Take Care of Business

Your Guide to Careers in Business Management & Administration

- Showcasing 25 Careers
- High School Personal Graduation Plans
- Inside College Admissions

Texas CTE

In Action

A College and Career Planning Guide

Texas CTE

Your journey starts here.
Dear Texas Student,

You are probably tired of people asking, “What do you want to be when you grow up?” Some students know exactly what they want to do, but most haven't got a clue. The idea of choosing a career is intimidating, and it feels like it's far in the future. There's little time in the commotion of classes, activities, sports, work, and fun to think about what career you want to pursue after graduation from high school or college.

It pays, though, to take the time to think about your future career. The truth is that you'll save a lot of time and money if you have a direction in life, as opposed to just finishing high school and worrying about it later. It's really a matter of dollars and sense. If you choose a career direction now, you can select classes and activities that will make you highly marketable—and highly paid—when you look for work. And it only makes sense to have an idea of what you want to do rather than just wandering aimlessly through school.

Nobody wants that. Not your parents. Not your teachers. Not your friends. They want you to be somebody. They want you to use your talents, follow your interests, and pursue your ambitions to become great at what you love to do in life. That's what you should want, too.

So the time is right to take charge of your life and think about the future. You need a plan of action for how to get from where you are today to where you want to be in a few years: starting out on a personally and professionally rewarding career.

That's what Texas CTE is all about. The guide you are holding is one of 16 guides to different career clusters. It is designed to help you make smarter decisions about your education and career options.

You've heard the phrase, “Information is power.” Well, this guide is power. It puts you squarely in charge of your future, from creating High School Personal Graduation Plans (see page 5) to choosing college or some other form of education or training after high school. Work with your parents, teachers, and counselors to make decisions, but remind everyone that it is your future at stake and that you are taking charge of it.

Get information. Get a plan. Get a clue about your career direction. It's alright if that direction changes; choosing a direction now is better than having no direction at all. Just promise yourself that you'll make smart choices about where to focus your time, energy, and passion.

We're proud that you are taking steps to plan your career direction, and we pledge that your school, teachers, and counselors will do all they can to help you make wise choices on your plans for success. We wish you the best of luck on your journey.
The Wide World of Business

Business touches everything in your world. It’s behind the food you eat, the vehicles you drive, the clothes you wear—every product or service you consume is the result of a business somewhere organizing the people, money, materials, and other resources to deliver that product or service to you. From chief executive officers (CEOs) overseeing worldwide organizations of hundreds of thousands of workers to receptionists answering phones, well-educated employees make businesses run more smoothly and profitably. The skills you learn in Business Management & Administration can make you an attractive job applicant for any company. If you see yourself managing teams of people to get projects done, crunching numbers to keep costs down, or becoming an entrepreneur and starting your own venture, then Business Management & Administration could be the right career cluster for you.

Texas has launched a strategic plan that targets state efforts on six industry clusters that economists say will be the engines of economic growth in Texas. As you plan your future, think about a career in one of these new and emerging sectors.

- Advanced Technologies & Manufacturing
  - Molecular technologist
  - Sensor/robotics engineer

- Aerospace & Defense
  - Aerospace engineer
  - Unmanned autonomous vehicle engineer

- Biotechnology & Life Sciences
  - Bioinformatics specialist
  - Biocontainment technician

- Information & Computer Technology
  - System integrator
  - Computer game developer

- Petroleum Refining & Chemical Products
  - Petrochemical engineer
  - Refinery process design engineer

- Energy
  - Wind/solar energy engineer
  - Geophysical (oil and gas) prospector

Students are automatically admitted, as space permits, to the McCoy College of Business Administration at Texas State University–San Marcos if their SAT scores are 1,200 or greater, if their ACT scores are 27 or greater, or if they are in the top 25 percent of their Texas high school graduating class.
THE FIRST STEP toward success is making smart decisions about your education and career options.

Plan for Success

When I was in high school,” says Sheryl Kovach, human resources director of environmental services at Phillips Services Corporation, in Houston, “the only job that I even knew about was receptionist work. I didn’t aspire to be a manager or entrepreneur because I really didn’t know about those disciplines. I was just looking forward to graduating. That was it. I really didn’t know what it was I wanted to do.”

Sound familiar? You, too, may not have a clue about what to do with your life.

Don’t worry, though. Help is right here in your hands. This magazine is your guide to education and career choices that can shape your future. It’s one of 16 career cluster guides published by Texas CTE (www.txcte.org). This edition is all about Business Management & Administration.

Let’s start with some basic steps you should take to get organized, plan for the future, and start on the road to success.

Assess Your Talents and Abilities

First, you need to figure out some things about yourself. This step can be as simple as writing down a list of your interests (like video games or rock climbing), your hopes and dreams (like helping others), your talents (like writing or math ability), and your weaknesses (if you’re squeamish at the sight of blood, for example, you might not want to be a doctor).

Follow up on this informal exercise by taking some formal assessments to determine your interests and abilities. Common assessments include Texas Genuine (www.texasgenuine.org) and CareerTech (www.careertech.org). Ask your principal or counselor about the career assessments available at your school.

Research Your Career Options

Once you’ve learned about yourself, learn more about your career options. There are thousands of occupations out there of which you may never have heard, and others that do not yet exist because the technologies

IN 2014, FINANCIAL TIMES NAMED THE MAYS BUSINESS SCHOOL MBA PROGRAM AT TEXAS A&M UNIVERSITY AS THE BEST VALUE AND RETURN ON YOUR EDUCATION INVESTMENTS AMONG MBA PROGRAMS IN THE U.S.
have not been developed. Fortunately, there are plenty of resources (see inside back cover) for you, and they are as close as the nearest computer.

One of the most helpful is the Texas Career Check from the Texas Workforce Commission. It is a vast database of information about hundreds of professions. You can find Texas Career Check at www.texascareercheck.com. Another good place to start is O*NET (www.onetcenter.org).

Gather information about what you can earn in the careers in which you are interested. Find out whether the careers you are considering have a promising future—are they adding or losing jobs? Check out the education you’ll need to enter those careers.

The chart on pages 10–11 presents data on 25 possible professions. Remember, though, that these are just a sampling of careers available in the cluster. Go to Texas Career Check, O*NET, or another resource to investigate other careers.

Create Your High School Graduation Plan

Once you have a better idea of your interests and abilities, you are ready to plan for high school and beyond. The High School Personal Graduation Plan is your plan for preparing for the career of your choice.

First, you should choose a career cluster and an endorsement, not a particular occupational goal. In the eighth grade you might choose Business Management & Administration leading to a Business & Industry Endorsement and then later become interested in a narrower field such as human resources or business management.

The program of study you choose—your plan—does not stop with graduation from high school. You could then pursue a two-year degree as human resource manager or a four-year degree as a business administrator.

You should set up a High School Personal Graduation Plan that takes you through career preparation after high school, revising your blueprint as needed as you go along. If your career plans include college study, ask your counselor about tests required for admission to college, such as the PSAT, SAT, or ACT.

Seek Out Special Programs

Many Texas schools offer innovative programs to prepare students for specific career areas. These include career and technical education (CTE) programs, academies, and magnet schools. Once you’ve decided on a career direction, ask your counselor about special programs in your area that may provide related experiences in your chosen career.

Samuel Odamah, enrolled in the architecture program at the University of Texas at Arlington, having found his career calling at Dallas’s Skyline Career Development Center, a high school with career programs in a number of different fields.

“Skyline is one of the few schools in the country that offers programs in architecture,” Odamah says. “In some careers, Skyline students could even get professional certifications or licenses right in high school. It was a great place because you could find out whether you really wanted to enter a career.”

Odamah says that the career cluster system at Skyline taught him the value of planning for his career and his life. “We learned about planning ahead,” he says. “Those who plan things ahead of time don’t have to catch up. It’s just a matter of what a person wants out of life. Planning gives you a better platform for success.”

Business Management & Administration CTSOs

One of the best ways to acquire out-of-class experience in your chosen career is by joining a career and technical student organization (CTSO). In Business Management & Administration, the most helpful CTSOs are:

- Business Professionals of America (BPA) www.texasbpa.com
- DECA, Texas Association www.texasdeca.org
- Future Business Leaders of America (FBLA) www.fblatx.org
A career cluster is a group of occupations and broad industries that share certain features. The Business Management and Administration cluster, for example, includes marketing manager and research analyst. Texas has adopted 16 Career Clusters (see back cover), the same ones designated and developed by the U.S. Department of Education.

