

ARE YOU COLLEGE & CAREER READY?

2015 EDITION



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FOOD & NATURAL
RESOURCES



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CONSTRUCTION



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TOURISM



HUMAN SERVICES



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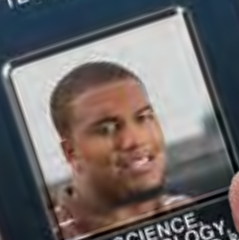
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LOGISTICS

Apply your learning

INSIDE

- Options after high school
- Work-based learning
- Entrepreneurship
- Industry credentials
- Ways to pay for education
- Career Clusters
- Money management

A publication of the Virginia Department of Education's Office of Career and Technical Education Services
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Apply your learning

What you learn in high school can have a big impact on your future. Your high school career may have just begun, and it might be difficult to focus on much beyond the grades on your next report card. But now is the time to start thinking about how you can apply what you are learning today to your future goals.

It is important that you start exploring career options and investigating those you find most interesting. A little planning and work now can go a long way to preparing you for life after high school.

Published by Virginia Business Publications LLC in partnership with the Vir-

ginia Department of Education, this guide is designed to help prepare you for a career. You'll find detailed information on 16 Career Clusters, which will include important information on a variety of careers: the salary you can expect, number of opportunities currently available in Virginia, projections for the future, and the education and training required for each career. The question is not whether you have enough education, but the right education.

You'll also want to use this guide to understand what work-based learning opportunities are available to you now.

You can read stories about students who have used these opportunities to help launch their own careers. The guide ends with some practical advice on paying for college, creating a résumé, and finding a job.

There are tough choices ahead that will affect you for the rest of your life. Take some time to review this guide and to read over the options available to you. Meet with your school counselor, your parents, and your teachers to discuss what education and marketable skills you'll need to achieve your goals. It's time to apply your learning!



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Teachers ROCK.

Become a Teacher.



8 Steps to Plug-in to a Career in Education

Imagine a career where you can shape the future...ignite curiosity...be creative...make a positive difference...and achieve your dreams. Find all of this—plus more—in a teaching career.

So, where can you begin? Here are eight easy steps to help you on your journey to becoming a teacher.

- #1** Start at the Teachers Rock Web site: www.teachvirginia.org/plugin for information on teaching careers including links to colleges and universities, licensure information and more. Check out the video with students from Varina High School in Henrico County, Virginia.
- #2** Find out if your school offers an Introduction to Education class and sign-up. In some high schools this program is called Teachers for Tomorrow or the Teacher Cadet class. This course helps students explore the field of teaching and education through classroom study and internships. Learn more about the Teachers for Tomorrow program in Virginia at the following Web site: http://www.doe.virginia.gov/teaching/educator_preparation/teachers_for_tomorrow/index.shtml.
- #3** Join the Future Educators Association (FEA), which is an international organization that supports individuals who are interested in education-related careers. Learn about FEA at www.futureeducators.org or ask if your school has an FEA chapter.
- #4** Expand your education-related experiences by volunteering to tutor others, helping teachers in your school, or volunteering for nonprofit organizations that serve groups of youths.
- #5** Consider the types of children and youth you would like to teach. Think about school subjects, topics, experiences, and classes you enjoy the most. Consider teachers who inspire you and ask them about their career paths. Conduct some research on the current demand for teachers and the subject areas in the greatest need (often referred to as critical shortage teaching areas).
- #6** Start planning for college. Get advice from your guidance counselor on colleges that offer teacher education programs in the area you want to teach. Plan visits to colleges and universities to find the best program that matches your interests. Learn more about opportunities available through Virginia's institutions of higher education that offer approved teacher preparation programs by visiting the following Web site: http://www.doe.virginia.gov/teaching/educator_preparation/college_programs/index.shtml.
- #7** Seek out scholarships since many such programs specifically target future educators and specific teaching areas of need. Talk with your school counselor, college financial aid officer, personnel at the Virginia Department of Education, and the education preparation program contact (usually "the School or Department of Education") at the college or university of your choice for more information.
- #8** Now it is time to head off to college and study hard. Later, when you need information on education-related jobs or how to obtain a teaching license in Virginia, here is a great Web site to bookmark: www.teachvirginia.org.

Teachers ROCK.

Learn more about careers in teaching. Check out Teachers Rock at www.teachvirginia.org/plugin or call us at 1-888-TEACHV1.





COMMONWEALTH of VIRGINIA

Office of the Governor

Terence R. McAuliffe
Governor

October 6, 2014

Dear Sophomores and Parents:

In just two short years, you and your classmates will be making some very important decisions. Luckily, your options are quite extensive: Public universities, private institutions, community colleges, apprenticeship programs, workforce training, military service, or some combination are just a few of the choices you have in starting rewarding careers.

As Governor, I have made higher education and workforce development key priorities of my administration. Virginia needs a diversification of talent, and I urge you to consider all the options before you. Research tells us that a high school diploma prepares students for only 35% of all jobs. You deserve more; you deserve the best that Virginia has to offer.

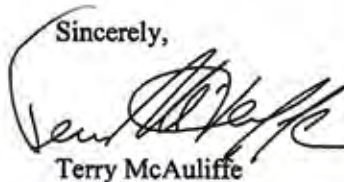
That is why in August, I signed an Executive Order establishing the “New Virginia Economy” Workforce Initiative. This initiative seeks to better align higher education and workforce training with the needs of business and industry. We need a world-class educational system that prepares students today for the careers of tomorrow.

Know that my administration is also dedicated to ensuring that your higher education experience is both inclusive and safe. On my first day in office, I signed an Executive Order which prohibits discrimination based on sexual orientation and gender identity. Recently, I signed another Executive Order creating the Task Force on Combating Campus Sexual Violence, because our college campuses and universities must be safe environments where students are encouraged to grow, learn, and thrive.

My team and I are committed to making sure your next step is a rewarding one. To create the new Virginia economy, we must rededicate ourselves to building an educational system that is the envy of the nation and the world, and your success is critical to this effort.

Together, I know we can do it.

Sincerely,



Terry McAuliffe

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www.governor.virginia.gov

WEB RESOURCES

Career Resources

Career Clusters in Virginia

www.doe.virginia.gov/instruction/career_technical/career_clusters/index.shtml

Career Clusters help you investigate careers and design your courses of study to advance your career goals. A career cluster is a grouping of occupations and broad industries that include multiple career pathways.

Career Planning Guide

www.cteresource.org/cpg

The Career Planning Guide (CPG) is a career-planning tool for students and a resource for parents, teachers, and school counselors who guide students in career choices.

CTE Trailblazers

www.ctetrailblazers.org

Trailblazers' mission is to help you recognize all career opportunities, unrestricted by social or cultural expectations. A nontraditional career is any occupation in which females or males comprise 25 percent or less of its total employment.

KnowHow Virginia

www.knowhowvirginia.org

The Virginia Career Education Foundation's Web site allows you to explore careers and identify course offerings that will prepare you for your career. It includes a self-assessment.

Virginia Career View

www.vacareerview.org

The Virginia Career View Web site helps K–8 students explore career options, introduces the 16 Career Clusters, and provides resources and activities to enhance career development.

Virginia Education Wizard

www.vawizard.org

The Virginia Education Wizard offers extensive career information, including assessment tools based on interests. See page 5.

Virginia Employment Commission

www.vec.virginia.gov

The Virginia Employment Commission provides employer and job seeker services, unemployment benefits, and labor market information.

COLLEGE RESOURCES

College Ahead www.salliemae.com/plan-for-college
College Board www.collegeboard.org
CollegeNET www.collegenet.com
CollegeView www.collegeview.com
The Princeton Review www.princetonreview.com
GoCollege www.gocollege.com
myCollegeOptions www.mycollegeoptions.org

INTERNSHIPS

Internship Programs www.internshipprograms.com
Internships.com www.internships.com
The Washington Center for
Internships and Academic Seminars www.twc.edu
InternMatch www.internmatch.com

JOB FINDERS

CareerBuilder www.careerbuilder.com
Federal Jobs Digest www.jobsfed.com
Glassdoor www.glassdoor.com
Indeed.com www.indeed.com
Job-Hunt www.job-hunt.org
Monster www.monster.com
Monster College college.monster.com
Salary.com www.salary.com
Simply Hired www.simplyhired.com
Snagajob www.snagajob.com
USAJOBS www.usajobs.gov

MILITARY

U.S. Air Force www.airforce.com
U.S. Army www.army.mil
U.S. Coast Guard www.uscg.mil
U.S. Marines www.marines.mil
U.S. Navy www.navy.mil
Virginia National Guard vanguard.dodlive.mil
Military Information www.military.com

TUITION ASSISTANCE

College Ahead www.salliemae.com/plan-for-college
College Board www.collegeboard.org
CollegeNET www.collegenet.com
Edvisors www.edvisors.com
Fastweb www.fastweb.com
FinAid www.finaid.org
Virginia College Savings Plan www.virginia529.com

VOLUNTEERING

AmeriCorps www.nationalservice.gov
City Year www.cityyear.org
Habitat for Humanity www.habitat.org
Peace Corps www.peacecorps.gov
Office on Volunteerism and
Community Service www.vaservice.org
Help Exchange www.helpx.net
Worldwide Opportunities on Organic Farms www.woof.net



Explore this one-stop, online resource that helps you walk through the front door to college and on to a high-paying and in-demand career.

Ginny, the guide for the Virginia Education Wizard can help you with

Choosing a Career

You can take assessments to find careers that match your interests, values, and skills, then explore specific occupations and get real-time details about the demand and local salaries for those occupations. You can also prepare for jobs by building a résumé and receiving tips for successful interviews.

Planning for College

The Wizard allows you to search for colleges and universities across Virginia and prepare for college admission exams. The Wizard also provides customized plans for a successful transition to college.

Paying for College

You can compare college costs, get assistance applying for financial aid, and search for scholarships. The site also helps you understand forms of financial aid, and how to save and pay for college.

Transferring to a University

The Wizard outlines pathways to four-year degrees, including guaranteed admission to 25 Virginia universities. The Wizard also helps plan, track and prompt necessary steps for an easy transfer.



The Virginia Education Wizard is a collaboration of the Virginia Community College System, Virginia Department of Education, State Council of Higher Education for Virginia, Virginia College Savings Plan, and Educational Credit Management Corporation.

Exploring your future

Discovering options after high school



So far, your educational path has mostly been laid out for you. Preschool, elementary school, middle school, and now high school. However, myriad opportunities exist after high school graduation. You might be eager to

enter the workforce right away, or you may be considering a career, such as a medical doctor, that requires years of additional education. As you explore options after high school, you will need to focus on bringing together your

career and educational aspirations. For some careers, on-the-job training or certifications are as important as additional degrees. Learn the requirements of your career choice, and discover how to apply your learning now.

The workforce

If you want to enter the workforce directly after graduation, take opportunities to assess whether a particular industry is right for you before getting additional training or education. Ask your school counselor about work-based learning opportunities in your school (see pages 12 and 13). The Virginia Employment Commission offers one-stop centers to help anyone looking for job placement, interview training, or résumé building. Visit www.vec.virginia.gov.

Student apprenticeships

An apprenticeship is one work-based learning method and offers students opportunities to study and work at the same time. Participants in these programs earn a wage at a job and take related courses, typically working toward a degree. Visit www.doli.virginia.gov.

Volunteerism

You've probably served as a volunteer. Maybe you collected canned goods for a local food bank or raised money for a local nonprofit. Volunteering can help you gain useful skills for a career, such as leadership, public relations, and other business skills. There are also some organizations—such as Teach for America, AmeriCorps, and Peace Corps—that allow participants to gain valuable work experiences through service.

Military

If you want to serve the public, get an education, and earn a paycheck, you should consider a career in the armed forces. The military offers on-the-job training that can apply to many civilian careers. To enlist you must be at least 17 and have a high school diploma.

