organized and on time
- ✓ Desire to help people
- ✓ Teamwork skills



QUICK LOOK

Law, Public Safety, Corrections & Security

| Pathways | Sample Occupations |
|---|--|
| Correction Services | Correctional Officer and Jailer |
| Emergency and Fire Management Services* | Emergency Medical Technician and Paramedic |
| Security and Protective Services | Private Detective and Investigator |
| Legal Services* | Lawyer |
| Law Enforcement Services* | Dispatcher |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|--|--------------------|
| Administrative Law Judge, Adjudicator, and Hearing Officer | Bachelor's degree or higher | \$118,600 |
| Lawyer | First professional degree | \$103,000 |
| Judge, Magistrate Judge, and Magistrate | Bachelor's degree or higher plus work experience | \$44,600 |
| First-Line Supervisor/Manager of Police and Detectives | Related work experience | \$58,800 |
| Criminal Justice and Law Enforcement Teachers, postsecondary | Doctoral degree | \$56,600 |
| First-Line Supervisor/Manager of Fire Fighting and Prevention Workers | Related work experience | \$58,900 |
| Fire Inspector and Investigator | Related work experience | \$50,700 |
| First-Line Supervisor/Manager of Correctional Officers | Related work experience | \$52,500 |
| Emergency Management Specialist | Related work experience | \$44,000 |
| Legal Support Workers, all other | Bachelor's degree | \$41,400 |

This is a chart for 10 of the top-paying and high-demand careers in the Law, Public Safety, Corrections & Security cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Forest Firefighter

WHAT: Fight fires in wilderness areas by digging fire lines and using axes, chainsaws, shovels, and hand- or engine-driven water pumps.

WHO: Forest firefighters are adventurous, physically fit people who enjoy living and working outdoors as part of a firefighting crew.



Designing and Producing Results



MANUFACTURING

Do you enjoy designing or building things? Would you like to work in a factory?
Do you like using new technology? If you're fascinated by the way things work, then you might enjoy exploring the manufacturing career cluster. Jobs in this high-tech field involve planning, managing, and performing the processing of materials into intermediate or final products. Nearly every product we wear, use, and drive was produced by a highly skilled team of manufacturing professionals.

What It Takes:

- ✓ Strong math, English, and computer skills
- ✓ Imagination and attention to detail
- ✓ Being organized and on time
- ✓ Time management and teamwork skills
- ✓ Ability to follow and give directions



QUICK LOOK

Manufacturing

| Pathways | Sample Occupations |
|--|--|
| Production* | Model Maker, Metal and Plastic |
| Manufacturing Production Process Development | Industrial Engineering Technician |
| Maintenance, Installation, and Repair* | Medical Equipment Repairer |
| Quality Assurance | Medical Appliance Technician |
| Logistics and Inventory Control | Production, Planning, and Expediting Clerk |

*Denotes Alabama pathway



10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|-----------------------------------|--------------------|
| Industrial Production Manager | Related work experience | \$80,800 |
| Purchasing Agents, except wholesale, retail and farm products | Related work experience | \$56,200 |
| Chemical Plant and System Operator | Long-term on-the-job training | \$54,500 |
| First-Line Supervisor/Manager of Mechanics, Installers, and Repairers | Related work experience | \$53,900 |
| Power Plant Operator | Long-term on-the-job training | \$58,800 |
| First-Line Supervisor/Manager of Production and Operations Workers | Related work experience | \$50,400 |
| Industrial Engineering Technician | Associate's degree | \$40,100 |
| Telecommunications Equipment Installer and Repairer, except line installer | Long-term on-the-job training | \$52,300 |
| Radio, Cellular, & Tower Equipment Installer and Repairer | Postsecondary on-the-job training | \$44,000 |
| Mechanical Engineering Technician | Associate's degree | \$39,900 |

This is a chart for 10 of the top-paying and high-demand careers in the Manufacturing cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Multicraft Automotive Technician

WHAT: Work as a highly skilled technician at one of the more than 200 auto production plants in Alabama.