As the graphic below shows, within each cluster are programs of study, which are more specific groupings of similar occupations. Think of a program of study as being like a college major. In Business Management and Administration, you might choose to focus on Human Resources in high school and college.

**Related Occupations**
Each career pathway in a particular cluster includes a range of related occupations; human resources manager is an example of an occupation that falls within Human Resources.

Choosing a career cluster and career pathway will help you acquire the knowledge and skills you'll need to enter your chosen career. It will allow you to follow a seamless course of study from high school into college or other postsecondary education or training. The electives you choose can complement your core academic classes to prepare you for the challenges of the real world of work.

**Review Your High School Personal Graduation Plan Each Year**
Don't get locked into a cluster and program of study you don't like. You should reexamine your 4-year plan at least once a year and change programs or clusters if your interests have changed. Choosing a cluster and program of study, even if it changes later, means that you'll have a direction in life. The idea is to be aware of what's going on in your life and take control of your future. When you know where your education is going and why, your classes will become more meaningful. You'll make contact with students, teachers, and employers who share your interest in a particular career area. You'll have experiences that are fun and exciting. You'll be on your way to success in school, in a career, and in life.

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### Programs of Study

- **Administrative & Information Support**
- **Business Analysis**
- **Business Financial Mgmt. & Accounting**
- **Human Resources**
- **Management**
- **Marketing**

### Example Occupations

- **Office Manager**
- **Research Analyst**
- **Financial Officer**
- **Human Resources Manager**
- **Business Executive**
- **Marketing Manager**
**WHAT IS A High School Personal Graduation Plan?**

It’s a smart idea to create a High School Personal Graduation Plan, or 4-year plan, to guide your studies through high school and into college or other postsecondary education or training. Your 4-year plan represents your chance to take control of your education and career choices. Working with your parents/guardians and guidance counselor, you can pick the cluster on which you want to focus your studies as well as your career and postsecondary education goals. Don’t worry. You aren’t locked into your choices. You should revisit your 4-year plan at least once a year to update it. You can change clusters, programs of study, and career and postsecondary goals as your interests and ambitions change. Having a plan—even if it changes—is smarter than having no idea of what you want to do and why you are attending school. Here’s how to fill out your 4-year plan.

**CHOOSE** a career cluster on which to focus your high school and college or postsecondary studies. The idea is to offer you a seamless route to follow from high school, through college or other postsecondary education, and into a career. Not all Texas schools offer all clusters, so ask your guidance counselor which clusters are available at your school.

**PLAN** for what you want to do after high school. Your goal may be to attend a four-year university or two-year college, join the military, or enter an apprenticeship program. Your postsecondary goal should influence the classes you take in high school; for example, you will need certain course credits to qualify for admission to a college.

**SKETCH** out your schedule of classes for your high school years. You will spend time completing requirements for the Foundation High School Program including electives to earn your endorsement in Business & Industry (26 credits). Planning your 4-year plan will help you get the education and experience you need to start your postsecondary and career goals.

**PICK** extended learning activities that complement your classes (see page 14). Work on community service projects. Plan for paid and unpaid career learning experiences, such as job shadowing and internships. All these extracurricular activities can give you experience that will help you get into college or land a job.

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**High School Personal Graduation Plan**

**Name:** Taylor Jones, West High School  
**Endorsement:** Business & Industry  
**Cluster:** Business Management & Administration  
**Program of Study:** Management  
**Career Goal:** Business Executive  
**Postsecondary Goal:** Master’s Degree in Business Administration

<table>
<thead>
<tr>
<th>Program Requirements (22 Credits)</th>
<th>Business and Industry Endorsement Requirements (26 Credits)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>English Language Arts (4 Credits)</strong></td>
<td><strong>Math (1 Additional Credit)</strong></td>
</tr>
<tr>
<td>English I</td>
<td>Science (1 Additional Credit)</td>
</tr>
<tr>
<td>English II</td>
<td>Career Related Elective (2 Additional Credits)</td>
</tr>
<tr>
<td>English III</td>
<td><strong>EXAMPLE CAREER RELATED ELECTIVES</strong></td>
</tr>
<tr>
<td>English IV</td>
<td>Principles of Business, Marketing &amp; Finance</td>
</tr>
<tr>
<td>Advanced English Course</td>
<td>Business Information Management</td>
</tr>
<tr>
<td><strong>Mathematics (3 Credits)</strong></td>
<td><strong>Economics (one-half credit)</strong></td>
</tr>
<tr>
<td>Algebra</td>
<td>Accounting I</td>
</tr>
<tr>
<td>Geometry</td>
<td>Business Law</td>
</tr>
<tr>
<td><strong>Science (3 Credits)</strong></td>
<td>Business Management</td>
</tr>
<tr>
<td>Biology</td>
<td>Practicum in Business Management</td>
</tr>
<tr>
<td><strong>IPC or Advanced Science Course</strong></td>
<td><strong>Distinguished Level of Achievement</strong></td>
</tr>
<tr>
<td>Advanced Science Course</td>
<td><strong>4 Credits in Mathematics (Must complete Algebra II)</strong></td>
</tr>
<tr>
<td><strong>Social Studies (3 Credits)</strong></td>
<td><strong>Requirements for at least the Business and Industry Endorsement remaining requirements</strong></td>
</tr>
<tr>
<td>U.S. History</td>
<td><strong>Performance Acknowledgement</strong></td>
</tr>
<tr>
<td>U.S. Government (one-half credit)</td>
<td>Outstanding performance</td>
</tr>
<tr>
<td>Economics (one-half credit)</td>
<td>- in a dual credit course</td>
</tr>
<tr>
<td>World Geography (one-half credit)</td>
<td>- in bilingualism and biliteracy</td>
</tr>
<tr>
<td><strong>Physical Education (1 Credit)</strong></td>
<td>- on an AP test or IB exam</td>
</tr>
<tr>
<td><strong>Fine Arts (1 Credit)</strong></td>
<td>- on the PSAT, the ACT-Plan, the SAT, or the ACT</td>
</tr>
<tr>
<td><strong>Career Related Electives (6 Credits)</strong></td>
<td>- earning a nationally or internationally recognized business or industry certification</td>
</tr>
<tr>
<td><strong>Proficiency in Speech (Determined locally)</strong></td>
<td><strong>Performance Acknowledgement</strong></td>
</tr>
</tbody>
</table>

**Curricular Experiences:** Business Professionals of America (BPA), DECA, Future Business Leaders of America (FBLA)  
**Extracurricular Experiences:** Junior Achievement USA, Language Tutor, School Class Officer, School Newspaper, UK, Yearbook  
**Career Learning Experiences:** Career Preparation—Part and Unpaid, Job Shadowing, Internship  
**Service Learning Experiences:** Boys and Girls Club of America, Community Service Volunteer  

A **CAREER PORTFOLIO** (see page 15) is a good way to organize information about your educational experiences, record results of career interest and abilities assessments, and hold examples of your best work. Include a 4-year plan in your portfolio.
You can write your own ticket to success in Business Management & Administration. This cluster represents one of the fastest-growing and highest-paying groups of jobs in the United States.

“There is a desperate need for trained business professionals,” says Jamie Belinne, assistant dean of the Rockwell Career Services Center in the University of Houston's Bauer College of Business. You can take your pick: jobs with many openings include accountants, administrative assistants, bookkeepers, desktop publishers, meeting planners, office managers, personnel recruiters, public relations specialists, and store managers.

The Bottom Line

While the jobs vary widely, you can count on one thing. “The bottom line in business is the bottom line,” says Belinne. “You can’t be too afraid of numbers.”

But don’t think business is just boring number crunching. For instance, if you like solving mysteries and are good with numbers, the FBI might hire you as an accountant. “Our country loses a lot of money to white-collar crime each year,” explains Belinne. “If you really enjoy investigating and don’t mind going through mounds of information to get to the bottom of a mystery you would probably enjoy accounting.”

A business career could take you to exotic places as well. Ron Zimmerman, chief executive officer of the Houston pharmaceutical company PLx Pharma, has lived in England, Russia, and Kazakhstan. He helped bring energy and mining companies to the latter, a former Soviet republic. The company developed oil fields to pump jobs and revenue into the economy.

Excellent Pay and Prospects

Whether you’re working in the oil fields, in a department store, or in criminal investigation, pay and prospects in Business Management & Administration are excellent. Managers in big retail stores can make six-figure salaries within five to 10 years after college graduation, Belinne says. “The hours are long and the work is hard, but you can be extremely successful.”