Community colleges

Offering quality education at a financial bargain, community colleges have been experiencing a tremendous amount of growth, and enrollment is expected to continue to grow. Community colleges offer degrees that can lead straight to jobs as well as degrees that can be used to transfer to four-year colleges. Through system-wide agreements, students who graduate from one of Virginia's 23 community colleges with associate's degrees and minimum grade point averages may obtain guaranteed admission to more than 20 of the commonwealth's colleges and universities. Visit www.vawizard.org/vccs/TransferGAA.action.

Four-year colleges or universities

A degree at a four-year college or university is required for some careers, but optional for others. Make sure you choose a college or university that matches your career interests. You won't have to declare a major right away, but use the career Web sites on page 4 to narrow down your choices. That way you'll ensure that you start college with the confidence that you are in the best place to obtain your marketable skills and enter the workforce.

Proprietary colleges/career colleges

Perhaps you want a four-year college degree in the future but don't feel ready right now. Proprietary colleges often offer flexible class schedules and are designed to meet the scheduling needs of full-time workers. These schools can offer everything from bachelor's and master's degrees to specific career and technical training. Be sure to evaluate each school for their credentials, cost, school placement, and loan opportunities. ■

Job versus career

Find a more fulfilling future

You've heard of a dream job, but what about a dream career? What's the difference between a job and a career? Put simply, a job is work you might select randomly without consideration of your interests, goals, or skills. However, a career involves planning your course, learning the necessary skills, and deciding on the places to apply based on your interests, skills, and work values.

Ultimately, you will be happier if you take the time to develop a career plan, but it won't be something you'll decide in an afternoon. It's more of a lifetime process, and you'll need to work at it. You can start exploring options now. Explore work-based learning opportunities (see page 12) that will help you decide whether a career option is right for you.



Look for electives related to your career interests. For instance, if you're interested in the fine arts, take a drama class, or help with a play to learn the essentials behind production.

The correct career choice may bring personal as well as profes-

sional satisfaction and afford you the lifestyle you want. The wrong choice can leave you frustrated.

If you want a fulfilling career—not just a job—take action now, and get organized. The next stage of your life will happen whether you are ready or not! ■

A black and white photograph of two students, a young woman and a young man, looking at books together in a library or study area. The woman is on the left, holding a book, and the man is on the right, also holding a book. They are both looking down at the books with interest. The background is a blurred library setting with bookshelves.

Exploration/Knowledge

This is a time in your life when you can explore what you are interested in, and NSU provides that opportunity by offering dozens of potential paths for you to follow. One of those new interests may lead you to a career you never considered, or it may become a lifelong hobby. Perhaps you will simply revel in the knowledge for its own sake. This is your time to choose.

Explore your possibilities today!
Apply Now at nsu.edu

Infinite Possibilities.
NORFOLK STATE UNIVERSITY

The NSU logo is a yellow circle. Inside the circle, the letters 'NSU' are prominently displayed in a bold, sans-serif font. Below 'NSU', the words 'NORFOLK STATE UNIVERSITY' are written in a smaller, all-caps font. Below the circle, the website address 'nsu.edu' is written in a small, lowercase font.

What is an industry credential?

Will you have to earn one to graduate?

Beginning in the 2013–2014 school year, all 9th-grade students planning to earn a Standard Diploma will be required to earn an industry credential. Many students, parents, and teachers don't know a lot about industry credentials, how to earn them, or how they can help you after graduation. Knowledge is power, and since you are taking control of your academic and career planning, you need to know. So, read on!

There are a lot of Career and Technical Education (CTE) courses that provide students the technical knowledge needed to earn a credential. That credential may give you an advantage over others when pursuing further education and a career.

Here are some frequently asked questions that may help you as you move forward with plans for high school graduation and industry credentials.



1. What is an Industry Credential Examination?

It is an exam that assesses your knowledge in a specific technical area. If you successfully complete certain courses within a CTE area and pass an approved exam, you can earn one (or even two) verified credits required for graduation.

2. How do I earn a credential for graduation?

You must pass an exam from a list of credentialing exams that have been approved by the Virginia Board of Education (see question # 3). Each exam has a passing score, and if you pass the exam, you have earned that credential AND you have also completed the new graduation requirement. But the best news is you have a certificate in hand that you can be proud of and can use to help you as you move forward with plans after high school.

3. Which industry credentials will satisfy the graduation requirement?

There are a bunch! There are more than 300, and they are on a list that is approved by the Virginia Board of Education. The list can be found at this link—http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/cte_credentials/industry_certifications_2014.pdf. You may have heard of many of these exams: Microsoft Office Word, PowerPoint, and Excel; the Workplace Readiness Skills for the Commonwealth Examination; the Career Readiness Certificate; and Skills USA are just a few.

The easiest way to determine what credential fits best with a CTE course you are taking is to discuss it with your teacher or school counselor.

4. When is the best time to take a credential test?

It is usually best to take a credentialing test right after completing a course or courses that cover the material on the exam. Makes sense, right?

5. What does the credential do for me?

Earning an industry credential does not guarantee you a job, but it does look great on your résumé and job application and very well may be the deciding factor in your hiring over someone without a credential. Credentials are valued by employers as a demonstration of workers' knowledge, skills, and, experience.

6. What is the Virginia Workplace Readiness Skills for the Commonwealth Examination?

It is a credentialing exam that will meet the new requirement for earning a Standard Diploma. Employers from Virginia worked together to determine the kind of behaviors and skills that students need to enter any work environment and have the skills necessary to meet workplace expectations. A good work ethic, problem solving, speaking, listening, creativity, teamwork, and Internet safety are just a few of the behaviors and skills covered by this exam.

The information for this exam is covered in every CTE course offered in Virginia, so if you have taken a CTE course, you have covered these skills and have a good chance of passing the exam and meeting the requirement for earning a Standard Diploma. For more information about Virginia's Workplace Readiness Skills and the certification, see http://www.cte-resource.org/featured/workplace_readiness.html.

**Need more information?
See your CTE teacher or school counselor!**

Academic and career plans

Plan it, learn it, and earn it! School counselors and career coaches will help.

The choices you are making now and in the next few years of high school will impact your life for years to come. They also may impact your future earning potential. Don't feel overwhelmed by the process of planning for your future. Your school can provide a wealth of assistance for college and career planning that includes school counselors, career coaches, and teachers. Plan wisely now. The courses you choose and how well you do in them will convey your aspirations to an employer or college adviser.

Here are some simple steps to help you along.

Plan It!

See your school counselor. School counselors are licensed professionals trained to assist you with academic and career planning. They also help you deal with personal and social issues that may be standing in the way of you doing your best.

See a career coach. High school career coaches are based in many local high schools to help students transition to work and/or further education. Community colleges partner with local high schools in employing more than 110 career coach specialists in more than 165 high schools across Virginia. Check with your school counselor to see if there is a career coach at your school.

Take an interest assessment. Ask your school counselor or career coach about starting an account on the Virginia Education Wizard. It's a great online planning system that allows you to collect information about your interests, skills, and values by taking simple assessments.



From left to right: School counselor Carol Griffiths, senior student Destini Walker, and career coach Cindy Knupp, from Meadowbrook High School in Chesterfield County.

Research career areas.

Take time to research some career areas that interest you. There are many different careers in specific clusters, so take your time. Look at the particulars of each career, such as salary, skills/education, and work environment, and begin to narrow down some of them for further exploration.

Map out a plan for graduation and post-graduation.

With the information from your research, develop a plan with your school counselor to help you reach your goals. Take some courses that are

related to the careers you researched. They may be career and technical courses, advanced mathematics or science courses, and/or other academic and elective courses.

Learn It!

Challenge yourself academically. Most high school graduates, upon reflection, wish they had taken more challenging courses and wish they had been pushed harder by their teachers. Potential employers and colleges may be more impressed by respectable grades in demanding courses than by outstanding

grades in easy ones. So take rigorous courses, and push yourself while in high school so you don't have to catch up later.

Revise and edit as needed. After creating your plan, visit your school counselor often to seek advice in revising it. This is a sign that you are really taking control of your future. This is your plan, so craft it wisely.

Earn It!

The more you learn, the more you earn!

Here's a big reason to go to college: your earning power goes up. The graphic below illustrates the earnings premium that a college degree gives you.

The power to earn grows with each higher level of education. Of course, you are not guaranteed these salaries. To achieve your desired income, you will need to consider your career choice and earn your degree or certificate. Plan well, and it will pay later!

See your school counselor and a career coach. Your success is at the heart of why they come to work every day. ■

2013 Median U.S. Earnings by Educational Attainment (for workers age 25 and older)



www.aie.org/plan-for-college/is-college-for-me/learn-more-earn-more.cfm

Governor's academies

Governor's STEM Academies are designed to expand options for students to acquire STEM (Science, Technology, Engineering, and Mathematics) literacy and other critical skills, knowledge, and credentials that will prepare them for careers in Virginia. Each academy is a partnership among school divisions, postsecondary institutions, and business and industry.

Governor's Career and Technical Academy for Renewable Resources and Agricultural Sciences —Halifax County
Greater Peninsula Governor's STEM Academy —Hampton City
Governor's Career and Technical Academy in Arlington (GCTAA) —Arlington County
FIRST: Fostering Innovation and Relevance Through STEM and Trades —Suffolk City
STEM for LIFE (Life-Long Initiatives for Future Education) —Russell County
Stafford Academy for Technology (STAT) —Stafford County
Loudoun Governor's Career and Technical Academy —Loudoun County
Governor's Career and Technical Academy for Engineering Studies —Chesterfield County
Governor's Career and Technical Education Academy for STEM in Richmond —Richmond City
The Blue Ridge Crossroads Governor's Academy for Technical Education (BRCGATE) —Carroll County
Governor's STEM Academy for Engineering, Marketing, and Information Technology Studies —Virginia Beach City
The Grassfield High School Governor's STEM Academy —Chesapeake City
Governor's STEM Academy at Chantilly High School —Fairfax County
Governor's STEM Academy at the Burton Center for Arts and Technology —Roanoke County
The Bridging Communities Governor's STEM Academy —New Kent County
Lynchburg Regional Governor's STEM Academy —Lynchburg City
Heritage High School Governor's STEM Academy —Newport News City
Northern Neck Technical Center Governor's STEM Academy for Agriculture and Maritime Studies —Richmond County
Pulaski County Public Schools Governor's STEM Academy
Governor's STEM Academy at George C. Marshall High School —Fairfax County
Governor's STEM Academy at Harrisonburg High School —Harrisonburg City
Governor's STEM Academy at Christiansburg High School —Montgomery County
Architecture and Applied Arts Governor's STEM Academy —Hampton City

Governor's Health Sciences Academies are programs designed to expand options for students' health science literacy and other critical knowledge, skills, and credentials that will prepare them for high-demand, high-wage, and high-skills careers in five career pathways: Therapeutic Services, Diagnostic Services, Health Informatics, Support Services, and Biotechnology Research and Development. Each academy is a partnership among school divisions, postsecondary institutions, and business and industry.

Albemarle County Public Schools Governor's Health Sciences Academy
Chesterfield County Public Schools Governor's Health Sciences Academy
Superintendent's Region 8 Governor's Health Sciences Academy —Cumberland County
Falls Church Governor's Health Sciences Academy —Fairfax County
Clifford S. Hardison Governor's Health Sciences Academy —Fairfax County
Gloucester County Public Schools and Mathews County Public Schools Governor's Health Sciences Academy
Hampton City Public Schools Governor's Health Sciences Academy
Newport News Schools and York County Public Schools Governor's Health Sciences Academy
Bedford County Public Schools Governor's Health Sciences Academy

Don't limit your options

Explore nontraditional careers

Don't limit your thinking when it comes to your future. By venturing into a field not traditional for your gender, you may uncover opportunities you never imagined and earn a great living too.