WHO: Multicraft automotive technicians are skilled in electronics, hydraulics, programmable logic controllers, welding, machine tool technology, and robotics, as well as problem solving and team building.



Sold on Success



MARKETING

SOLD



Are you good at convincing your friends to follow your lead? Do you enjoy art, writing, or public speaking? Are you friendly and outgoing?

If you enjoy meeting new people and like selling things, then the Marketing cluster could provide the background you need to succeed. Companies big and small need talented salespeople, customer service representatives, buyers, and brokers. This cluster is also the home of creative types, including web designers and fashion merchandisers. So if you like creating things to sell or have a knack for making a sale, check out the options available in Marketing.

What It Takes:

- ✓ Strong communication, math, and technical skills
- ✓ Creativity
- ✓ Organization and time management skills
- ✓ Professional appearance
- ✓ Enjoyment in working with people



QUICK LOOK

Marketing

| Pathways | Sample Occupations |
|---------------------------------------|--------------------------|
| Professional Sales, Sales Management* | Real Estate Broker |
| Merchandising* | Counter and Rental Clerk |
| Marketing Communications* | Market Research Analyst |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|---|-----------------------------------|--------------------|
| Real Estate Broker | Related work experience | \$44,800 |
| Sales Representative, Wholesale and Manufacturing, technical and sales products | Moderate on-the-job training | \$82,300 |
| Real Estate Sales Agents | Postsecondary on-the-job training | \$47,500 |
| Market Research Analysts | Bachelor's degree | \$53,300 |
| Sales Representative, Wholesale and Manufacturing, except technical and sales | Moderate on-the-job training | \$45,800 |
| Wholesale and Retail Buyers, except farm products | Related work experience | \$42,600 |
| Door-to-Door Sales Workers, News and Street Vendors, and Related Workers | Short-term on-the-job training | \$22,200 |
| Procurement Clerks | Short-term on-the-job training | \$35,500 |
| Customer Service Representatives | Moderate on-the-job training | \$26,900 |
| Order Clerks | Short-term on-the-job training | \$24,300 |

This is a chart for 10 of the top-paying and high-demand careers in the Marketing cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Floral Designer

WHAT: Cut and arrange live, dried, and silk flowers and other greenery into attractive displays for individuals, businesses, events, and special occasions.

WHO: Employers generally look for high school graduates who have creativity and excellent customer service skills, a flair for arranging flowers, and a desire to learn. Skills are learned on-the-job.



Better, Safer, Faster



SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS



Do you get good grades in math and science? Are you good at fixing, designing, or building things? Do you like working on projects as part of a team? What do iPods, cell phones, and your favorite video game all have in common? They were all created by talented STEM (Science, Technology, Engineering & Mathematics) professionals. The STEM cluster prepares students for exciting and challenging careers—many of which haven't even been created yet. Whether you dream of curing disease; developing new energy sources; or creating better, safer, faster ways to communicate, travel, and work, explore the possibilities available in STEM.

What It Takes:

- ✓ Strong math, science, and communication skills
- ✓ Focus and attention to detail
- ✓ Being organized and on time
- ✓ Being interested in using high-tech tools to solve problems
- ✓ Enjoyment in working on a team



QUICK LOOK

Science, Technology, Engineering & Mathematics

| Pathways | Sample Occupations |
|-----------------------------|-------------------------------------|
| Engineering and Technology* | Marine Engineer and Naval Architect |
| Science and Mathematics | Conservation Scientist |

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|--|--------------------|
| Computer and Information Scientist, research | Doctoral degree | \$101,700 |
| Engineers, all other | Bachelor's degree | \$108,100 |
| Aerospace Engineer | Bachelor's degree | \$111,300 |
| Electronics Engineer, except computer | Bachelor's degree | \$91,500 |
| Chemical Engineer | Bachelor's degree | \$87,000 |
| Industrial Engineer | Bachelor's degree | \$72,900 |
| Electro-Mechanical Technician | Associate's degree | \$38,300 |
| Career and Technical Education Teachers, postsecondary | Bachelor's degree or higher plus work experience | \$48,500 |
| Chemical Technician | Associate's degree | \$38,300 |
| Surveying and Mapping Technician | Moderate on-the-job training | \$30,700 |

This is a chart for 10 of the top-paying and high-demand careers in the Science, Technology, Engineering & Mathematics cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Sound Engineer

WHAT: Operate machines and equipment to record, synchronize, mix, or reproduce music, voices, or sound effects in sporting arenas, theater productions, recording studios, or movie and video productions.