Accounting majors straight out of college can earn $40,000 to $50,000 and management information system majors can earn $60,000 to $70,000.

10 Fast-Growing Careers

<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>Cost Estimators</td>
<td>28%</td>
<td>870</td>
</tr>
<tr>
<td>Human Resources Managers</td>
<td>26%</td>
<td>340</td>
</tr>
<tr>
<td>Management Analysts</td>
<td>25%</td>
<td>1,515</td>
</tr>
<tr>
<td>Computer &amp; Information Systems Managers</td>
<td>24%</td>
<td>675</td>
</tr>
<tr>
<td>General &amp; Operations Managers</td>
<td>22%</td>
<td>7,065</td>
</tr>
<tr>
<td>Administrative Services Managers</td>
<td>21%</td>
<td>965</td>
</tr>
<tr>
<td>First-Line Supervisors of Office &amp; Administrative Support Workers</td>
<td>21%</td>
<td>5,170</td>
</tr>
<tr>
<td>Business Operation Specialists</td>
<td>20%</td>
<td>2,185</td>
</tr>
<tr>
<td>Property, Real Estate &amp; Community Association Managers</td>
<td>19%</td>
<td>1,095</td>
</tr>
<tr>
<td>Insurance Sales Agents</td>
<td>17%</td>
<td>2,020</td>
</tr>
</tbody>
</table>

This is a projection of 10 fast-growing careers in Business Management & Administration in Texas from the year 2012 to 2022 and the number of average annual openings in each occupation. Note that while the percentage of growth in jobs may be high, the actual number of jobs created may be low. Source: U.S. Bureau of Labor and Statistics and Texas Workforce Commission.
Is Business Management & Administration the right cluster for you? Take this quiz to find out. Answer “yes” or “no” to the following questions.

1. Do you like math?
2. Are you good at organizing clubs or parties?
3. Can you persuade people to accept your point of view?
4. Do you like selling things?
5. Are you good at paying attention to details?
6. Do you play chess, other board games, or computer games?
7. If you play sports, are you a team leader?
8. Do you like to be in charge of group projects?
9. Do you like working and earning your own money?
10. Do you read business magazines or keep track of the stock market?

If you answered “yes” to five or more of the above questions, Business Management & Administration may be the right cluster for you. To get a more specific and scientific measurement of your attitudes and abilities, ask your guidance counselor or teacher about taking a career assessment test or interest inventory.

“Information system experts are almost like interpreters who can move back and forth between business and technology,” Belinne explains.

Across the board, the outlook is bright. The number of jobs nationwide in Business Management & Administration is expected to grow 22 percent during this decade.

Wide Opportunity
And you can chart your own course. Opportunities are available for talented managers in every industry in every part of the world.

Zimmerman—who began his work life sacking groceries—put himself through the University of North Texas by working summers as an oil field roustabout. “I was fortunate the oil field was a high-paying job,” he says. “That was my primary financial support.”

After exploring banking after college, he spent most of his career in the energy business. “I was mainly working with energy companies,” Zimmerman says, “advising on selling and partnering with companies overseas—mainly in oil and gas exploration and production.”

Qualifications
Many—but not all—Business Management & Administration jobs require a college degree. For top positions in human resources, companies vary widely in what they require. Monty Stanley, human resources director at the San Angelo Standard-Times, says, “Any kind of management or business degree should get you in the door.

“To work as a human resources assistant or clerk,” he adds, “you need to have a high school diploma and a good sense of organization. Practical courses in using desktop computer systems will make you much more marketable. If you can prove yourself in some kind of an office-related internship job, this will also improve your career opportunities.”

Whichever route you choose, take rigorous math or English. These skills can help you succeed in a career. Belinne, who helps college students obtain job interviews and evaluate offers, says, “If you can write and speak well and are good at math, you can be phenomenally successful.”

**Top-Paying Careers**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Average Wage</th>
<th>Entry-Level Wage</th>
<th>Experienced Wage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chief Executives</td>
<td>$88.99</td>
<td>$41.86</td>
<td>$112.55</td>
</tr>
<tr>
<td>Architectural &amp; Engineering Managers</td>
<td>$77.09</td>
<td>$46.03</td>
<td>$92.61</td>
</tr>
<tr>
<td>Computer &amp; Information Systems Managers</td>
<td>$64.97</td>
<td>$41.66</td>
<td>$76.62</td>
</tr>
<tr>
<td>Marketing Managers</td>
<td>$64.62</td>
<td>$36.96</td>
<td>$78.45</td>
</tr>
<tr>
<td>Compensation &amp; Benefits Managers</td>
<td>$64.40</td>
<td>$37.28</td>
<td>$76.62</td>
</tr>
<tr>
<td>Financial Managers</td>
<td>$62.41</td>
<td>$35.03</td>
<td>$76.10</td>
</tr>
<tr>
<td>Sales Managers</td>
<td>$62.20</td>
<td>$32.31</td>
<td>$77.15</td>
</tr>
<tr>
<td>Natural Sciences Managers</td>
<td>$60.46</td>
<td>$36.68</td>
<td>$72.34</td>
</tr>
<tr>
<td>Purchasing Managers</td>
<td>$57.47</td>
<td>$32.80</td>
<td>$69.80</td>
</tr>
<tr>
<td>General &amp; Operations Managers</td>
<td>$56.85</td>
<td>$25.34</td>
<td>$72.60</td>
</tr>
</tbody>
</table>

This is a chart of hourly wages for 10 of the top-paying careers in the Business Management & Administration cluster in Texas. Note how entry-level wages are often much lower than pay for the average worker and experienced workers in each profession. Source: Texas Workforce Commission.

THE MCCOMBS SCHOOL OF BUSINESS
AT UT AUSTIN IS THE HIGHEST RANKED IN THE SOUTHWEST U.S.
What Employers Want

COMMUNICATION SKILLS
“What will separate the wheat from the chaff in what we do is the ability to communicate both orally and in writing,” says Greg Haviland, project manager for Catapult Systems, a national micro-soft focused IT consulting company based in Austin. “It really distinguishes people to be able to put their ideas on paper.”

Jim McCarley, chief executive officer of the opinion research firm Opinions Unlimited in Houston agrees. “A solid command of the English language is essential.”

“There’s nothing worse than spelling errors in emails or resumes,” states Molly Holmes. She should know. She reads hundreds of emails and resumes each week as human resources director for Liaison Resources in Austin, a firm that specializes in recruiting and placing marketing communications specialists.

To succeed in business, it’s also useful to be able to speak with ease both to groups and one-on-one. “You don’t have to be outgoing,” reports Haviland, “but you have to be approachable and communicative.”

“You need to be able to effectively present your ideas,” agrees Holmes. “It’s important to be personable versus someone who just sits behind a computer and hides, and it’s critical to be able to speak well in front of a group.”

RELIABILITY AND PUNCTUALITY
“You’ve got to be punctual and reliable,” says Haviland. “It’s an absolute requirement.” But it’s not enough to just show up once. You have to be punctual every day. “Ninety percent of the people who lose their jobs do so due to absenteeism,” reports McCarley, “and we have one of the lowest rates of absenteeism in our industry.”

PRESENTABILITY AND DIVERSITY
“Presentability is important,” states McCarley. A well-groomed, well-dressed professional appearance shows a level of respect for coworkers, clients, and the company that is vital to success. As your parents and teachers always told you, neatness counts.

Most important of all, remember that you are special. “We look for people who are their genuine selves,” says Holmes. “We want you to be professional, but we also want to see what kind of unique qualities you bring to the table. After all, it takes a million different pieces to make a beautiful mosaic.”

Like many kids, Terry Welch ran a Kool-Aid stand as a child. His was more successful than most, he remembers, because “we had different flavors than the Kool-Aid stand down the road.” His secret? He would juice up his product with additives such as raspberries or Coca-Cola.

Welch discovered early on that working in business means coming up with creative ideas that yield bottom-line benefits. Eventually, Welch went to work as director of environmental operations for the Dow Chemical Company in Houston, designing ways to help Dow efficiently deal with waste generated by the company’s operations.

Collaboration
Although the Business Management & Administration cluster covers a wide variety of activities—management, accounting, human resources, marketing, business analysis, administrative support—professionals in all these areas generally spend their days collaborating to plan, organize, and deliver a product or service. Welch, for example, managed 600 employees and a budget of $500 million a year.

Dealing with the DAILY CHALLENGES of business can lead to rewarding personal development.