Nontraditional careers are those in which there are three males for every one female, or vice versa. Surprisingly, many of these careers offer great job opportunities, but you may have to step out of your comfort zone a little bit to prepare for them. When you study for one of these careers, you're usually in a class that's overwhelmingly female or overwhelmingly male.

Check out the table below, which shows the 25 fastest-growing jobs from 2010 to 2020, according to recent projections from the Virginia Employment Commission.



You will spot some familiar examples in this table: more males than females are biomedical engineers; more females than males are physical therapist aides. These nontraditional careers not only need workers — and will in the future — but also offer great salaries. Biomedical engineers (nontraditional for females) earn on average \$91,000 a year. Nontraditional careers for males offer a lot of great opportunities too. Dental hygienists, for example, can bring in an average salary of \$68,000.

You can study for these careers in high school Career and Technical Education (CTE) classes, and, for the careers in bold, you'll probably be in a nontraditional class. Visit the CTE Trailblazers Web site, www.ctetrailblazers.org, for more information on nontraditional careers. ■

Virginia's fastest growing occupations (2010–2020)

The table below lists the 25 fastest-growing jobs from 2010 to 2020, according to projections from the Virginia Employment Commission. Students can prepare, or begin preparing, for almost all of these jobs that are considered nontraditional, through CTE courses. Nontraditional are those jobs that employ predominantly females or predominantly males. Bolded careers are nontraditional.

Occupation	% Growth	Occupation	% Growth
1 Personal care aides	70.5	13 Physical therapist aides	43.1
2 Home health aides	69.4	14 Glaziers	42.4
3 Biomedical engineers	61.7	15 Interpreters and translators	42.2
4 Helpers—brickmasons, blockmasons, stonemasons, and tile and marble	60.1	16 Medical secretaries	41.3
5 Helpers—carpenters	55.7	17 Market research analysts and marketing specialists	41.2
6 Veterinary technologists and technicians	52.0	18 Marriage and family therapists	41.2
7 Reinforcing iron and rebar workers	48.6	19 Brickmasons and blockmasons	40.5
8 Physical therapist assistants	45.7	20 Physical therapists	39.0
9 Helpers—pipelayers, plumbers, pipefitters, and steamfitters	45.4	21 Dental hygienists	37.7
10 Meeting, convention, and event planners	43.7	22 Bicycle repairers	37.6
11 Diagnostic medical sonographers	43.5	23 Audiologists	36.8
12 Occupational therapy assistants	43.3	24 Health educators	36.5
		25 Stonemasons	36.5

Source: Employment projects program, U.S. Department of Labor, U.S. Bureau of Labor Statistics

Work-based learning

Get a jumpstart on your career with these opportunities



Work-based learning opportunities provide you with a chance to experience the work world now, before you leave high school. These experiences will let you interact with adults working in careers you may wish to pursue and will help you decide whether the career is right for you. If you are interested in any of the following options, visit your school counselor to discuss available opportunities.

Job Shadowing

Accompanying a working professional

If you are looking to get a snapshot of what a particular job is like, you may want to consider job shadowing. During this short-term, on-site work experience, you can get a sense of the day-to-day activities of a certain career. Job shadowing is a quick way to discover whether a career is for you. Maybe you think you'd like to be a doctor, but aren't sure if you are squeamish around blood. Ask the person you are shadowing a lot about what they do. Discover the pros and

cons of each career, ask what he or she would do differently if starting out again, and if he or she would choose the career again.

Service Learning

Applying your skills to community service

If you enjoy helping out in your community, you might consider a service-learning opportunity. With guidance from a teacher or counselor, you can identify an issue in the community and help develop a solution. Service learning is also a good way to test your ability to work with a team and to help other people achieve their goals.

Cooperative Education

Earning money and high school credit

Cooperative education (often called "co-op") is an opportunity for a student to combine classroom instruction with paid employment. The school and the employer supervise and coordinate instruction time as well as hands-on work so that each component contrib-

utes to the student's career objectives. Cooperative education opportunities are available in a variety of career fields.

Internship

Trying out a job

Internships allow you to test drive a career. Not only will internships let you know if you enjoy the work, they will look great on a résumé or college application. Some are paid, and some are not, but the value of an internship comes in understanding what a job is really like and in developing a network of future employment contacts. See the Web resources listing on page 4 for Web sites that are helpful in finding internships.

Mentorship

Developing a trusting relationship with a working professional

Mentorship is another way to explore a particular career, but it goes beyond job shadowing. While spending time in a workplace, you have the opportunity to develop a relationship with an accomplished worker or executive who will provide guidance, support, feedback, and instruction. Often, he or she can provide you with personal and career-development advice.

Clinical Experiences

Health and medical training

Clinical experiences give health and medical students the opportunity to apply their classroom knowledge with clinical practice. Students are not paid, but they learn the basic skills, behaviors, and attitudes needed for professional competence in the healthcare field. See page 13.

Student Apprenticeship

Learning and earning

Apprenticeships allow students to learn while earning a paycheck. Apprentices use job skills, while reinforcing academic instruction under the guidance of a supervisor. Often, apprentices can earn a degree or industry credential while working. ■

Work-based learning: Clinical experiences

Health and medical training

by Karen T. Westermann

Nena Abernathy wanted to be a neurosurgeon—until she discovered she did not like blood. Fortunately, her high school, Mount Vernon in Alexandria, was part of the Clifford S. Hardison Governor's Health Sciences Academy. Nena knew that she still wanted to pursue a career in the medical field, so she researched ones that did not involve blood. Physical and occupational therapy sounded interesting.

In her junior year, Nena took year one of Physical/Occupational Therapy and completed the second year during her senior year. She loved the hands-on aspect of the program. For example, there was the clinical observation where Nena's placement was at The Anderson Orthopaedic Clinic. For six weeks, students spent 15 to 20 hours a week observing all aspects of what it's like to work in a particular clinic, hospital, or outpatient facility. They were allowed to participate, but only when legally appropriate.

Nena also took part in the Head Start program, which is actually within the high school itself. She, along with other PT/OT students, developed one activity per month to help children of about age five on their gross motor movement.

Moving on to children a bit older, Nena and her classmates went once a month to an elementary school to work on a fine-motor occupational therapy activity with students with multiple disabilities.

The one aspect of the program that Nena did not participate in takes place at the Pulley Career Center, attended by students high school age and up to age 22 who have multiple diagnoses. Once a week, PT/OT students help plan a program of simple fitness activities for Pulley's students.

Another aspect of Nena's high school experience that she really enjoyed and which strengthened her career path was being a member and the historian of a student-run organization called HOSA (Health Occupations Students of America) during her two years at the Academy. She highly recommends this to other students.



This past June, Nena graduated from high school. She attends George Mason University in Fairfax and continues to work at The Anderson Orthopaedic Clinic. She has decided to stay

in the medical field but would like to go into health and medical services management with a double major of health administration and business administration. ■



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Charting your own path

Nathan Latka launched a social media company while in college.

Interview with Nathan Latka, entrepreneur — founder of Heyo, a company based in Blacksburg, Virginia, that helps primarily small business owners produce custom social media fan pages for their products or services (<https://heyo.com>)

by Karen T. Westermann

A bit of background

Nathan Latka, a 24-year-old Leesburg native, is a 2008 graduate of Loudoun County High School who was inspired to start his own company, Heyo, during his junior year at Virginia Tech. Nathan worked on his business idea in his dormitory, and in six months, he cleared \$70,000 in sales. Nathan turned all of his focus to his entrepreneurial venture, and in its first year, Heyo took in \$400,000.

Recently, I had the pleasure of talking to Nathan about his company, how entrepreneurs think, what makes them put their ideas into action, their passion, and importantly, how they ignite that passion and keep the fire going.

Westermann: How do you define an entrepreneur?

Latka: You always have a curious mindset. You are tackling a problem in your own life and find that it is a problem that many others have, and they are willing to pay to have it solved, and you are the one who finds a way to solve it.

Westermann: Do you think of yourself solely as an entrepreneur?

Latka: No, I am willing to work for anyone who wants to solve a big problem that is life- and world-changing.

Westermann: When did you recognize that you were an entrepreneur?

Latka: When people started calling me one.

Westermann: Did you stumble upon being an entrepreneur, or was it planned?

Latka: Stumbled, crawled ...



Westermann: What motivated you to start this business, to strike out on your own?

Latka: I saw my classmates graduating from a prominent architecture college who were unable to get jobs. Also, there was the downward economic spiral and building lull. It was fear and insecurity that motivated me. And I am a problem-solver — how can I figure out a better way?

Westermann: If you had to offer your quick reflections on Heyo, what would they be?

Latka: Futuristic, customer-focused, not the normal.

Westermann: Nathan, I have just started performing puppet skits. How would HEYO help me?

Latka: We work across all social platforms, and I would set up your fan page, get “likes” for your business, and emails from people interested in your skits. We focus on emails and sales. If you think about it, it would cost you a lot of money to hire developers and designers to set up and manage your site. For \$30 a month, we manage it for you.

Westermann: Are you hiring at Heyo?

Latka: We are always looking for talent, the younger the better. We have positions for customer care, bloggers, and engineers. We are especially interested in developers who want to intern for a fast-growing startup.

Westermann: It sounds like you work a lot of hours. Is that the case?

Latka: I work all the time, but I do get my sleep. I love what I do, so rather than being overwhelmed, I’m excited.

Westermann: What would you like to say that I have not asked you?

Latka: There are a lot of people who search their entire lives to work on a problem that will save the world in some way. There are 20 million small businesses, and Heyo saves them four hours a month. We are building a team that will build the most powerful social marketing tool for small businesses. ■

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*2013 Survey of Employers,
Association of American
Colleges & Universities



Career and Technical Student Organizations

Career and Technical Student Organizations, commonly referred to as CTSOs, are designed to support you in certain career and technical education (CTE) programs. You can get a head start on your college and career preparation, whether your goal is to become a teacher, doctor, automotive technician, or computer programmer. CTSOs serve more than 75,000 Virginia students.

What do CTSOs do?

CTSOs provide activities and experiences that help you gain career, leadership, and personal skills to help you grow into outstanding employees and citizens.

Which CTSOs are active in Virginia's schools?



DECA:

<http://www.vadeca.org>

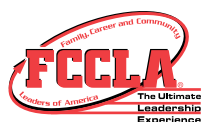
Program area: Marketing



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

<http://www.vafbla-pbl.org>

Program area: Business and Information Technology



Family, Career and Community Leaders of America (FCCLA):

<http://www2.mecc.edu/fccla>

Program area: Family and Consumer Sciences



Future Educators Association® (FEA):

<http://futureeducators.org>

Program area: Family and Consumer Sciences



Health Occupations Students of America (HOSA):

<http://www.vahosa.org>

Program area: Health and Medical Sciences



Virginia FFA Organization:

<http://www.vaffa.org>

Program area: Agricultural Education



SkillsUSA:

<http://vaskillsusa.org>

Program area: Trade and Industrial Education



Technology Student Association (TSA):

<http://viriniatsa.org/about-us/>

Program area: Technology Education

“CTSOs prepare students for individual and group leadership, responsibilities to the family, school, community, state and nation.”

Steven R. Staples, Ed.D.
Superintendent of Public Instruction
Virginia Department of Education

What are the benefits of CTSOs?

Students involved with CTSOs

- develop interpersonal and leadership skills
- develop responsibility and self-confidence
- improve communication and public-speaking skills
- develop problem-solving and decision-making skills
- develop skills for being a role model and mentor
- refine career objectives through realistic experiences
- develop a sense of community and volunteerism
- prepare for multiple roles and responsibilities to the family, school, community, state, and nation.

See your school counselor or a CTE teacher for more information on becoming involved with a CTSO!

Career Clusters

Find your future calling



Scan this code for information on Career and Technical Education in Virginia.