WHO: Sound or broadcast engineers have specialized computer, electronics, and engineering training related to the operation of high-tech recording and broadcast equipment. Since sound technology changes rapidly, sound engineers need to stay updated on the latest advances in equipment and techniques.



On the Fast Track



TRANSPORTATION, DISTRIBUTION & LOGISTICS

Are you a NASCAR, boating, or BMX fan? Do you like to travel? Are you good at operating tools and machinery? How do people and products get where they need to go? Transportation, Distribution & Logistics professionals map out the routes, plan the schedules, and operate the cars, planes, trains, ships, buses, trucks, and other vehicles that deliver cargo to its proper destination. This fast-moving career cluster also prepares people for a variety of jobs at warehouses and distribution centers, at seaports and airports, and in all branches of the military.

What It Takes:

- ✓ Strong math, science, and computer skills
- ✓ Attention to detail
- ✓ Being organized and on time
- ✓ Ability to think and act quickly
- ✓ Strength and coordination



QUICK LOOK

Transportation, Distribution & Logistics

Pathways

Transportation Operations
 Logistics Planning and Management Services
 Warehousing and Distribution Center Operations
 Facility and Mobile Equipment Maintenance*
 Transportation Systems/Infrastructure Planning
 Sales and Service

Sample Occupations

Sailor and Marine Oiler
 Logistician
 Tank Car, Truck, and Ship Loader
 Motorcycle Mechanic
 Traffic Technician
 Cargo and Freight Agent

*Denotes Alabama pathway

10 HIGH-WAGE, HIGH-DEMAND CAREERS

| Occupation | Education Required | Avg. Annual Salary |
|--|-----------------------------------|--------------------|
| Airline Pilots, Co-Pilots, and Flight Engineers | Bachelor's degree | \$90,000 |
| Air Traffic Controller | Long-term on-the-job training | \$97,000 |
| Logistician | Bachelor's degree | \$80,300 |
| Commercial Pilot | Postsecondary on-the-job training | \$80,300 |
| Captains, Mates, and Pilots of Water Vessels | Related work experience | \$87,300 |
| Railroad Conductor and Yardmaster | Moderate on-the-job training | \$44,800 |
| Ship Engineer | Postsecondary on-the-job training | \$50,200 |
| Aerospace Engineering and Operations Technician | Associate's degree | \$55,700 |
| Bridge and Lock Tender | Short-term on-the-job training | \$51,200 |
| First-Line Supervisors/Managers of Transportation and Material-Moving Machine and Vehicle Operator | Related work experience | \$48,300 |

This is a chart for 10 of the top-paying and high-demand careers in the Transportation, Distribution & Logistics cluster in Alabama. Wages are based on the May 2010 release from the Occupational Employment Statistics (OES) Unit. Education requirements are provided by the Bureau of Labor Statistics, U.S. Department of Labor. Source: Alabama Department of Industrial Relations, Labor Market Information Division.



Avionics Technician

WHAT: Test, maintain, design, and produce aviation electronics, including missile-guidance systems, jet engines, and flight-control equipment.

WHO: Avionics technicians are highly skilled, detail-oriented, and curious people who constantly learn new things to stay up-to-date on the latest aviation technologies.



There's a Place for You

Whatever you like to do or want to learn, there's a place for you in the co-curricular activities and organizations at your high school. See what's available, and then sign up to try new things, meet new people, and develop new skills.

One of the best ways to gain experience and see what it is really like to work in specific careers is by joining a career and technical student organization, or CTSO.