Multitasking
“I’m not one who likes doing the same thing over and over,” says Linda Hulett, who served as an administrative assistant at the University of Houston’s College of Technology while working on her bachelor’s degree online with DeVry University. “I’m the type of personality that likes multitasking.” An administrative assistant’s job is to support managers by doing such varied tasks as answering phone calls, scheduling meetings, and filing.

“I knew I wanted to be a secretary in the eighth grade,” Hulett says, but her horizons broadened as she acquired more marketable skills.

“There are a lot of project management tasks that I perform in my job right now,” she explains. “When I came here, for example, I was asked to create a better design for office operations. I detailed what the various responsibilities were and designed an organizational chart including the new positions that were created.” Hulett now works as an assistant for Dynegy in Houston.

FORTUNE MAGAZINE’S LIST OF 100 FASTEST-GROWING COMPANIES INCLUDES 20 HEADQUARTERED IN TEXAS.
1. SPORTS MARKETER
Sports marketers help “sell” a team or product and attract fans or customers through branding strategy, advertising, and promotions. A business education could help you secure a job in the big leagues. University of Houston students participate in internships with different sports teams, including the Astros and the Rockets.

“They need interns who want to get credit instead of getting paid. Students are very open to doing that because of the opportunities to gain experience,” reports Brett Hobby, assistant director for employer services and recruitment at the University of Houston Bauer College of Business.

2. VENTURE CAPITALIST
Venture capitalists find private investment money for startup companies, often in unproven cutting-edge technologies. Venture capital powered the 1990s boom in Internet companies although the 2000 “dot-com” bust drove many people out of the business, the industry recovered and has positive career prospects. Venture capitalists must have solid knowledge of the markets and make wise decisions in their investing to minimize risks.

3. BUSINESS VALUATOR
As the newspapers reflect in their stories about billion-dollar corporate mergers, the demand for business valuators continues to rise. Business valuators are accountants who specialize in evaluating the market value of businesses. Like all accountants, they evaluate the assets, liabilities, and capital of a company. Business valuators do so, however, so another company can decide whether it is worth trying to buy a company, or so the company itself can decide what kind of offer it can accept. Pay is high but so is the pressure, because so much is riding on the business valuator’s work.

4. FINANCIAL MANAGER
These well-paid professionals oversee the preparation of financial reports, evaluate investments, and supervise cash management. “Finance majors are heavily sought after,” says Hobby.

These jobs can take you to cool places. Students from Africa and Europe can land jobs in New York with financial investment companies, while Americans can find work in financial centers in Europe and Asia.

5. AGENT
Agents and business managers of artists, performers, and athletes represent their clients to prospective employers and may handle contract negotiations and other business transactions. Managerial duties in the performing arts can include marketing, event booking, and fund-raising.

Working with People
Almost every job in business requires working as a member of a team.

“You really need to like working with people,” says Monty Stanley, human resources director at the San Angelo Standard-Times. “The one thing that all businesses have in common is their people, their ‘human resources.’”

In business, effective communication is critical, whether it’s face-to-face in meetings or via phone, fax, email, or instant messaging. Businesspeople need to write, read, and speak well. Mastering business technology, such as Microsoft Office, is a must. And math skills are used for budgeting, pricing, marketing, and many other areas of a company’s operations.

Networking
“Students interested in business should learn how to network, be a part of student organizations, and not hide behind computer skills,” says Ann Hughes, director of the School of Management at Texas Woman’s University in Denton. “It is extremely important to build your interpersonal skills.” Hughes also recommends that students work while in college—especially in internships. College graduates with no practical work experience are at a disadvantage in the job market.

Learning to Manage
The most common problem Stanley runs into is when new supervisors don’t know how to manage their staff well. “Supervising is a job that doesn’t come naturally to most people,” he says, “so I need to be able to identify when training is needed and see that it gets done.”

Stanley’s job calls on him to help people with problems, and he likes doing it. He has a bachelor’s and master’s degree in psychology, as well as a master’s degree in human resources management.

Lifelong Learning
In business today, successful people keep constantly learning.

Welch himself has taken advantage of Dow’s commitment to developing its people. He had a strong background in science and mathematics when he started with Dow, and the company trained him in leadership and management. He is now completing a master’s degree in business administration.

Welch sees working in Business Management & Administration as an opportunity for personal improvement. “I can experience, learn, grow, and become a better individual and leader,” he says. “And I can give back to a job I enjoy.”
Listed below are 25 careers you might consider in the Business Management & Administration cluster. These are not all the career options in the cluster—they are just a sampling showing the variety of occupations available to you at different education levels. Turn to the “Online Info” on the inside back cover to help you further explore your talents and ambitions. Here’s an explanation of the kind of information presented in each column:

- **SOC**: Stands for Standard Occupational Code, which organizations like the U.S. Department of Labor use to categorize career information. Sometimes you can find data on a career faster by searching for its SOC.
- **GROWTH**: This is the projected annual growth in Texas for the career between 2012-2022. Fast-growing occupations may offer greater career opportunities for young adults.
- **OPENINGS**: This is the projected number of job openings for the career in Texas each year. Even though a career may be fast growing, there may not be a lot of positions available. Careers with more openings will give an entry-level worker a better chance of getting a job and greater job security.
- **WAGES**: This is the amount the average person in the career earns in Texas per year. Naturally, entry-level wages are lower than the average, and those for workers with years of experience are generally higher.

<table>
<thead>
<tr>
<th>SOC</th>
<th>Occupation</th>
<th>Growth</th>
<th>Openings</th>
<th>Wages</th>
<th>Education</th>
</tr>
</thead>
<tbody>
<tr>
<td>15-2041</td>
<td>Statistician</td>
<td>37%</td>
<td>55</td>
<td>$80,679</td>
<td>Master's degree</td>
</tr>
<tr>
<td>15-2031</td>
<td>Operations Research Analyst</td>
<td>37%</td>
<td>330</td>
<td>$76,865</td>
<td>Master's degree</td>
</tr>
<tr>
<td>27-3031</td>
<td>Public Relations Specialist</td>
<td>21%</td>
<td>580</td>
<td>$56,997</td>
<td>Bachelor's degree plus experience</td>
</tr>
<tr>
<td>13-1011</td>
<td>Agent and Business Manager of Artists, Performers and Athletes</td>
<td>45%</td>
<td>20</td>
<td>$75,477</td>
<td>Bachelor's degree plus experience</td>
</tr>
<tr>
<td>11-2022</td>
<td>Sales Manager</td>
<td>20%</td>
<td>990</td>
<td>$129,384</td>
<td>Bachelor's degree plus experience</td>
</tr>
<tr>
<td>11-3011</td>
<td>Administrative Services Manager</td>
<td>21%</td>
<td>965</td>
<td>$95,700</td>
<td>Bachelor's degree plus experience</td>
</tr>
<tr>
<td>13-2031</td>
<td>Budget Analyst</td>
<td>17%</td>
<td>240</td>
<td>$69,582</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>13-2011</td>
<td>Accountant and Auditor</td>
<td>24%</td>
<td>5,685</td>
<td>$73,604</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>13-1071</td>
<td>Human Resource Specialist</td>
<td>16%</td>
<td>1,270</td>
<td>$62,292</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>13-1073</td>
<td>Training and Development Specialist</td>
<td>23%</td>
<td>805</td>
<td>$59,236</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>13-1072</td>
<td>Compensation, Benefits, and Job Analysis Specialist</td>
<td>17%</td>
<td>230</td>
<td>$65,236</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>13-1111</td>
<td>Management Analyst</td>
<td>25%</td>
<td>1,515</td>
<td>$93,152</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>11-9141</td>
<td>Property, Real Estate, and Community Association Manager</td>
<td>19%</td>
<td>1,095</td>
<td>$74,608</td>
<td>Bachelor's degree</td>
</tr>
<tr>
<td>43-6013</td>
<td>Medical Secretary</td>
<td>40%</td>
<td>4,020</td>
<td>$30,120</td>
<td>Postsecondary award</td>
</tr>
<tr>
<td>43-6012</td>
<td>Legal Secretary</td>
<td>7%</td>
<td>295</td>
<td>$43,943</td>
<td>Postsecondary award</td>
</tr>
<tr>
<td>43-1011</td>
<td>First-Line Supervisor of Office and Administrative Support Workers</td>
<td>21%</td>
<td>5,170</td>
<td>$54,381</td>
<td>Work experience in a related occupation</td>
</tr>
<tr>
<td>27-3091</td>
<td>Interpreter and Translator</td>
<td>49%</td>
<td>280</td>
<td>$44,287</td>
<td>Long-term on-the-job training</td>
</tr>
<tr>
<td>13-2082</td>
<td>Tax Preparer</td>
<td>19%</td>
<td>235</td>
<td>$40,276</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>43-4051</td>
<td>Customer Service Representative</td>
<td>23%</td>
<td>10,695</td>
<td>$30,251</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>43-3021</td>
<td>Billing and Posting Clerk and Machine Operator</td>
<td>25%</td>
<td>1,890</td>
<td>$33,920</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>43-6011</td>
<td>Executive Secretary and Administrative Assistant</td>
<td>7%</td>
<td>1,240</td>
<td>$51,390</td>
<td>Moderate-term on-the-job training</td>
</tr>
<tr>
<td>43-4176</td>
<td>Receptionist and Information Clerk</td>
<td>14%</td>
<td>2,400</td>
<td>$25,297</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>43-4111</td>
<td>Interviewer, except Eligibility and Loan</td>
<td>16%</td>
<td>410</td>
<td>$32,242</td>
<td>Short-term on-the-job training</td>
</tr>
<tr>
<td>43-9061</td>
<td>Office Clerk, General</td>
<td>14%</td>
<td>10,080</td>
<td>$30,198</td>
<td>Short-term on-the-job training</td>
</tr>
</tbody>
</table>
**Education Levels**