Confucius, the Chinese philosopher, said, "Choose a job you love, and you will never have to work a day in your life." While cliché, this statement is very true. You likely will spend most of your waking hours at work, so it's best if you enjoy what you are doing.

Career Clusters are used to help students explore various career opportunities and the steps they'll need to achieve their goals. These clusters are designed to help prepare you now for your post-high school training and career options.

The clusters identify pathways that lead from middle and high school to apprenticeships, two- and four-year colleges, graduate school, and the workplace.

If you need help determining which



of the 16 nationally recognized Career Clusters is right for you, you can sit down with a school counselor who will ask about your likes, dislikes, interests, talents, and abilities. Also, you can take a career assessment to find career options that match both your interests and skills and explore online options at the Web sites listed on page 4.

The following pages provide information to help you choose a career. You can read about former high school

students who are pursuing their dreams. You'll see how these students applied their classroom learning to careers. In addition, many of them used work-based learning to find out if their career choices were right for them and to get ahead.

These profiles will also include a basic description of the future job outlook, the number of opportunities in Virginia, and salary ranges for each career.

Employment and salary data on the following Career Clusters pages are based on 2013 data from the U.S. Bureau of Labor Statistics. The salary range includes annual salaries earned by the 10th and 90th percentile of employees in each career. The education level information shows the typical education level required for entry-level positions. ■

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ELISSA SANFORD

Hickory HS (2012 – GPA: 4.5)
May 2014 graduate of TCC
Accepted to The College of William & Mary and Old Dominion University Honors College; plans to study pre-med



HEZROY HAMMIL

Oscar Smith HS (2012 – GPA: 4.1)
May 2014 graduate of TCC
Accepted to Virginia Tech; plans to study robotics



MEGHAN ROVER

Landstown HS (2013 – GPA: 3.7)
After TCC, plans to transfer to George Mason University to study mathematics

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Agriculture, Food & Natural Resources

Traditional agriculture has come a long way. Today's farmers are using technology to help them gauge the right amount of water and fertilizer to use. Biofuels also are changing agriculture's societal role, as energy companies look for ways to produce clean energy. This career cluster is ideal for people who enjoy working outdoors with plants and animals, being innovative, and finding ways to balance progress with environmental stewardship.

▼ Job outlook

The need for conservation scientists and foresters is expected to grow 3 percent through 2022. This is a slower growth rate than average, but job opportunities will be created as many workers in the industry are close to retirement age. Growing demand for American timber and wood pellets and the need to restore forests after major wildfires will help increase job opportunities.

Job growth for veterinarians is expected to be around average, or 12 percent. The need for veterinary services is growing as medicine advances

and more people take their pets to the vet. Job competition is tough, however. Jobs working with large animals are less competitive than care of dogs and cats.

The number of farmers, ranchers, and agricultural managers is expected to decrease 19 percent from 2012 to 2022 because of the increased consolidation of larger farms. However, small-scale farmers are finding success with niche farms, such as growing organic foods or selling products at the increasingly popular urban and suburban farmers markets.

Providing solutions to animal health

by Veronica Garabelli

Allen Heishman first caught the attention of his current boss while participating in a public speaking contest at a Virginia Future Farmers of America convention in Blacksburg.

"[I] never officially met him that day, but he thought I was a good speaker and watched me from then on," says Allen, now a sales representative at Bayer Animal Health, where he sells medicine and insecticides for cattle, poultry, pigs, and horses in Virginia, West Virginia, Maryland, Delaware, and part of Pennsylvania.

Allen started participating in FFA in seventh grade. FFA is an organization that helps students develop leadership, career success, and personal growth through agricultural education. Allen also was required to participate in FFA and gain field experience as part of Central High School's Agriculture Education program.

After graduating from high school, Allen became president of Virginia's FFA chapter and earned his FFA degree, the highest level of state membership an FFA member can achieve. But that's not the only degree Allen has under his belt. He also earned a degree in animal and poultry science from Virginia Tech and participated in the school's Block and Bridle organization, a club for students interested in animal agriculture.

After college, Allen worked on a farm in New York for nine months but returned home after Bayer offered him his current job.

"Growing up, I always thought I wanted to get away, and when I was away I wanted to move back to the Valley and I wanted to farm. That was my opportunity to do two things at once: to have a good paycheck and farm," says Allen, who also owns Heishman Cattle Co., a cattle-raising business.

Allen advises students to be active in high school, something that greatly affected his career path.

Allen encourages high schoolers to be open to all job opportunities. "There's nothing more important to you than taking those opportunities and either learning something new, or trying something new because you don't know where that'll help you end up or lead you in the not so distant future," Allen says. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Environmental engineering techs	470	\$29K–\$74K	Associate's degree
Environmental scientists	3,300	\$39K–\$113K	Bachelor's degree
Farm and home management advisers	420	\$25K–\$76K	Master's degree
Foresters	240	\$37K–\$83K	Bachelor's degree
Landscapers, groundskeepers	24,780	\$18K–\$38K	Less than high school
Logging equipment operators	830	\$21K–\$48K	High school diploma
Natural sciences managers	1,410	\$66K–\$187K+	Bachelor's degree
Nonfarm animal caretakers	5,250	\$17K–\$33K	Less than high school/High school
Pest control workers	2,100	\$20K–\$48K	High school diploma
Tree trimmers and pruners	750	\$20K–\$53K	High school diploma
Vet assistants	3,080	\$17K–\$36K	High school diploma
Veterinarians	2,140	\$53K–\$150K	Doctoral or professional degree
Veterinary techs	1,770	\$21K–\$44K	Associate's degree
Zoologists and wildlife biologists	210	\$37K–\$95K	Bachelor's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Allen Heishman II

Sales Representative,
Bayer Animal Health, Edinburg

Central High School,
Shenandoah County Public Schools

CTE studies: Agricultural Business;
Agricultural Production

Additional studies: Bachelor's in
Animal and Poultry Science,
Virginia Tech



American Society of Agronomy	www.agronomy.org
American Society of Farm Managers and Rural Appraisers	www.asfmra.org
American Veterinary Medical Association	www.avma.org

Architecture & Construction

The construction of homes, businesses, hospitals, and schools requires a wide range of skills to build, maintain, and renovate. Careers in this cluster are responsible for the details of designing, constructing, and equipping these buildings. This includes the architects designing the look and flow of the building, the carpenters and stone masons building its walls, and the electricians and installers of heating and air conditioning.

▼ Job outlook

Job prospects in this career cluster fluctuate with the economy. During a good economy, businesses and governments have more money to build and renovate their buildings, and builders respond to demand to build more homes and business centers. Jobs can be tough to find, however, during slow economic times.

The need for architects is expected to grow 17 percent between 2012 and 2022. There is likely to be a higher demand for construction of new healthcare centers as the baby boomer population ages. Because of a growing number of graduates with architectural degrees, competition is expected to be tough. Those with

sustainable design skills will likely have the most success as businesses become more interested in energy savings.

The need for carpenters is expected to grow 24 percent through 2022, as population growth encourages homebuilding. Job prospects will vary by geography and be best in regions of population growth.

Jobs for civil engineers are expected to increase 20 percent as they are needed to manage projects to rebuild bridges and repair roads as infrastructure ages. A growing population also means that new water systems will be required and older ones must be maintained.

Designing a blueprint for success

by Veronica Garabelli

Sayiddah McCree's architecture career has taken her to some high places—literally. One project led her to ride up a scaffold to the top of a 33-story building. "The scaffolds are scary, but it actually is kind of cool to be out there doing the work," says Sayiddah, a senior project manager at Koenigsberg Engineering, which focuses on the assessment and restoration of building façades in Chicago and New York.

Sayiddah began working at Koenigsberg Engineering in 2010 as an intern. Today she inspects building façades for clients who want to renovate buildings, outlines what repairs are needed, and determines how much they will cost. Sayiddah then monitors the repair process until the project is completed. She has worked on projects ranging from \$750,000 to \$1.5 million.

"I love architecture because you're able to shape a space and make it better or safer," Sayiddah says. "That's what I do right now, it's about health, safety, and welfare."

Sayiddah developed an interest in the field as a child, where she helped with renovation projects around her house. At first, she wanted to be an interior designer but decided architecture was a better fit because she was good at mathematics. In high school, she took courses in technical drafting and architectural drawing and design. The latter course taught her to question what she was drawing, why she was drawing it, and what the drawing would be used for.

In 10th grade, local entrepreneur Roy G. Gignac encouraged Sayiddah to apply for a scholarship through his fund at The Community Foundation of the Dan River Region. The scholarship encourages students to pursue STEM fields and preferably attend Gignac's alma mater, the Illinois Institute of Technology (IIT) in Chicago. Sayiddah followed through and received a scholarship to the school, which paid for her education and housing at IIT.

Sayiddah received a master's in integrated building delivery in 2012 from IIT, but she's not done learning yet. She recently completed the UCLA Anderson School of Management's Rioridan Fellows Program, which prepares college graduates to apply and succeed in a top MBA program and a career in management. Sayiddah plans to apply for an MBA this fall to help her achieve her ultimate goal—improving housing in underserved communities. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Architects	2,610	\$45K–\$119K	Bachelor's degree
Architectural and civil drafters	1,650	\$32K–\$74K	Associate's degree
Brick masons and block masons	2,530	\$29K–\$79K	High school diploma
Carpenters	16,720	\$25K–\$73K	High school diploma
Cement masons and concrete finishers	4,530	\$24K–\$66K	Less than high school
Civil engineering technicians	2,350	\$30K–\$72K	Associate's degree
Civil engineers	8,210	\$52K–\$126K	Bachelor's degree
Construction equipment operators	9,490	\$28K–\$74K	High school diploma
Construction laborers	19,840	\$20K–\$59K	Less than high school
Construction managers	5,250	\$50K–\$146K	Bachelor's degree
Electricians	16,940	\$31K–\$84K	High school diploma
First-line supervisors of construction trades and extraction workers	17,290	\$37K–\$95K	High school diploma
Heating, AC, and refrigeration mechanics and installers	9,080	\$27K–\$70K	Postsecondary non-degree award
Interior designers	990	\$26K–\$89K	Bachelor's degree
Painters, construction and maintenance	6,050	\$23K–\$62K	Less than high school
Plumbers, pipe fitters, and steamfitters	10,690	\$30K–\$86K	High school diploma

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Sayiddah McCree

Senior Project Manager,
Koenigsberg Engineering,
Chicago and New York

George Washington High School,
Danville City Public Schools

CTE studies: Drafting; Architectural
Drawing and Design; Principles of
Technology; Computer Networking
Hardware Operations

Additional studies: Bachelor's
of Architecture and Master's of
Integrated Building Delivery, Illinois
Institute of Technology, Chicago

Associated Builders and Contractors www.abcva.org
Associated General Contractors of Virginia www.agcva.org
The American Institute of Architects www.aia.org

Arts, Audio/Video Technology & Communications

If you thrive on creativity and excitement, then a career in the arts may be for you. This career cluster covers a variety of artistic endeavors, from performers to backstage technicians to graphic designers. It also encompasses all forms of communication and media. Most of these fun careers are extremely competitive.

▼ Job outlook

Like most industries today, job prospects for many careers in the Arts, Audio/Visual Technology & Communications cluster are best for people comfortable working with the latest technology. Job growth for photographers is expected to be only 4 percent through 2022. Digital technology has made the barrier into the market less difficult, so competition is stiff. Salaried, full-time positions are especially difficult to find for photographers. Companies often prefer to hire a freelance photographer than have one on staff. Photographers who have digital editing skills will have better job opportunities.

The digital age is also affecting the need for editors and writers. The number

of editors is expected to remain the same through 2022, and competition for jobs will be especially tough in print media. The need for writers and authors is expected to grow 3 percent by 2022. Online publications will hold the best job opportunities for both occupations.