What's a CTSO?

Thousands of Alabama students in middle schools, high schools, colleges, and universities participate in CTSOs. Under the guidance of adult mentors, including teachers and community members, students with a shared career interest develop the "soft skills" needed for career success. These skills include:

- ◆ Time management
- ◆ Organization
- ◆ Interviewing
- ◆ Resume writing
- ◆ Teamwork
- ◆ Public speaking
- ◆ Networking
- ◆ Leadership

Why Should I Join?

In addition to learning new things and meeting new people, students who participate in Alabama CTSOs have the chance to test their career and technical skills in local, regional, and national competitions. You could earn medals, trophies, and even scholarship money by doing well in these competitions.

How Can I Sign Up?

With the Alabama SUCCESS program, CTSOs will be linked to clusters and pathways, so every student in the state will have the opportunity to participate. Once you choose a career cluster and pathway, you can see the related CTSOs that are available at your school. Many programs of study include more than one CTSO option.

Alabama CTSOs

Listed at right are the national CTSOs with local chapters at public high schools throughout Alabama.

Choose an Organization



Distributive Education Clubs of America (DECA)

DECA, a national association of more than 170,000 marketing students, provides members with hands-on experiences in the fields of marketing, management, and entrepreneurship.



Family, Career and Community Leaders of America (FCCLA)

FCCLA offers Alabama students the opportunity to expand their leadership potential and develop skills for life, such as planning, goal setting, problem solving, decision making, and interpersonal communication.



FFA (association for agriscience education students)

FFA members develop their potential for leadership, personal growth, and career success through agricultural education, competitions, and conferences.



Future Business Leaders of America-Phi Beta Lambda (FBLA-PBL)

FBLA-PBL is the largest business student organization in the world. Its mission is to prepare today's students for success in business leadership.



Health Occupations Students of America (HOSA)

HOSA's mission is to enhance the delivery of compassionate, quality health care by providing opportunities for knowledge, skill, and leadership development of all health science technology students.



SkillsUSA (association for students in technical, skilled, and service careers, including health careers)

Alabama SkillsUSA emphasizes respect for the dignity of work, high standards in trade ethics, superior workmanship, quality, and safety.



Technology Student Association (TSA)

TSA prepares students to meet the challenges of a high-tech world by promoting technological literacy, leadership, and problem-solving skills. Members have opportunities to develop and showcase their technology skills through individual and team competitions.

REAL-LIFE REPORT

NAME: Jamey Jones

EDUCATION:

**West Point High School, Cullman;
Wallace State Community College,
Hanceville—Machine Tool Technology,
Associate in Applied Science Degree**



Jamey Jones is a top machinist in Axsys Technologies' mill department. Each day, he uses the math skills learned in his high school geometry and trigonometry classes, and the precision machining skills he developed at Wallace State to operate CNC (computer numerical control) machines.

"I'm given a sketch or a blueprint of a productive part, and then set up the computer-generated machine to produce that part. All of the math courses I took in high school prepared me for college and my job. I like what I do because I am doing and learning something different every day, plus I know that as a machinist I can make good money and provide for my family."

REAL-LIFE REPORT

NAME: Kendra Key

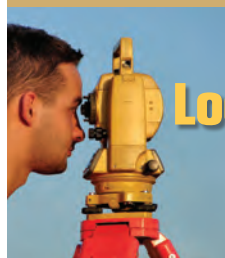
EDUCATION: Paul Bryant
High School, Tuscaloosa

CTSO: Future Business
Leaders of America



Kendra is a member of Alabama Future Business Leaders of America (FBLA-PBL)—one of the nation's largest chapters, with more than 15,000 student members. In 2006, she was selected to serve as a founding member of State Farm's Youth Advisory Board, representing the Southern zone (Mississippi, Georgia, South Carolina, and Alabama). More than 600 students applied for the post, which included a \$5,000 scholarship.