<table>
<thead>
<tr>
<th>Occupation</th>
<th>Job Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Statistician</strong></td>
<td>Formulate and apply mathematical modeling and other optimizing methods using a computer to develop and interpret information that assists management with decision making, policy formulation, or other managerial functions. May develop related software, service, or products. Frequent contact on collecting and analyzing data and developing decision support software. May develop and supply optimal time, cost, or logistics networks for program evaluation, review, or implementation.</td>
</tr>
<tr>
<td><strong>Budget Analyst</strong></td>
<td>Examine, analyze, and interpret accounting records for the purpose of giving advice or preparing statements. Install or advise on systems of recording costs or inquires.</td>
</tr>
<tr>
<td><strong>Compensation, Benefits, and Job Analysis Specialist</strong></td>
<td>Interview persons by telephone, by mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.</td>
</tr>
<tr>
<td><strong>Office Clerk, General</strong></td>
<td>Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.</td>
</tr>
<tr>
<td><strong>Public Relations Specialist</strong></td>
<td>Conduct programs of compensation and benefits and job analysis for employer. May specialize in specific areas, such as position classification and pension programs.</td>
</tr>
<tr>
<td><strong>Sales Manager</strong></td>
<td>Represent and promote artists, performers, and athletes to prospective employers. May handle contract negotiation and other business matters for clients.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Direct the actual distribution or movement of a product or service to the customer. Coordinate sales distribution and establish sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Plan, direct, or coordinate supportive services of an organization, such as record keeping, mail distribution, telephone operation/reception, and other office support services. May oversee facilities planning and maintenance and custodial operations.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Examine budget estimates for completeness, accuracy, and conformance with procedures and regulations. Analyze budgeting and accounting reports for the purpose of maintaining expenditure controls.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Examine, analyze, and interpret accounting records for the purpose of giving advice or preparing statements. Install or advise on systems of recording costs or inquires.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Perform secretarial duties utilizing specific knowledge of medical terminology and hospital, clinic, or laboratory procedures. Duties include scheduling appointments, billing patients, and compiling and recording medical charts, reports, and correspondence.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Perform secretarial duties utilizing legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Supervise and coordinate the activities of clerical and administrative support workers.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Translate or interpret written, oral, or sign language communications into another language for others.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Prepare tax returns for individuals or small businesses but do not have the background or responsibilities of an accredited or certified public accountant.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Interact with customers to provide information in response to inquiries about products and services and to handle complaints.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Answer inquiries and obtain information for general public, customers, visitors, and other interested parties. Provide information regarding activities conducted at establishment; location of departments, offices, and employees within organization.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Interview persons by telephone, by mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.</td>
</tr>
<tr>
<td><strong>Property, Real Estate, and Community Association Managers</strong></td>
<td>Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring limited knowledge of office management systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.</td>
</tr>
</tbody>
</table>

**EDUCATION:** This is the minimum preferred level of educational attainment for people working in the career in the United States. This can range from short-term on-the-job training to a doctoral degree taking several years of college.

**EDUCATION LEVELS:** The color bars show the mix of education levels attained by people actually working in the profession in Texas (see bars at right). If a bar features mostly one color, that means that level of education is likely the one you’ll need to reach to work in the profession. Look at statistician, for example, and you’ll see that virtually everyone in the field has a college degree or better. If the three colors in the bar are roughly equal in size, that means that there are opportunities in the profession for people of all education levels. For example, about 38 percent of the people working as customer service representative have a high school diploma, while 40 percent have some college, and 22 percent have four-year degrees or better.

**Percentage of people in the occupation who have at most high school diplomas**

**Percentage of people in the occupation who have some college**

**Percentage of people in the profession who have a four-year college degree or better**

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**EONET Online:** These are brief descriptions of each career from O*NET Online (http://online.onetcenter.org).
Before Linda Hulett had even entered high school, she discovered she was a typing wizard. “I recognized that I was gifted in that department,” she says. “My typing teacher told me.”

“My counselors and teachers didn’t really encourage me to pursue business until they saw my production,” she adds. Then everything changed. In high school, Hulett was asked to help teachers with their administrative work. “They picked a few of us who were gifted in that area,” she recalls, “I was chosen to work with a lot of teachers.”

Now, after a career as a secretary that has lasted almost 25 years, Hulett has completed her bachelor’s degree in project management from Devry University and is working as an assistant at Dynegy.

The sooner you realize your full potential, the sooner you’ll be able to start making the most of your talents. That means right now, in your high school classes. Now is the time to really explore the subjects you enjoy and those where you experience success. Like Hulett, you may find you have what it takes to succeed in business.

Core Skills

The Business Management & Administration cluster is popular because successful pursuit of a career within any business concentration requires a diverse set of skills. Business careers can take you into every field of human endeavor, so it is essential to start your career with a solid grounding in rigorous academic courses—English, math, science, and social studies.

As a graduate student in the master’s degree program in business administration, Anna Marie Miller says one realizes how
Imagine filling out your parents’ or neighbors’ tax returns and filing them electronically with the Internal Revenue Service. That’s what sophomores do every year at the Sidney Lanier International Banking and Business Magnet High School in San Antonio. These students help people in the community whose income qualifies them for free service. “We are the only high school in Texas that does this,” magnet coordinator Blanca Ramirez declares proudly.

Sidney Lanier teachers trained by the IRS show the accounting students how to prepare tax returns, but the teachers don’t do the actual processing—they just supervise.

One of nine magnet schools around San Antonio, Sidney Lanier caters to students interested in international banking, marketing, and entrepreneurship.

Operating as a school within a school, the magnet program started in 1996 to help students learn from the trend toward a global market economy. They take business classes and rigorous academic subjects such as English and social studies.

Nearly 255 students out of 1,400 attending the inner-city high school are part of the international banking and business program. They enhance their studies with senior year job shadowing and internships.

An on-site financial service center doubles as a classroom to provide business experience. Students also manage a restaurant as well as several shops—beauty, auto and body repair, and print—that serve the community. Some students will go on to operate their own businesses. Others attend college and then begin careers in areas as varied as public relations and human resources.

“I am proud of these students,” says Ramirez, who adds that the Sidney Lanier magnet program reaches students in ways traditional programs can’t. “If you have a smaller community,” she says, “you can nurture the students. These students know someone cares about them. I think that’s why the program has been successful.”

## Account for Everyone

Ron Zimmerman, chief executive officer of the Houston pharmaceutical company PLx Pharma, has more than 30 years’ experience in investment banking and startup management in a variety of international firms. He says math is important in management no matter what the industry.

“I strongly suggest anybody interested in any kind of business take accounting classes,” Zimmerman says. “I’d actually advise the classes for any career. Most people go to work in a corporate environment. Pretty much everyone is involved in budgets.”

## Focusing Electives

Courses such as Accounting, Touch Systems Data Entry, Business Information Management I, Advertising and Sales Promotion are offered as career electives by many Texas schools, and they are classes that can help begin your preparation for a business career.

Think of the electives as the chance to focus on your job options. The electives differ for each of the six business career programs of study (see “Program Profiles,” on page 12). Each program consists of different electives designed to begin your preparation for those particular careers.

For example, an 11th grader following the Management program of study could take a Business Law course, while another following the Administrative & Information Support program of study might opt for Word Processing.