Overall, employment for graphic designers is expected to grow 7 percent, but the job market is better for tech-savvy applicants. Designers are needed to create images for portable devices, Web sites, and electronic publications, so the need for computer systems designers is expected to grow 35 percent by 2022, while the jobs for book and newspaper designers are expected to decline 16 percent.

Creating the perfect image

by Veronica Garabelli

Haley Harrington is only 20 years old, but she already works for one of the most well-known organizations in the world, the National Geographic Society in Washington D.C. The 126-year-old nonprofit organization aims to inspire people to care about the planet through its publications, museum, sites, and television channel, among other avenues.

As an imaging technician at the National Geographic Society, Haley color matches, scans, and edits images for other departments at the society, as well as surrounding museums, businesses, and individual clients. Haley's department also recently reprinted images for an artist who was exhibiting art in Germany but didn't want to transport the original artwork to Europe. She also prints orders for consumers when they order personalized books, maps, and magazines from the National Geographic Web site. If it sounds like Haley handles many different tasks, it's because she does, but that's also one of the things she enjoys the most about her job.

"It's really cool to be able to learn so many different things and continue doing anything that's put on your plate," she says.

Haley began working at the Society through her high school's Senior Experience, a three-week unpaid internship program that allows students to gain experience in the workplace. She was then hired as a part-time contract worker for the imaging department. After two summers as a contractor, she applied for her current position, opting to transfer from Virginia Commonwealth University in Richmond to George Mason University in Fairfax to be closer to her new gig. She's currently juggling a full-time job at the National Geographic Society and studying at GMU part time. She expects to graduate in 2018 with a Bachelor of Fine Arts in Art and Visual Technology with a concentration in photography. Eventually, she would like to own her own photography business.

Besides participating in the Senior Experience program in high school, Haley also took commercial photography and was editor-in-chief of her school's art and literature magazine. In those classes, she learned how to use Adobe Photoshop and InDesign, software programs she uses in her job today. She recommends that students who are interested in photography take advantage of the programs their high school offers. "I did that, and it helped me considerably," she says. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Print binding and finishing workers	1,200	\$19K–\$47K	High school diploma
Broadcast technicians	750	\$19K–\$74K	Postsecondary education (associate's degree/non-degree award)
Craft and fine artists	80	\$18K–\$65K	High school diploma
Camera operators	190	\$21K–\$92K	Bachelor's degree
Desktop publishers	410	\$20K–\$65K	Associate's degree
Editors	3,440	\$29K–\$106K	Bachelor's degree
Fashion designers	70	\$34K–\$127K	Bachelor's degree
Graphic designers	5,060	\$27K–\$79K	Bachelor's degree
Audio visual and multimedia specialists	180	\$25K–\$73K	Bachelor's degree
Photographers	1,100	\$18K–\$66K	High school diploma
Prepress technicians	970	\$22K–\$59K	Postsecondary non-degree award or associate's degree
Printing press operators	3,910	\$20K–\$55K	High school diploma
Producers and directors	1,540	\$32K–\$187K	Bachelor's degree
Telecommunications installers/repairers	3,770	\$31K–\$76K	Postsecondary non-degree award
Writers and authors	1,360	\$28K–\$117K	Bachelor's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics

NATIONAL
GEOGRAPHIC

STORE

Haley Harrington

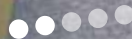
Imaging Technician,
National Geographic Society,
Washington, D.C.

T.C. Williams High School,
Alexandria City Public Schools

CTE studies: Commercial Photography

Fine arts studies: Editor-in-chief, Arts and
Literature magazine

Additional studies: Pursuing a Bachelor of
Fine Arts in Art and Visual Technology,
George Mason University



National Association of Broadcasters
Professional Photographers of America
Screen Actors Guild.....

www.nab.org
www.ppa.com
www.sag.com

Business Management & Administration

It takes a variety of skill sets to make a business or organization run properly. Hospitals, professional offices, law firms, and corporate headquarters require bookkeepers, administrative assistants, and benefits specialists to keep their operations running smoothly. Some of these jobs require specialized training, such as legal and medical secretaries.

▼ Job outlook

Increasing regulations are boosting the need for bookkeeping, accounting, and auditing clerks. The need for these jobs is expected to grow 11 percent through 2022. Job growth for this industry, as in many careers in this cluster, is determined by the strength of the economy. Opportunities should remain good for these careers because they are needed in many businesses.

The employment of human resources specialists is expected to grow 7 percent between 2012 and 2022. Growth is faster in the employment services industry as more firms outsource their

hiring. Job growth should be faster for more skilled and experienced workers. The need for human resources managers is expected to grow 13 percent by 2022 as companies are required to comply with a growing number of regulations, such as those under the Affordable Care Act.

Job growth for secretaries is expected to vary by industry. Jobs for medical secretaries are expected to grow 36 percent because of the aging population. The need for legal secretaries is expected to drop 3 percent as more law firms give their work to legal assistants and paralegals.

Blending business and marketing skills

by Veronica Garabelli

Raquel Babb helped organize an auction this year that raised more than \$400,000 for athletic scholarships at the College of William & Mary.

"I love being able to be part of something I enjoy because as I grew up, I played sports all of my life, and just being able to put together such fun and profitable events ... makes it even better in order to help someone else's dream come true," Raquel says.

As the assistant to the director of special events for athletics at the College of William & Mary, Raquel helps organize multiple events a year for sports teams and athletic scholarships. Raquel designs marketing materials and invitations for upcoming events and also is in charge of event logistics, such as purchasing food, ordering supplies, and booking hotels. She also updates the College of William & Mary's athletic Web site, develops mass emails, and stays in contact with alumni and vendors regarding athletic events.

Raquel learned a lot of the foundational skills she uses in her current job in high school. She regularly uses Microsoft Word and Excel, programs she learned in her Computer Information Systems classes. Her senior year she also took courses in business management and fashion marketing.

"That definitely stuck out to me because that's something I've always been interested in, just learning different aspects of marketing and how you have to incorporate that within your business in order to be successful," she says about the fashion marketing class.

In fact, Raquel wants to one day open her own women or teen's clothing store. She also would like to attend the Flex MBA Program at the College of William & Mary's The Raymond A. Mason School of Business.

Raquel advises others who want to go into her field to follow their dreams, even if they have to go about it a different way. She notes that when she was first applying for college, she applied for the fashion-merchandising program but didn't get in because she applied too late. As an alternative, she chose retail marketing and it turned out to be a better choice for her. "All in all, I learned more about business because it's such a broad spectrum, and, honestly, it took me farther—so never give up," she says. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Administrative assistants and secretaries	39,970	\$20K–\$49K	High school diploma
Administrative services managers	4,580	\$45K–\$145K	Bachelor's degree
Bill and account collectors	9,070	\$22K–\$49K	High school diploma
Bookkeeping and accounting clerks	44,280	\$22K–\$55K	High school diploma
Business operations specialists	32,350	\$36K–\$113K	Bachelor's degree
Chief executive	6,000	\$75K–\$187K+	Bachelor's degree
Claims adjusters	4,930	\$37K–\$91K	High school diploma
Compensation, benefits specialists	2,240	\$38K–\$94K	Bachelor's degree
Customer service representatives	52,330	\$20K–\$51K	High school diploma
Legal secretaries	3,370	\$26K–\$69K	High school diploma
Medical secretaries	5,990	\$22K–\$46K	High school diploma
Medical transcriptionists	1,680	\$23K–\$48K	Postsecondary non-degree award
Operations research analysts	4,760	\$42K–\$130K	Bachelor's degree
Property managers	2,320	\$27K–\$114K	High school diploma
Sales managers	5,970	\$54K–\$187+	Bachelor's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Raquel Babb

Assistant to the Director of
Special Events for Athletics,
College of William & Mary,
Williamsburg

Heritage High School,
Newport News City Public
Schools

CTE studies: Business
Management; Fashion
Marketing; Computer
Information Systems;
Advanced Computer
Information Systems;
Keyboarding

Additional studies: Bachelor's
in Retail Marketing, Virginia
Commonwealth University

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The Leadership Development Organization.....	www.nma1.org
American Institute of Certified Public Accountants.....	www.aicpa.org
National Association of Legal Professionals	www.nals.org

Education & Training

Education offers some of the most meaningful careers available with opportunities to influence the future. Teachers have a good amount of vacation time compared with other careers, but they spend many nights and weekends grading papers or developing lesson plans. Elementary education is a great choice for people who are interested in working with younger children, while high school educators often have passion for specific subject matters, such as mathematics or history.

▼ Job outlook

Job prospects for teachers vary widely by geography and specialty. For example, special education teachers are always in demand, even though job opportunities are expected to grow only 6 percent by 2022. Special education teachers are harder to come by than elementary and high school teachers.

In addition, geography plays a big role in job openings. For example, in the Northwest, the number of people who want to teach often outnumber

available jobs, while schools in the Southeast often face a shortage of workers. It is also more difficult to find a teaching job in a suburban school district than it is in a rural or urban setting.

As research continues to highlight the importance of early childhood education, growth in the number of childcare workers is expected to increase 14 percent by 2022. Job growth is expected to be 17 percent for daycare administrators as more working parents need care for their children.

Inspiring the future

by Veronica Garabelli

Tamela Warren was unsure of her career path until her senior year of high school.

"I was between nursing and teaching, but after enrolling and taking the Teachers for Tomorrow program, I decided that teaching was what I really wanted to do and had a passion for," she says.

Through Virginia Teachers for Tomorrow, a program that recruits high school students to become teachers, Tamela first experienced teaching. She says the class taught her to be innovative and think outside the box, skills she uses today as a fifth-grade teacher at Union Hall Elementary School in Ringgold. Her innovation paid off last year, for example, when she and co-worker Mindy Takacs won a \$13,000 "teacher creativity" grant from the Danville Pittsylvania County Chamber of Commerce to buy iPads for their classrooms.

Tamela majored in Interdisciplinary Studies for Elementary Education at Hampton University where she was a student teacher and also a substitute teacher. Shortly after graduating in 2011 she landed her job at Union Hall Elementary School and has been teaching about 20 students a year ever since.

"My favorite part about my job is building student-teacher relationships to help me connect with each student individually so I'm better able to help every student succeed," says Tamela, who tries to teach her fifth-grade students responsibility, accountability, and organization before they head to middle school.