"Having the opportunity to serve on the National State Farm Youth Advisory Board was an absolute life-changing experience. I went to Washington, D.C., to serve as the mistress of ceremonies for the first ever National Teen Driver Safety Summit, and I traveled to St. Louis to speak at the National Youth Institute hosted by the American Red Cross. None of this would have been possible without the leadership training that FBLA provided me."



Looking Ahead

As you start exploring career opportunities, you'll learn what work experience, training, courses, and degrees are needed beyond high school for every job that interests you. One or more of these postsecondary (meaning "after high school") options might be in your future.

Apprenticeship Learn a craft or trade from a skilled craftsman or master trades worker (such as a carpenter, cabinetmaker, or plumber) through supervised, full-time work that meets Alabama state standards. At the end of your apprenticeship, you'll receive a nationally recognized Certificate of Completion.

Community College Affordable community colleges—including technical colleges, where students can study fields such as automotive technology, culinary arts, and welding—are located in every region of Alabama. Here you can earn a two-year associate's degree to prepare you for immediate entry into your career or to launch you directly into a four-year college or university.

Four-year College or University Alabama offers students state and private colleges and universities in urban, suburban, and rural settings. The Alabama Student Assistance Program, a state-supported and federally funded grant program, helps support financially needy students who want to attend college in Alabama. Nearly 80 Alabama schools participate in the program.

Military Service All branches of the U.S. military, including the Army, Navy, Air Force, Marines, and Coast Guard, provide skills training, financial aid for college, and career opportunities in return for three or more years of service. Some people choose the military as a long-term career. Others use their military experience to prepare for college or for a career in private industry or public service.

On-the-Job Training After earning a high school diploma, some graduates immediately start earning money as an entry-level employee. Through on-the-job training, they are able to learn new skills and gain valuable work experience.



It's All About You

What Do YOU Want to Do?

Create your own plan for SUCCESS. Now that you've learned about Alabama's 16 career clusters and all of the opportunities available to you through Alabama SUCCESS, you're ready to start making some important decisions about your future.

Fill out as much as you can in this planner. Then, sit down with your parents and/or counselor to create an Alabama Education Plan that will help you reach your goals.

MY EDUCATION & CAREER PLAN

Name: _____ Age: _____
School: _____ Grade: _____
Alabama Town/City: _____
E-mail: _____

My Top Talents:

- _____
- _____
- _____

My Favorite Interests:

- _____
- _____
- _____

My Greatest Strengths:

- _____
- _____
- _____

Things I Need to Work On:

- _____
- _____
- _____

Activities or Subjects that Interest Me:

- _____
- _____
- _____

Things I Belong To:

(activities, clubs, organizations, etc.)

- _____
- _____
- _____

My Experiences:

(meaningful things I've done in the past)

- _____
- _____
- _____

Career Clusters that Interest Me:

- _____
- _____
- _____

Career Pathways that Interest Me:

- _____
- _____
- _____

Careers that Interest Me:

- _____
- _____
- _____

Steps I Need to Take to Reach My Career Goal:

- _____
- _____
- _____

School Subjects Related to My Career Goal:

- English
- Math
- Science
- Social Studies
- Foreign Language
- Career and Technical
- Electives

High School Diploma Endorsement I Want to Earn (see page 3):

Postsecondary Degree(s) or Certification I Want to Earn:

- _____
- _____
- _____

My Work Experience:

- _____
- _____
- _____

CTSOs Related to My Career Interests:

- _____
- _____
- _____

My To-Do List

- Talk about careers and courses with my parents, guardians, and school counselor.
- Do job shadowing or an internship.
- Research careers online.
- Volunteer.
- Find out what advanced or special courses my high school offers.
- Talk to my family about paying for education after high school.
- Update this planner as things change.

WHAT DOES THAT MEAN



Some of the terms and names used in this guide may be new to you. **No problem.** We've created this little glossary to help answer some of the questions that might come up as you look through the pages of this guide and at other career information, and discuss what you learn with your parents. Your school counselor can also explain any confusing or new phrases or titles, so don't be afraid to ask. We're all here to help you get the information you need to dream big dreams and plan for your successful future.