## Software Savvy

Business Information Management has become one of the most popular electives because it offers the technical training to use business software.

In a startup situation, Zimmerman says, he finds mastery of basic software programs such as Microsoft Word and Excel extremely helpful. “You’ve got to be frugal when you’re starting a company, so people need to be self-sufficient in basic skill sets. With the advent of word processing and the Internet, people are expected to do a lot of their own work.”

## Get Certified

In some cases, you can begin work toward certification in particular skills even while in high school. Working toward Microsoft Office Specialist certification, Internet and Computing Core certification, or certification in Bookkeeping Fundamentals, for example, makes you more employable now and builds the foundation for later advancement.
Until he took an internship with the office supply store, Office Max, his sophomore year, surfing was the only passion of Dulles High School student Geoff Hirschheim of Sugar Land. “I was one of those students who was just going through the motions,” he recalls.

Being introduced to the business world, however, changed his attitude dramatically. Almost instantly his grades improved and “he was successful at the University of Texas at San Antonio,” recalls Hirschheim’s business teacher Ken Kaser.

Career Launch

Hirschheim credits his experience in the world of work, together with his focus on business classes in high school, with getting his career off the ground. “Having a strong foundation in marketing and management prior to college gave me an advantage over the other students who were hearing it all for the first time. “Practice makes perfect,” adds Hirschheim, who went to work as an executive with Shell Information Technology International in Houston after college, “starting in high school allowed time to practice. It gave me the confidence and knowledge I needed to compete in the business world.”

Real Business Experience

Internships are just one of the ways you can get real business experience while still in high school. Education that takes place outside the classroom, whether it happens in the workplace or in student organizations in your own high school, is called extended learning, and it is one of the best ways to find out what business is all about.

Paid or unpaid internships are temporary, part-time, or summer jobs that enable students to learn business skills on the job. Often interns are paired with a mentor, an employee in the business who oversees their work and shows them the ropes.

Make Contacts

One good place to make contacts and learn about business in general is in career and technical student organizations (CTSOs) in your school. Diana Weber is state advisor for the student organization Texas Business Professionals of America (see “Business Competition” on next page). Among a host of other activities, she says, BPA helps students set up job shadowing with business professionals.

Job shadowing allows students the opportunity to observe business professionals on a typical day at work. “We have matched up students with professionals in every job field from audiovisual to accounting,” says Thomas. Students get an idea of all aspects of business management, and connect with professionals who might later help with mentoring, internship, or
Volunteering

Volunteering is another way to acquire practical work experience. There are many volunteer opportunities that can provide leadership training, offer the responsibility of dealing with real-life or crisis situations, and, perhaps most significantly, allow students to gain the maturity and wisdom to deal with adversity.

In Texas, there are opportunities through the American Red Cross, the Special Olympics, the March of Dimes, and Habitat for Humanity, among others. “Both the Red Cross and Habitat sponsored huge contingencies from Texas to aid the ongoing clean up resulting from the Hurricane Katrina disaster in the Gulf region,” says Thomas.

**SPOTLIGHT**

**BUSINESS COMPETITION**

BPA and FBLA Teach Real-World Skills to Students

Students interested in business careers can begin developing professional skills in high school student organizations. Business Professionals of America (BPA) and Future Business Leaders of America (FBLA) have active chapters across Texas that promote leadership, encourage teamwork with people with similar interests, and organize competitions that showcase business skills.

BPA aims to help prepare a world-class workforce by developing students’ leadership, citizenship, academic, and technological skills. Diana Weber, BPA’s Texas state advisor, has seen many students develop into business professionals—Weber says one student still in high school is a website designer. “He has really grown his company and has a huge client base,” she says.

BPA competitive events begin each fall at local leadership conferences throughout Texas featuring competitions in business skills. Students with technical skills, for instance, might try to create the best website or develop plans for an e-commerce business.

Then students advance to regional competitions and, if they win, advance to the state and national levels. No matter how far they advance, Weber says, students benefit from the experience. “They’re getting that feel of working in teams and developing businesses,” she says.

FBLA holds spring state leadership conferences featuring competitions in business knowledge and skills. Top performers move on to advanced competition at FBLA’s National Leadership Conference in the summer. Malia Hudson, a teacher and sponsor of FBLA at Plano East Senior High School in Plano, says several of her students have excelled in competitions.

One of them, Hunter Morris, was “barely interested in school and only to appease his mother’s wishes became involved in extended learning with FBLA,” Hudson says. After excelling at an FBLA competition, Morris wound up “discovering his true calling in the field of economics,” she says. Since then, Morris has attended the University of Chicago on scholarship, and is currently working in London’s financial district.

Both FBLA and BPA encourage community service through participation in projects such as Special Olympics. “We want students to be great leaders,” Weber says, “and part of being a great leader is giving back to your community.”

For more information, visit [www.texasbpa.com](http://www.texasbpa.com) or [www.fblatx.org](http://www.fblatx.org).
John Mullen is a Highland Village consultant advising startup companies that are just in the process of getting off the ground. He has a bachelor’s degree in philosophy and a master of business administration (MBA) degree and owns his own business.

“I really enjoy the variety of the work I do,” he says. “I get to collaborate with new people, in different industries, and on a variety of projects.

“I think the philosophy degree has helped me more in business than the MBA, because it trained me to seek creative solutions to problems,” he continues. “I have seen far too many business graduates who can only apply a ‘cookie-cutter’ approach to problems.”

As Mullen points out, education is critical to success in Business Management & Administration. Of course, a few entrepreneurs can and do create successful businesses right out of high school. Nearly every successful businessperson, however, has gotten further education after graduation, whether it is military service, certification in a business skill, a two-year associate’s degree, a four-year bachelor’s degree, or a master of business administration degree, which takes two years after earning an undergraduate degree. If you want to be successful in business, plan on continuing to learn throughout your entire career.

(HTC)

A great way to get your start at two-year colleges is to take advantage of the Advanced Technical Credit (ATC) Program in Texas. ATC gives high school students a seamless transition to postsecondary business education by combining high school work with two years of study at community colleges and technical schools (www.atctexas.org).

South Texas College, for example, with five campuses and centers in McAllen, Weslaco, and Rio Grande City, is a big supporter of ATC in south Texas. The college has partnerships with 16 school districts in Hidalgo and Starr counties.

As early as their sophomore year, high school students begin earning college credit toward an associate’s degree at South Texas College with a wide variety of business specializations—accounting, banking, marketing, management, and import/export/logistics.

Associate’s Degrees

Although most management positions require at least a bachelor’s degree, there are other business careers, such as accounting or administrative support, look for people with associate’s degrees, certificates, or related work experience.

Most community colleges offer several types of educational programs. The first, academic transfer programs, gets students ready to switch schools after their second year of higher education and pursue a bachelor’s degree in business at a four-year university. Applied studies consist of programs designed to allow students to earn a business certificate or associate’s degree leading directly to employment.

North Central Texas College offers an associate of applied science (AAS) degree in business management for 70 credit hours or in computer information systems for 61 credit hours. It also offers a certificate of business management or network operating systems for 31 credit hours.

Military Options

The military is another
option for occupational training in many subjects—math, bookkeeping, accounting, finance—that can prepare trainees for employment or further education after military service.

In addition to these great on-the-job training programs, the military also offers numerous ways to earn four-year degrees. They have credit programs, military colleges, service academies, online classes, and the Reserve Officers Training Corps (ROTC), which pays students who participate during college.

**Four-Year Degrees**

Kathleen Cochran advanced all the way to vice president at Heritage Bag, a national industrial trash bag company headquartered in Carrollton, without a college degree of any kind. She was fortunate enough, however, to have a mentor on her first job who taught her everything about business.

“The lack of a college degree didn’t hold me back, but a college degree wasn’t necessary in those days,” she says. “My advice to students today is to get a degree. Today, all things being equal, the person with the degree will get the job. Our company requires at least a four-year degree now.”

Students applying or transferring to four-year universities in Texas have many choices of excellent bachelor’s degree programs in business. *Business Week* magazine ranks the University of Texas at Austin’s four-year business program number 10 in the country. The cost of UT Austin’s program is a little over a quarter of the tuition at the number 1 program at the University of Notre Dame.

Three other Texas colleges—Southern Methodist University, Texas Christian University and Texas A&M—have four-year business programs in the top 50 nationwide.

**MBA Programs**

Students interested in careers in management should look into MBA programs. These programs, usually two years long, aim to give students all the tools—economics, finance, marketing, organizational psychology—needed to be first-rate managers.