In the future, Tamela envisions joining school administration. She wants to become a principal and eventually, a superintendent. She advises high school students who want to follow in her footsteps to be passionate about teaching and to not be afraid to stand out from the pack. "We all have various talents and strengths, and we have to capitalize on our own talents to do our jobs to the best of our ability," she says. ▶

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Adult basic and secondary teachers	2,780	\$29K–\$85K	Bachelor's degree
Archivists	140	\$28K–\$84K	Master's degree
Childcare workers	16,280	\$16K–\$30K	High school diploma
Coaches and scouts	6,820	\$17K–\$67K	Bachelor's degree
CTE teachers, secondary school	3,550	\$39K–\$82K	Bachelor's degree
Curators	320	\$28K–\$88K	Master's degree
Education administrators, K–12	6,410	\$59K–\$128K	Master's degree
Education administrators, postsecondary	2,170	\$50K–\$171K	Master's degree
Education administrators, preschool	980	\$28K–\$88K	Bachelor's degree
Elementary school teachers	35,990	\$36K–\$84K	Bachelor's degree
Fitness trainers, aerobics instructors	7,950	\$18K–\$67K	High school diploma
Librarians	4,490	\$33K–\$86K	Master's degree
Middle school teachers	17,030	\$37K–\$83K	Bachelor's degree
Preschool teachers	10,070	\$18K–\$50K	Associate's degree
Secondary school teachers	23,230	\$37K–\$87K	Bachelor's degree
Special education teachers (K–12)	13,080	\$36K–\$90K	Bachelor's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Tamela Warren

Fifth Grade Language Arts and
History Teacher,
Union Hall Elementary School,
Chatham

Dan River High School, Pittsylvania
County Public Schools

CTE studies: Virginia Teachers for
Tomorrow

Additional Studies: Bachelor's
in Interdisciplinary Studies for
Elementary Education, Hampton
University

.....www.aft.org
American Federation of Teachers.....www.veanea.org
Virginia Education Association.....www.doe.virginia.gov
Virginia Department of Education

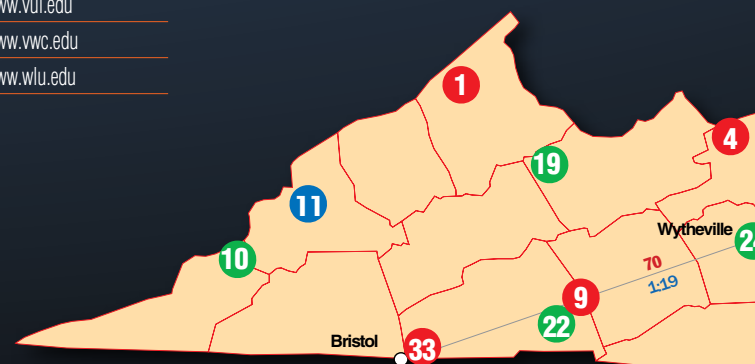
Virginia Colleges a

Private Colleges

1	Appalachian School of Law	Grundy	www.asl.edu
2	Atlantic University	Virginia Beach	www.atlanticuniv.edu
3	Averett University	Danville	www.averett.edu
4	Bluefield College	Bluefield	www.bluefield.edu
5	Bridgewater College	Bridgewater	www.bridgewater.edu
6	Catholic Distance University	Hamilton	www.cdu.edu
7	Christendom College	Front Royal	www.christendom.edu
8	Eastern Mennonite University	Harrisonburg	www.emu.edu
9	Emory and Henry College	Emory	www.ehc.edu
10	Ferrum College	Ferrum	www.ferrum.edu
11	Hampden-Sydney College	Hampden-Sydney	www.hsc.edu
12	Hampton University	Hampton	www.hamptonu.edu
13	Hollins University	Roanoke	www.hollins.edu
14	Institute for Psychological Sciences	Arlington	www.ipsciences.edu
15	Institute of Textile Technology	Charlottesville	www.itt.edu
16	Jefferson College of Health Sciences	Roanoke	www.jchs.edu
17	Liberty University	Lynchburg	www.liberty.edu
18	Lynchburg College	Lynchburg	www.lyncburg.edu
19	Mary Baldwin College	Staunton	www.mbc.edu
20	Marymount University	Arlington	www.marymount.edu
21	Medical College of Hampton Roads-EVMS	Norfolk	www.evms.edu
22	Patrick Henry College	Purcellville	www.phc.edu
23	Randolph-Macon College	Ashland	www.rmc.edu
24	Randolph College	Lynchburg	www.randolphcollege.edu
25	Regent University	Virginia Beach	www.regent.edu
26	Roanoke College	Salem	www.roanoke.edu
27	Shenandoah University	Winchester	www.su.edu
28	Southern Virginia University	Buena Vista	www.svu.edu
29	Sweet Briar College	Sweet Briar	www.sbc.edu
30	Union Presbyterian Seminary	Richmond	www.upsem.edu
31	University of Richmond	Richmond	www.richmond.edu
32	Virginia International University	Fairfax	www.viu.edu
33	Virginia Theological Seminary	Alexandria	www.vts.edu
34	Virginia Union University	Richmond	www.vuu.edu
35	Virginia University of Lynchburg	Lynchburg	www.vul.edu
36	Virginia Wesleyan College	Norfolk	www.vwc.edu
37	Washington and Lee University	Lexington	www.wlu.edu

Community & Junio

- 1 Blue Ridge Community College
- 2 Central Virginia Community College
- 3 Dabney S. Lancaster Community College
- 4 Danville Community College
- 5 Eastern Shore Community College
- 6 Germanna Community College
- 7 J. Sargeant Reynolds Community College
- 8 John Tyler Community College
- 9 Lord Fairfax Community College
- 10 Mountain Empire Community College
- 11 New River Community College
- 12 Northern Virginia Community College
- 13 Patrick Henry Community College
- 14 Paul D. Camp Community College
- 15 Piedmont Virginia Community College
- 16 Rappahannock Community College
- 17 Richard Bland College
- 18 Southside Virginia Community College
- 19 Southwest Virginia Community College
- 20 Thomas Nelson Community College
- 21 Tidewater Community College
- 22 Virginia Highlands Community College
- 23 Virginia Western Community College
- 24 Wytheville Community College



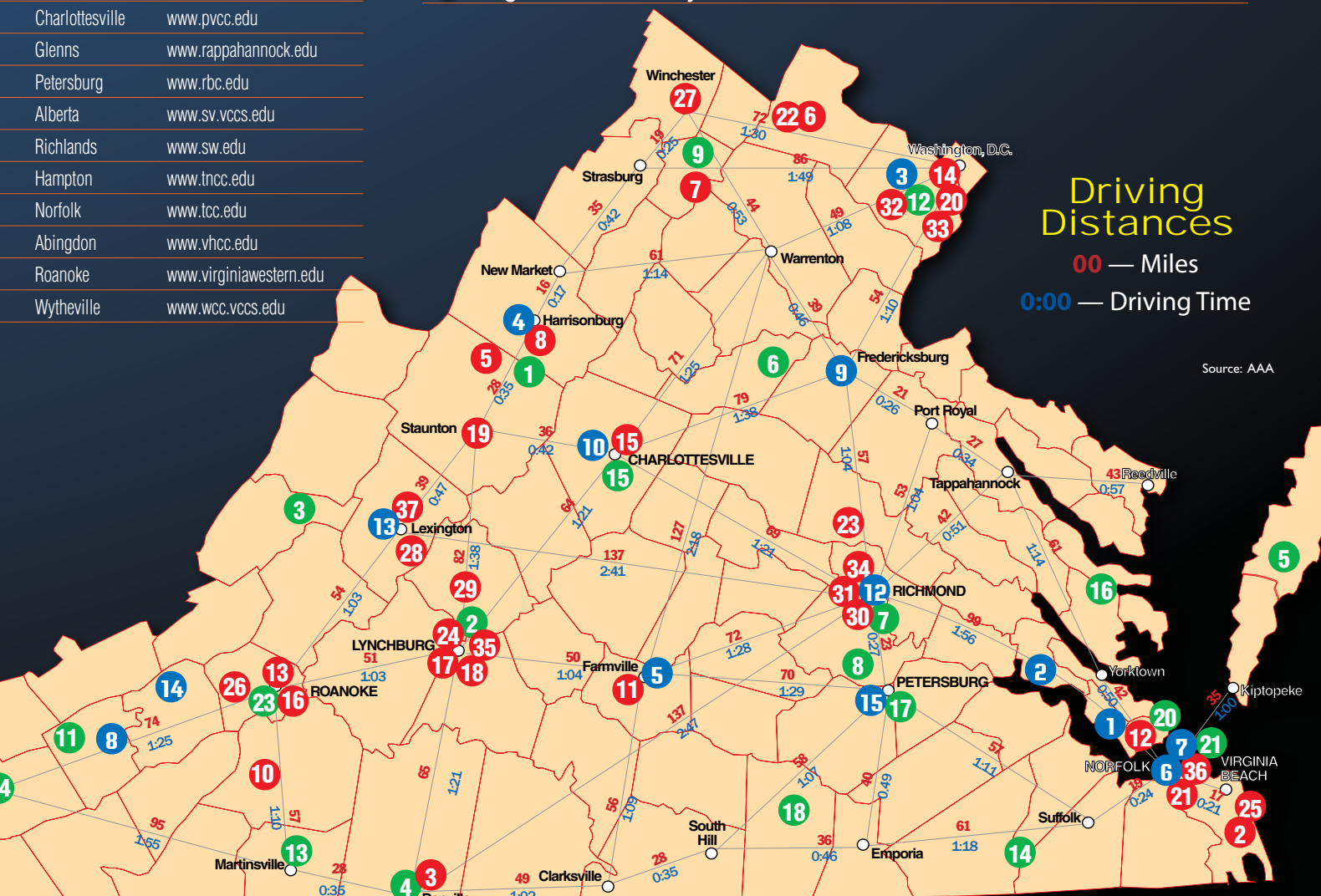
nd Universities

r Colleges

Weyers Cave	www.brcc.edu
Lynchburg	www.cvcc.vccs.edu
Clifton Forge	www.dslcc.edu
Danville	www.dcc.vccs.edu
Melfa	www.es.vccs.edu
Locust Grove	www.germanna.edu
Richmond	www.jsr.vccs.edu
Chester	www.jtcc.edu
Middletown	www.lfcc.edu
Big Stone Gap	www.me.vccs.edu
Dublin	www.nr.vccs.edu
Annandale	www.nvcc.edu
Martinsville	www.ph.vccs.edu
Franklin	www.pdc.edu
Charlottesville	www.pvcc.edu
Glenns	www.rappahannock.edu
Petersburg	www.rbc.edu
Alberta	www.sv.vccs.edu
Richlands	www.sw.edu
Hampton	www.tncc.edu
Norfolk	www.tcc.edu
Abingdon	www.vhcc.edu
Roanoke	www.virginiawestern.edu
Wytheville	www.wcc.vccs.edu

Public Colleges

1	Christopher Newport University	Newport News	www.cnu.edu
2	College of William & Mary	Williamsburg	www.wm.edu
3	George Mason University	Fairfax	www.gmu.edu
4	James Madison University	Harrisonburg	www.jmu.edu
5	Longwood University	Farmville	www.longwood.edu
6	Norfolk State University	Norfolk	www.nsu.edu
7	Old Dominion University	Norfolk	www.odu.edu
8	Radford University	Radford	www.runet.edu
9	University of Mary Washington	Fredericksburg	www.umw.edu
10	University of Virginia	Charlottesville	www.virginia.edu
11	The University of Virginia's College at Wise	Wise	www.wise.virginia.edu
12	Virginia Commonwealth University	Richmond	www.vcu.edu
13	Virginia Military Institute	Lexington	www.vmi.edu
14	Virginia Polytechnic Institute and State University	Blacksburg	www.vt.edu
15	Virginia State University	Petersburg	www.vsu.edu



Jobs in the financial industry require detail-oriented employees who are good with numbers. This cluster offers a variety of careers but may require long hours.

▼ Job outlook

The need for accountants is expected to grow 13 percent between 2012 and 2022. Employment at the largest accounting firms will remain competitive, and job prospects are best for those with a CPA license.

Demand for personal financial advisers is expected to grow rapidly—27 percent—through 2022 as the baby boom generation retires and seeks financial advice. These advisers also are becoming increasingly important as pensions become less common, leaving workers more responsibility for their own retirement plans.

Job prospects for economists will be best for those who have Ph.D. or master's degrees. The profession is expected to grow 14 percent by 2022 as businesses need economic analysis to help navigate the complexity of the global economy. Competition will be strong for those who have a bachelor's degree instead of a master's or doctoral degree.

The need for insurance sales agents is expected to grow 10 percent by 2022. These jobs tend to ebb and flow with the overall economy, and growth will be somewhat tempered by the ability to buy and compare insurance online.

Gaining big dividends from Accounting classes

by Veronica Garabelli

Lauren Graf had a job lined up with KPMG LLP—one of the largest accounting firms in the world—before graduating from college.

"That's the good thing about the accounting field—that's very common in this field," says Lauren, an audit associate in the company's Norfolk office.

That's not to say Lauren hasn't worked hard to get to where she is today. As an accounting major at the University of Richmond, Lauren helped found the school's professional business fraternity, Alpha Kappa Psi. She also participated in six accounting externships, which are similar to internships but generally shorter. After completing her externships (four which were with the "Big Four" accounting firms, which includes KPMG), Lauren was admitted into KPMG's global internship program and did half her internship in Norfolk and the other half in Dublin, Ireland. She finished that internship in the summer of 2012 and by October of 2013 she had received an offer letter from KPMG.