Articulation agreements: formal agreements between or among educational organizations (high schools, community colleges, and universities) that allow students to receive college credit for courses taken in high school.

Associate's degree: a two-year degree awarded by a community college.

Bachelor's degree: a four-year degree awarded by a college or university.

Career and technical student organizations (CTSOs): co-curricular organizations for students that offer activities and competitions related to particular careers.

Career Clusters: identifies pathways from high schools to two- and four-year colleges, technical schools, graduate schools, apprenticeship programs, and workplace so that learners can recognize the relationship between what they learn in school and what they can do in the future.

Career Pathways: pathways are sub-groupings of occupations/career specialties. Occupations/Career specialties are grouped into Pathways based on the fact that they require a set of common knowledge and skills for career success.

Doctoral degree: a degree awarded by universities for study beyond a master's degree. May also be called a Ph.D. or a first professional degree.

Dual enrollment: a program between Alabama public colleges and universities and local boards of education that allows high school students to enroll in certain approved college-level courses to receive both high school and college credit.

ECEP (Early College Enrollment Program): a program that allows juniors and seniors to have full-time enrollment at an Alabama public college or university while still graduating with their class and staying involved with high school activities.

Extended learning experiences: participation in career and technical student organizations, co-curricular activities, job shadowing, internships, or community service.

Internship: an extended learning experience that gives students an opportunity to work temporarily at an entry-level job in a career that interests them.

Job shadowing: an extended learning experience in which students observe professionals in particular careers as they go through a day on the job.

Master's degree: a degree awarded by universities for study beyond a bachelor's degree.

Postsecondary education: education beyond high school. Middle and high school are referred to as *secondary education*, so *postsecondary* means after high school.

STARS (State Transfer & Articulation Reporting System): STARS System allows public two-year students in Alabama to obtain a Transfer Guide/Agreement for the major of their choice. This guide/agreement, if used correctly, guides the student through their first two years of coursework and prevents loss of credit hours upon transfer to the appropriate public four-year university in Alabama.

Resource Shelf

Use these websites and other resources available from your school counselor to learn more about careers, career clusters, and educational and job opportunities in high school and beyond.

ACCESS

ACCESS (Alabama Connecting Classrooms, Educators, and Students Statewide) Distance Learning provides opportunities and options for Alabama public high school students to engage in advanced placement (AP), elective, and other courses to which they may not otherwise have access.

Alabama Career Information Network

This new Web portal increases Alabama students' and families' access to valuable career exploration activities and college financial aid information.

Alabama Commission on Higher Education

Click on "Colleges & Universities" within this website for a list of four-year institutions in Alabama.

The Alabama Community College System

Learn all about the public and private two-year colleges in Alabama. Connect directly to each school's website to see the courses, majors, degrees, and scholarships it offers to Alabama students.

Alabama Tech Prep

This booklet is sponsored by Alabama Tech Prep. The goal of Tech Prep is to create a smooth transition from high school to college and to a career.

Alabama Virtual Library

This Alabama Legislature-funded site provides all students, teachers, and citizens of the State of Alabama with online access to essential library and information resources.

America's Career InfoNet

Use this site to search for occupational information, industry information, and state-specific labor market information.

Career Voyages

This career planning resource helps students, parents, career changers, and career advisors.

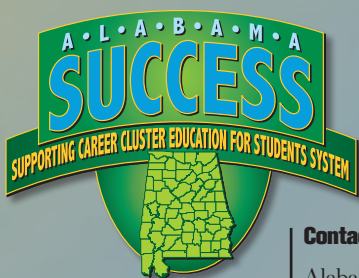
O*NET (Occupational Information Network)

O*NET provides full information on occupations, including state-by-state salary data, employment prospects, and skill matching for students.

U.S. Department of Labor Occupational Outlook Handbook

A valuable resource for both counselors and students, this federal website offers updated information on careers, job responsibilities and working conditions, salaries, and what jobs will be available in the future.

Alabama Career Clusters and Pathways



Contact Information

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