UT Austin’s MBA program is rated number 17 in the country by *Forbes* and, in terms of students’ personal investment, the program pays for itself. A former UT Austin MBA graduate had this to say: “At UT I got direct experience and contacts to help make my plans a reality and increase the chance of success. I am tapping into and benefitting from that exposure right now as I set up my own business.”

TEXAS CPA AND ACCOUNTING ORGANIZATIONS PROVIDE HUNDREDS OF THOUSANDS OF DOLLARS IN SCHOLARSHIPS TO TEXAS STUDENTS PURSUING ACCOUNTING DEGREES.

Dual credit in Texas is a great way to earn college credits toward a postsecondary degree while you’re still in high school. Dual credit programs center on “articulation agreements,” contracts between the student, his or her high school, and postsecondary institutions the student would like to attend. While most students take basic core courses such as English, history, math, science, and social science, coursework may include areas in Career and Technical Education.

Dual credit courses cover the same material as the equivalent college course, allowing the student to receive credit toward the college degree. It’s like a bank account. The credit is banked for you at the college, and you withdraw it when you enroll.

Ask your counselor about advanced placement, dual credit, or articulated courses and other opportunities to earn college credit.
SIX THINGS Texas students should know about getting into college

Applying to college is a lot like looking for a job or trying out for a team. You choose something that interests you, and then try your best to convince whoever is in charge that you have what it takes to be part of their organization. But whereas there might be only a few spots open on your high school’s varsity football squad, there are thousands of places available in hundreds of colleges each year. Whether you are the first in your family to apply to college or both of your parents have advanced degrees, going through the admissions process can be stressful. Fortunately, there are plenty of free resources available for Texas college-bound students. The best is College for All Texans (www.collegeforalltexans.com), which features a list of all the state’s colleges and universities, a checklist for selecting a school, and a link to the online Texas Common Application. To help you get started on your own college search process, here are six steps you should take.

1. Make School Your Job

The first thing college admissions officers look for on your application is your grade point average. It’s simple—you have to make the grades in high school to earn your spot in a college. The easiest way to do that is to think of school as your job, starting in your first year. If you show up late for work, slack off, and talk back to the manager, you’ll get fired faster than you can say, “Do you want fries with that?” But if you always arrive on time, work really hard, and try to learn from management, then pretty soon you’ll probably get a raise or a promotion.

What works on the job works in the classroom, too. Take challenging courses. Turn in all your work on time. Pay attention in class. Contribute to discussions. Ask for help when you don’t understand something. By treating school as a career, you’ll have a better shot at earning the grades and teacher recommendations that you need to move to the next level.

2. Get Involved in Activities

Colleges don’t accept students to fill seats. They look for students who will add to the entire college community by playing on sports teams, performing on stage, volunteering for service projects, and so on. Look at the clubs and teams available at your school and sign up for the ones that interest you. In addition to showing school spirit, being part of an organization is a great way to build teamwork and leadership skills—two traits that can really help your college application stand out from the pack.

3. Build a Resume Portfolio

What if you had to take a final exam on the last three years of a subject and didn’t have any notes to study? Well, that’s exactly what it’s like trying to complete a college application if you haven’t kept an ongoing file of all your activities, honors, and employment.

Start your first year and build a career portfolio (see page 15). It’s also smart to create a computer file called “college resume” and add to it each time you participate in a service project, win an award, get a new job, and so on. Use technology to create a resume format or ask your parents or guidance counselor for help. When you sit down to complete your college applications, review your career portfolio and call up the resume—all the information you need will be right at your fingertips.

4. Prep for Tests

Most colleges use scores from the SAT, SAT II, or ACT tests in making their admissions decisions. Check which tests the schools you’re interested in require and sign up to take them in time to include the scores in your application. College for All Texans (www.collegeforalltexans.com) also has a free ACT, SAT, and GRE prep course.

Spend time preparing for the tests before you walk into the room with your No. 2 pencils and calculator. Go through sample SAT questions at www.collegeboard.org or ACT tests at www.actstudent.org. There are also dozens of test-prep books you can buy, some including software that tracks your progress as you go through sample exams.

Remember: If you don’t do well on a test the first time, you usually can take it again and try to improve your score.

5. Make a List of Colleges

Do you want to stay in Texas for college or see another part of the country? Would you be more comfortable at a big university or a small college?

Think about what you would like to study and what matters most to you (like location, size, or religious affiliation), and then start developing a list of colleges that fit your criteria.

Use online tools like www.collegeforalltexans.com or www.collegeboard.com to learn more about each school and take online campus tours. Buy or borrow from the library some of the many college guides available. If possible, schedule visits to the schools you are interested in, or, through the school’s admissions office, arrange an interview with a recent grad who lives in your area so you can ask questions about courses, faculty, or anything else.

By the fall of your senior year, narrow the list down to the top five or six choices. While some online applications are free, it can cost up to $70 per school to apply, so be realistic about how much you can spend on applications.

6. Submit Polished Applications

Once you send in an application to a college there’s no taking it back, so make sure you get it right the first time. Double-check your spelling. If you use the same essay for multiple schools, remember to change the name of the school to fit each application. Make sure you have any required standardized test results (ACT, SAT, SAT II) sent to each school.

Be neat and complete, and meet every deadline. Make copies of each application before you hit the send button or pop it in the mail. If you don’t receive an email or postcard confirming that your application was received, contact the college to make sure it arrived. Items can get lost or misdirected, especially when thousands of students are sending in applications at the same time. By having copies, you can easily submit again.
EVEN IF you get accepted to college, you’ll never be able to pay the bill, right? Wrong! There’s financial aid available if you know where to look.

College isn’t cheap. With tuition and room and board at private schools often topping $40,000, and even in-state, public schools costing several thousand dollars a year, you may wonder why you should even apply.

Well, don’t worry. Every Texas student can afford to go to college.

“Access and affordability of higher education can be intimidating to students and parents; however, there are numerous resources available to walk you through the process and into an exciting future,” says Heather V. Crowson, vice president for enrollment management at Sam Houston State University.

The secret to getting the aid you need to go to school is in filling out the necessary forms, getting good grades, and applying to schools that offer generous financial aid packages. (A financial aid package consists of need- or merit-based scholarships and grants plus work-study jobs and low-interest student loans.)

Here’s a quick overview of steps you can take to get the financial aid you need to continue your studies after high school. For more information about the aid available at a specific college or university, go to the school’s website and click on the “Admissions and Financial Aid” link. Many schools provide an online form you and your parents can fill out that will give you the estimated financial aid package you might receive if accepted to that school.

Apply: You definitely won’t get any financial aid if you don’t apply. To figure out how much grant money (which you don’t pay back) and loans (which you do pay back) you’ll need to afford school, colleges use a formula that factors in your parents’ income and investments, your income, the number of kids in the family who will be in college at the same time, and other financial information. Families of all income levels may receive aid, so fill out the forms.

All schools require the Free Application for Federal Student Aid (FAFSA), which determines eligibility for federal aid, such as work-study, Pell grants, and the Stafford loan program; and for college grants and, sometimes, merit scholarships. Complete the application as soon as possible at the beginning of October your junior year. FAFSA forms and instruction booklets are available in your guidance counselor’s office, or you can complete the form online at www.fafsa.ed.gov.

Most private schools also require applicants to complete a school financial aid application and, in some cases, the CSS/Financial Aid Profile form (https://student.collegeboard.org/css-financial-aid-profile) which is used to award nonfederal student aid funds. Carefully read each college’s application to determine financial aid deadlines and what forms you will need to submit.

Study In-state: Whether you choose a public or a private school, staying in-state for college will cut your costs considerably. Plus, since Texas covers 267,339 square miles, you can “go away” to college without ever leaving the state.

To help ensure that qualified Texas high school graduates with financial need can go to college, the State Legislature established the TEEX (Towards Excellence, Access, and Success) Grant Program. Grants can be used to study at any public college or university in the state and are equal to the student’s tuition and required fees. In 2012-2013, approximately 33,100 students received TEXAS Grants. To apply, fill out the FAFSA.

Another way to score some serious state aid is to get good grades in high school. Texas students who are in the top 10 percent of their graduating class are eligible for automatic admission to any public university in the state. With that automatic admission comes the opportunity to apply for merit scholarships and special programs available at each school.

Take Two at a Community College: The first two years of many college programs are filled with core courses that could easily be taken at a local community college for a lot less money. If you fill out all the forms, do the math, and still can’t afford a four-year school, enroll in a community college for the first two years, then transfer to a four-year school.