As an audit associate at KPMG, Lauren works with a team that audits clients' financial statements. She says her favorite part about her job is also the biggest challenge. "Everything is always new; there's not a lot of consistency," she says. "You really have to be ready to learn in this career field. If you were looking for the easy way out, this is not that job."

Lauren took her first accounting class in high school because she was always interested in finance and ended up loving the class.

"Once I started taking the classes, I liked the way it worked," she says. "It came pretty easily to me."

The classes also gave her a leg up when taking her first accounting classes in college, which were "almost a review" of the accounting principles she learned in high school. She advises high school students who want to become accountants to take advantage of opportunities that come their way because "you never know what will happen," she says. "Really take your classes seriously because in the end it will pay off, and I believe that I am proof of that." ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Accountants and auditors	39,280	\$40K–\$114K	Bachelor's degree
Budget analysts	3,520	\$46K–\$104K	Bachelor's degree
Credit analysts	1,720	\$39K–\$119K	Bachelor's degree
Credit authorizers and clerks	2,320	\$24K–\$52K	High school diploma
Economists	1,060	\$50K–\$158K	Master's degree
Financial analysts	8,760	\$48K–\$152K	Bachelor's degree
Financial managers	13,140	\$61K–\$187K+	Bachelor's degree
Financial services, securities, and commodities sales agents	4,450	\$32K–\$187K+	Bachelor's degree
Insurance appraisers (auto)	380	\$44K–\$87K	Postsecondary non-degree award
Insurance sales agents	9,380	\$26K–\$118K	High school diploma
Insurance underwriters	2,330	\$39K–\$112K	Bachelor's degree
Loan interviewers and clerks	6,000	\$24K–\$52K	High school diploma
Loan officers	7,150	\$33K–\$123K	Bachelor's degree
Personal financial advisers	3,990	\$33K–\$187K+	Bachelor's degree
Real estate appraisers and assessors	1,240	\$27K–\$94K	Bachelor's degree
Tax preparers	1,950	\$19K–\$80K	Bachelor's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics

The KPMG logo is displayed in large, blue, stylized letters at the top of the image, which is shown on a tablet screen. The background of the image is a photograph of a woman, Lauren Graf, standing in an office setting with large windows in the background.

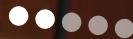
Lauren Graf

Audit Associate,
KPMG LLP,
Norfolk

Hickory High School,
Chesapeake City Public Schools

CTE studies: Accounting; Advanced
Accounting

Additional studies: Bachelor's in
Business Administration, University
of Richmond; CPA licensure
pending



American Bankers Association

www.aba.com

The American Accounting Association.....

www.aaahq.org

Financial Planning Association

www.fpanet.org

Government & Public Administration

People who work in the Government & Public Administration career cluster typically feel a sense of civic duty. Local, state, and federal governments offer a variety of jobs, including social workers, court clerks, and postal service workers. People with government jobs are typically paid less than those with similar jobs in the private sector, but retirement and health plans often are better.

▼ Job outlook

Competition is strong for federal government jobs. People who have strong internships and a good academic background will be most likely to succeed.

Job opportunities for urban and regional planners are expected to increase 10 percent by 2022 and will be driven by population growth and environmental concerns. Planners are important as growing populations require extensive infrastructure planning.

The number of postal service jobs is expected to decline 28 per-

cent by 2022 as mail sorting becomes more automated and the government seeks to cut expenses. Still, job openings will be created by retirements.

Employment of construction and building inspectors is expected to grow 12 percent by 2022 because of concern over the need for quality construction and public safety. Job prospects are best for those who can perform a variety of inspections and have some training or work experience in the construction, engineering, or architecture industries.

Executing public policy

by Veronica Garabelli

Aaron S. Van Allen credits his alma mater, Hampden-Sydney College, with leading him to his current career path.

"I think that's where I really began my appreciation for public service, and Hampden-Sydney really showed me the direction that I wanted to go in my life," says Aaron, now a district representative and service academy coordinator for U.S. Congressman Bob Goodlatte (VA-6).

In his present role, Aaron handles casework, questions, and concerns that constituents in his district have with the federal government. For example, if a veteran in his district applies for disability benefits through the U.S. Department of Veterans Affairs, hasn't heard back, and wants to receive an update on the claim, he or she can contact Goodlatte's office for help.

He also processes applications for constituents in his district who are seeking a congressional nomination to attend one of the four service academies in the U.S. (Applicants must receive a nomination from their congressman, the president, or the vice president when applying to The U.S. Military Academy at West Point; Naval Academy in Maryland; Merchant Marine Academy in New York; and the Air Force Academy in Colorado).

Aaron's favorite part about his job is having his "boots on the ground," so to speak. "I am going out into the communities, and I'm having those one-on-one conversations with constituents and hearing the concerns that they have, and I thoroughly enjoy doing that," he says.

Aaron has been serving as a liaison since high school, when he was a Western Area vice president and then president of Virginia DECA, where his responsibilities included connecting with students and administrators in the organization to make sure it was running smoothly. Aaron participated in the student organization, which helps students launch careers in marketing, management, hospitality, and finance, while taking marketing courses at Tunstall High School. Participation in those activities helped him pick up networking, communication, and organizational skills he still uses today.


While Aaron doesn't plan to run for public office, he says he would enjoy being a chief of staff for a member of congress. Next year, he expects to graduate from Liberty University with a Master of Public Policy. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Construction, building inspectors	3,280	\$33K–\$85K	High school diploma
Court reporters	170	\$26K–\$93K	Postsecondary non-degree award
Court, municipal, license clerks	2,040	\$23K–\$53K	High school diploma
Eligibility interviewers (government programs)	3,510	\$28K–\$56K	Associate's degree
Financial examiners	1,280	\$45K–\$146K	Bachelor's degree
Healthcare social workers	2,670	\$32K–\$75K	Bachelor's degree/ Master's degree
Legislators	720	\$17K–\$85K	Bachelor's degree
Mental health and substance abuse social workers	3,430	\$26K–\$69K	Bachelor's degree/ Master's degree
Postal service clerks	2,050	\$26K–\$56K	High school diploma
Postal service mail carriers	7,620	\$34K–\$58K	High school diploma
Postmasters, mail superintendents	510	\$51K–\$85K	High school diploma
Tax examiners, collectors	1,610	\$31K–\$93K	Bachelor's degree
Urban and regional planners	1,360	\$41K–\$98K	Master's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Aaron S. Van Allen

District Representative/Service Academy
Coordinator,
Congressman Bob Goodlatte (VA-6),
Lynchburg

Tunstall High School,
Pittsylvania County Public Schools

CTE studies: Marketing; DECA

Additional studies: Bachelor's in
Political Science and Government with
a minor in public service, Hampden-
Sydney College; Pursuing a Master of
Public Policy in Public Administration at
Liberty University, Lynchburg

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The Council of State Governments.....	www.csg.org
National League of Cities	www.nlc.org
Federal Government Job Site	www.usajobs.gov

Health Science

This cluster prepares you to help keep people healthy and treat those who are not. Work directly with people by conducting research on diseases and other important health information. This field allows you to work in diverse environments such as hospitals, medical and dental offices, and cruise ships.

▼ Job outlook

If you are looking for an in-demand career, explore opportunities in this cluster. People are in need of healthcare regardless of economic conditions and an increased push for health insurance will mean more people will seek healthcare.

Increased demand for prescription drugs will create good job opportunities for pharmacists (which is expected to increase 14 percent), and pharmacy technicians (anticipated to grow by 20 percent.) Prescriptions should increase because of the aging population, the growth of chronic diseases, an increase in advanced drugs, and additional people obtaining

health insurance under the Affordable Health Act.

Career prospects are good for most health professions. By 2022, jobs for dentists are expected to grow 16 percent, the need for registered nurses should rise 19 percent, and employment of surgeons and physicians, 18 percent.

If you are interested in a health-care career but don't want to complete the education or certifications many of them require, consider a career as a home health aide. Those careers are expected to grow 48 percent by 2022 as the elderly population grows, and people want to reside in their homes rather than a long-term care facility.

Planning a prescription for success

by Veronica Garabelli

Before even graduating from high school, Tiasara Arties was working toward her first professional certificate: becoming a licensed pharmacy technician.

"Toward the end, when state boards were coming up, we had a lot of tests," says Tiasara about the Pharmacy Technician Program she took at Norfolk Technical Center her senior year of high school.

Tiasara was well prepared, passed the test, and became a licensed pharmacy technician, but her ambitions didn't stop there. She enrolled at Hampton University and started working as a pharmacy technician at Wal-Mart in Norfolk. After two years at Hampton, she was accepted into the university's pharmacy program, where she expects to graduate in 2016 with a Doctor of Pharmacy degree. She's still getting hands-on experience by interning part time at the Wal-Mart pharmacy where she processes prescriptions, communicates with insurance companies, and most importantly, interacts with patients.

"My favorite part about being a technician is really my patients," says Tiasara. "They are the reason why I do it, because you build those connections with people, and it's a way to give back in a medical way."

Tiasara always wanted a career in the medical field, but it wasn't until participating in Norfolk Technical Center's Pharmacy Technician Program that she decided to pursue pharmacy. Pharmacy had a lot of pluses: it gave her a chance to interact with people, enabled her to use her mathematics and science skills, and provided room for job growth. As part of the Pharmacy Technician Program, Tiasara gained the basic mathematics and science skills required for the job and learned how to interpret prescriptions, troubleshoot insurance problems, and communicate with patients versus pharmacy professionals.

After she receives her Pharm.D., Tiasara would like to continue her post-graduate training at a residency program.