By living at home, working part-time, and getting required courses out of the way, you could save tens of thousands of dollars in tuition and room and board, and be able to afford to attend the college of your choice for junior and senior years. For a complete list of the state’s community colleges, go to the Texas Association of Community Colleges website at www.tacc.org.

Target Your Search: Applying to a couple of colleges where your grades and talents put you near the top of the typical talent pool makes it more likely you’ll qualify for merit aid and other special school scholarships and grants. Do a little research on college websites to find schools where your standardized test scores and grade point average rank you in the top 25 percent or so of the most recently accepted first-year class. Colleges want to attract the best and brightest students available, and often will offer attractive scholarship/grant/loan packages to convince those students to come to their school.

There are also more than 1 million local, national, and college-specific scholarships available each year. The trick is to find and apply for scholarships that best fit your strengths and talents. FastWeb (www.fastweb.com) is a free college scholarship search source. Register online and you will start receiving email notices about scholarships, internships, and other opportunities that fit the profile information you submit.
LOOK IT UP! Here are key words and phrases used in this guide that you may not already know.

What does that mean?

Articulation agreements: formal agreements between or among educational organizations (high schools, community colleges, and universities) that align courses and majors in a way that allows students to transition from one institution to another without loss of course credit or time.

Associate’s degree: a two-year degree awarded by a community or technical college.

Bachelor’s degree: a four-year degree awarded by a university.

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

Career cluster: a way of organizing curricula, instruction, and assessment around specific occupational groups (for example, Information Technology or Health Science) that offers students core academics, coursework related to specific occupations, and extended learning experiences.

Career portfolio: a collection of student work indicating progress made in subjects, activities, or programs. In career cluster systems, portfolios are often used to assess student performance in extended learning experiences.

Doctoral degree: a degree awarded by universities for study beyond a master’s degree. Also referred to as a Ph.D. or professional degree.

Dual credit: credit given in both high school and college for college-level courses taken while in high school.

Extended learning experiences: participation in career and technical student organizations, extracurricular activities, job shadowing, internships, or service learning.

Financial aid: scholarships, grants, loans, and work-study funds awarded to students to pay for college expenses.

Internship: an extended learning experience in which students work temporarily at entry-level jobs in careers that interest them.

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

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

Program of study: a way of organizing the curricula and educational activities within a career cluster related to a student’s specific academic and career goal.

Service learning: an extended learning experience in which students do volunteer work related to their career goals.

Targeted industry clusters: six industry clusters that have been identified by Texas as high-demand, high-growth sectors paying high wages. As they are developed by the State, these may be hot areas in which to build a rewarding career.

Program of Study: an education plan suggesting the high school courses a student should take to prepare successfully for graduation and transition into postsecondary education. The vision for Texas CTE is that eighth graders, in consultation with their parents/guardians, counselors, and teachers, will select a program of study and create a plan. Plans are to be reviewed and revised at least once each school year.
Online Info

Explore these Internet resources for more about your education and career options.

America's Career InfoNet
www.acinet.org/acinet
This is the place to search for occupational information, industry information, and state-specific labor market information.

College for All Texans
www.collegeforalltexans.com
Here is everything a Texan needs to know about preparing for, applying for, and paying for college or technical school. And it's all in one up-to-date, easy-to-navigate mega-site almost as big as the state itself. Remember: $4 billion is available every year to help Texans attend college.

Employability Skills Framework
http://cte.ed.gov/employabilityskills/
Employability skills are general skills that are necessary for success in the labor market at all employment levels in all sectors. The Employability Skills Framework is a one-stop resource for information and tools to inform the instruction and assessment of employability skills.

My Next Move
www.mynextmove.org/
This is a career planning resource for students, parents, career changers, and career advisors.

O*NET (Occupational Information Network)
online.onetcenter.org
Also available in schools and libraries, O*NET provides full information on occupations, including compensation, employment prospects, and skill matching for students. Information on compensation is available on a state-by-state basis.

U.S. Department of Labor Occupational Outlook Handbook
www.bls.gov/home.htm
This nationally recognized resource offers information on job responsibilities, earnings, working conditions, and job prospects for the future.

Texas Career Check
The State of Texas has created a special website for students and others researching careers. It's called Texas Career Check. Texas Career Check lets you explore higher education options by looking at detailed information by school and program of study, AND you can explore careers, occupational information, and postsecondary education options. You'll find a wealth of information about hundreds of career choices. To explore Texas Career Check, go to www.texascareercheck.com.

Reality Check
The Texas Workforce Commission has created an online resource called Reality Check to help you understand how much money you'll need to live on your own after high school or college and how you can earn it. There are three ways to explore careers, expenses, and earnings. For the first option, which is called “Get a Reality Check,” you choose an area you'd like to live in, such as Austin. You then go through a series of screens with real-world costs for items such as housing, clothing, transportation, health care, and personal expenses. The site automatically adds up your estimated monthly expenses, then uses salary information for Texas to show you careers that will make you that much money. The second option, called “Future Salary,” starts with the wages you expect to earn, what education you plan to pursue, and the career cluster that interests you. Then it generates a list of careers in which you can make that amount of money. The third option, “Occupation Direct,” begins with your occupational choice and the area where you want to live, then shows how your estimated expenses subtract from the salary for your chosen job. The site, which is at www.careerwise.mnscu.edu/careers/realitycheck.html, is a great way to play “what if” when it comes to mixing your job, earnings, and expense options.

The results of Reality Check show you how expenses add up quickly when you are living on your own.
## Texas CTE Career Clusters

<table>
<thead>
<tr>
<th>Cluster</th>
<th>Description</th>
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<tbody>
<tr>
<td>Agriculture, Food &amp; Natural Resources</td>
<td>Processing, production, distribution, and development of agricultural commodities and natural resources.</td>
</tr>
<tr>
<td>Business Management &amp; Administration</td>
<td>Organizing, directing, and evaluating functions essential to productive business operations.</td>
</tr>
<tr>
<td>Government &amp; Public Administration</td>
<td>Executing governmental functions at the local, state, and federal levels.</td>
</tr>
<tr>
<td>Human Services</td>
<td>Providing for families and serving human needs.</td>
</tr>
<tr>
<td>Manufacturing</td>
<td>Processing materials into intermediate or final products.</td>
</tr>
<tr>
<td>Architecture &amp; Construction</td>
<td>Designing, managing, building, and maintaining the built environment.</td>
</tr>
<tr>
<td>Education &amp; Training</td>
<td>Providing education and training services, and related learning support services.</td>
</tr>
<tr>
<td>Health Science</td>
<td>Providing diagnostic and therapeutic services, health informatics, support services, and biotechnology research.</td>
</tr>
<tr>
<td>Information Technology</td>
<td>Designing, supporting, and managing hardware, software, multimedia, and systems integration.</td>
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<tr>
<td>Marketing</td>
<td>Performing marketing activities to reach organizational objectives.</td>
</tr>
<tr>
<td>Transportation, Distribution &amp; Logistics</td>
<td>Managing movement of people, materials, and goods by road, pipeline, air, rail, and water.</td>
</tr>
<tr>
<td>Arts, A/V Technology &amp; Communications</td>
<td>Creating, exhibiting, performing, and publishing multimedia content.</td>
</tr>
<tr>
<td>Finance</td>
<td>Financial and investment planning, banking, insurance, and business financial management.</td>
</tr>
<tr>
<td>Hospitality &amp; Tourism</td>
<td>Managing restaurants and other food services, lodging, attractions, recreation events, and travel-related services.</td>
</tr>
<tr>
<td>Law, Public Safety, Corrections &amp; Security</td>
<td>Providing legal, public safety, protective, and homeland security services.</td>
</tr>
<tr>
<td>Science, Technology, Engineering &amp; Mathematics</td>
<td>Performing scientific research and professional and technical services.</td>
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### About Texas CTE

You may have seen the name Texas CTE on the cover of this magazine. What exactly is that?

Texas CTE is the name of Texas’ college and career education initiative. The idea behind it is simple: Planning for the future so that students achieve lifelong success. As Texas CTE grows, you’ll see how subjects such as English, math, science, and social studies are relevant to your personal goals and ambitions. You’ll get the chance to begin a plan that gets you where you want to go in life. You’ll have the opportunity to take courses and engage in extended learning experiences that give you marketable skills. Best of all, you’ll be in control of your future. Read all 16 editions of Texas CTE in Action (available through your counselor) to explore Texas’ career clusters and start on the road to success.