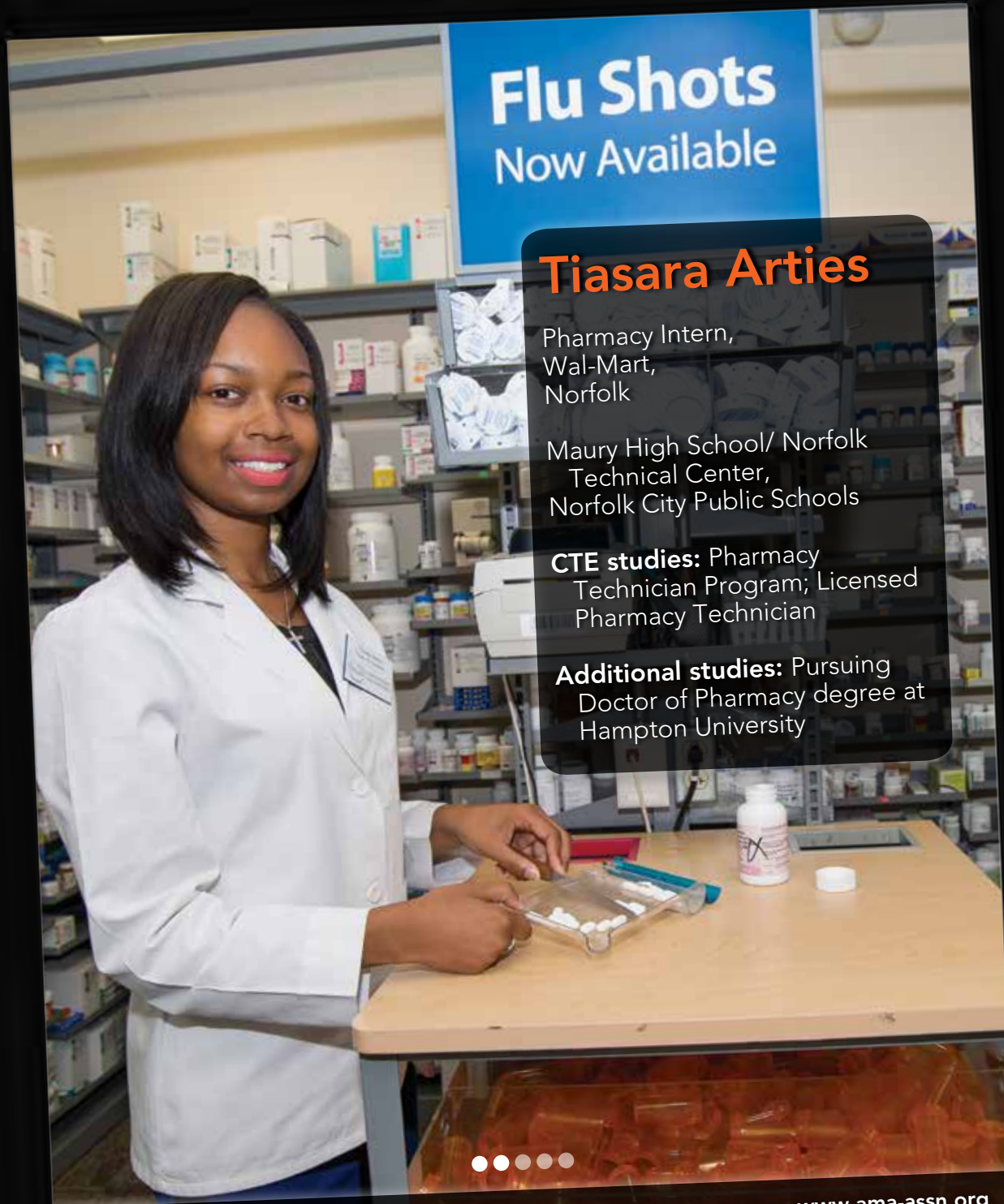
Tiasara tries to relay the message of getting an early jump-start to a career when she gives job advice to high school students. She also stresses the importance of mentors, noting that she didn't know about the pharmacy program at Hampton until a counselor told her about it. "When you have those people who you can shadow and who can give you advice, that really opens the door for a lot of things," she says. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Dental hygienists	4,240	\$48K–\$97K	Associate's degree
Emergency medical techs, paramedics	4,630	\$20K–\$55K	Postsecondary non-degree award
Home health aides	9,600	\$17K–\$29K	Less than high school
Licensed practical nurses	21,760	\$31K–\$58K	Postsecondary non-degree award
Medical assistants	10,840	\$21K–\$42K	Postsecondary non-degree award
Medical laboratory technicians	3,630	\$25K–\$59K	Associate's degree/Postsecondary non-degree award
Medical laboratory technologists	3,990	\$40K–\$81K	Bachelor's degree
Medical, health services managers	6,120	\$55K–\$155K	Bachelor's degree
Nursing assistants	37,360	\$19K–\$36K	Postsecondary non-degree award
Opticians, dispensing	1,970	\$21K–\$54K	High school diploma
Pharmacists	7,410	\$89K–\$147K	Doctoral and professional degree
Pharmacy technicians	8,750	\$21K–\$43K	High school diploma
Physical therapists	4,920	\$56K–\$113K	Doctoral and professional degree
Physicians and surgeons	7,060	\$56K–\$187K+	Doctoral and professional degree
Radiologic technologists	5,140	\$38K–\$78K	Associate's degree
Registered nurses	60,120	\$46K–\$96K	Associate's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Tiasara Arties

Pharmacy Intern,
Wal-Mart,
Norfolk

Maury High School/ Norfolk
Technical Center,
Norfolk City Public Schools

CTE studies: Pharmacy
Technician Program; Licensed
Pharmacy Technician

Additional studies: Pursuing
Doctor of Pharmacy degree at
Hampton University

American Medical Association www.ama-assn.org
American Pharmacy Association www.pharmacists.org
American Dental Association www.ada.org

Hospitality & Tourism

If you want to work in a career involving travel, food, or event planning, this career cluster is for you. These jobs include travel agents, who help people plan their ideal vacation, and chefs and bakers who prepare their own culinary masterpieces. Many of these jobs require working nights and weekends.

▼ Job outlook

Interested in event planning? Demand for meeting, convention, and event planners is expected to grow 33 percent by 2022 as meetings are becoming increasingly important with businesses scattered in a growing global economy. Planners with a bachelor's degree and a Certified Meeting Professional credential will have the best opportunities.

The need for lodging managers is expected to change little through 2022. Although the tourism industry is

expected to grow, fewer managers are needed with the increase in limited-service hotels that don't require managing large departments. Career prospects will be best for applicants with a bachelor's degree in hospitality or hotel management.

Job growth for chefs is expected to be 5 percent through 2022. Most job openings will come from high turnover in this fast-paced industry. Jobs are most competitive at luxury restaurants, where the pay typically is better.

Advancing through the hotel industry

by Veronica Garabelli

Ashley Pilarski was often in and out of hotels as a child, traveling with her father who was a human resources executive at Marriott.

"I think I threw around the idea of being a teacher a couple of times, but otherwise I was like, 'I think I'm going to work in hotels,'" says Ashley.

Ashley first interned at a hotel her senior year of high school as part of Marshall Academy's Hotel Management course. The academy allows students in Fairfax County Public Schools to take career and technical education courses.

"It gave you that kind of ... real world experience," Ashley says about the course. "You rotated through a couple of different departments at the hotel, and I think that gives you a better feel for the industry."

When it was time to go to college, Ashley enrolled at Johnson & Wales University in Charlotte, N.C., majoring in Hotel Management with a concentration in sales. During the program she got more hands-on experience in the hotel industry, completing an externship at The Ballantyne Hotel & Lodge, a 214-room hotel in the area. After graduating, Ashley worked as a front desk agent at Buffalo Marriott Niagara in New York for about six months until landing a sales coordinator job at Hotel Sierra, a small boutique hotel in Sterling. When Hotel Sierra was bought out by Hyatt, she transferred to Hyatt Regency Reston, where she was a meeting connections manager until she was promoted to her current sales manager position.

As a sales manager, Ashley sells hotel rooms with or without meeting space to corporate and government clients. Her favorite part about her job? Closing a sale. "It's really rewarding for a client to request a contract and to actually...book it," she says. Ashley's ultimate career goal is to become a director of sales, "with a stop in national sales along the way," she says. The hotel industry provides a lot of room for growth and opportunities to transfer to different departments; aspects she noted when asked what advice she would give to high school students eager to enter the field.

"There's always something, so just jump in and...take a job in a hotel, even if it's not exactly what you have your heart set on," Ashley says. "Work hard, push yourself, and show everybody what you want to be, and you know it'll pay off." ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Bakers	2,790	\$17K–\$37K	Less than high school
Bartenders	8,620	\$16K–\$33K	Less than high school
Chefs and head cooks	2,570	\$24K–\$74K	High school diploma
Cooks, restaurant	29,150	\$17K–\$32K	Less than high school
Fast food cooks	8,240	\$16K–\$23K	Less than high school
Food preparations workers	18,670	\$17K–\$29K	Less than high school
Food service managers	3,650	\$31K–\$82K	High school diploma
Hotel desk clerks	7,120	\$17K–\$30K	High school diploma
Lodging managers	820	\$29K–\$92K	High school diploma
Meeting, convention, and event planners	3,850	\$26K–\$80K	Bachelor's degree
Recreation workers	11,860	\$17K–\$39K	Bachelor's degree
Reservation and transportation ticket agents and travel clerks	3,800	\$20K–\$51K	High school diploma
Travel agents	1,440	\$20K–\$58K	High school diploma
Waiters and waitresses	64,760	\$16K–\$30K	Less than high school

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Ashley Pilarski

Sales Manager,
Hyatt Regency,
Reston

Langley High School/Marshall
Academy,
McLean/Falls Church,
Fairfax County Public Schools

CTE studies: Hotel
Management at Marshall
Academy

Additional studies: Bachelor's
in Hotel Management,
Johnson & Wales University,
Charlotte, N.C.

American Association of Travel Agents.....

www.asta.org

National Restaurant Association

www.restaurant.org

Virginia Hospitality and Travel Association

www.vhta.org

Human Services

This cluster prepares you for jobs in which you help families and individuals with life services. You can assist people through early childhood care, mental health services, or personal care services. This diverse cluster requires individuals to have superior communication and problem-solving skills to provide various levels of support.

▼ Job outlook

Demand for mental health counselors and marriage and family therapists is expected to grow rapidly—29 percent—by 2022. Insurance companies increasingly are covering mental health services, and the number of military veterans seeking mental health treatment is expected to grow. Likewise, demand for rehabilitation counselors is expected to grow 20 percent over the same time period as the elderly population grows.

The need for substance abuse and behavioral disorder counselors also is expected to grow quickly—31 percent by 2022. Demand for these

jobs may increase as states look to rehabilitate drug offenders rather than requiring them to serve jail time.

In addition to counseling, many human services careers have to do with beauty. Demand for hairdressers and cosmetologists is expected to increase 13 percent by 2022. Job prospects are good because of turnover in the industry, but competition will be tough for jobs in high-end salons. Job growth for manicurists and pedicurists is expected to grow 16 percent by 2022, as many people see nail services as an affordable luxury.

Guiding force

by Veronica Garabelli

Heather Campbell once stood in the shoes of some of the children she works with. Growing up she didn't have a supportive family system and, at age 17, legally emancipated herself from her parents.

"I try to talk to the kids that I'm working with now that they still have that option to better themselves or do what they want to do even though they don't have that family support," says Heather, a family services specialist at Shenandoah Valley Social Services.

As part of her job, Heather handles anywhere from 15 to 20 cases at a time, mostly working with older teenagers who have been placed in foster care. Her job involves a lot of moving components, including working to return the foster children to their families and acting as their legal guardian. Heather also works with adults up to age 21 who aged out of foster care but could still benefit from the services. In order to participate in that independent living program, participants must be involved in an educational or vocational program. "I enjoy that part of the job the most," says Heather, who helps the young adults become self-sufficient by teaching them basic life skills such as budgeting and paying utilities.

Heather's been helping to strengthen families since high school when she participated in Family, Career, and Community Leaders of America, a nonprofit that addresses important personal, work and societal issues through Family and Consumer Sciences education. Heather, who also took family and consumer science courses, remembers FCCLA projects where she helped raise awareness about domestic violence and substance abuse. In fact, she credits FCCLA and her high school Family and Consumer Sciences teacher and courses with pushing her to go to college. "I got a lot of support there, and I think that headed me in the direction I needed to be going," she says. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Child and family social workers	7,770	\$27K–\$72K	Bachelor's degree
Clinical, counseling, and school psychologists	2,500	\$39K–\$112K	Doctoral or professional degree
Dietitians and nutritionists	1,280	\$34K–\$79K	Bachelor's degree
Embalmers	230	\$25K–\$61K	Associate's degree
Funeral attendants	1,470	\$17K–\$35K	Associate's degree
Funeral directors, morticians, and undertakers	520	\$26K–\$80K	Associate's degree
Hairstylists, cosmetologists	11,790	\$17K–\$44K	Postsecondary non-degree award
Manicurists and pedicurists	1,330	\$17K–\$30K	Postsecondary non-degree award
Marriage and family therapists	1,600	\$30K–\$79K	Master's degree
Mental health counselors	7,890	\$26K–\$67K	Master's degree
Rehabilitation counselors	3,470	\$21K–\$60K	Master's degree
Skin care specialists	1,120	\$17K–\$57K	Postsecondary non-degree award
Social, community service managers	2,390	\$37K–\$101K	Bachelor's degree
Social, human service assistants	5,840	\$20K–\$47K	High school diploma

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics

Heather Campbell

Family Services Specialist,
Shenandoah Valley Social Services,
Verona

Riverheads High School,
Augusta County Public Schools

CTE studies: Family and Consumer
Science; Family, Career, and
Community Leaders of America
(FCCLA)

Additional studies: Bachelor's in
Criminal Justice, Radford University

American Counseling Association

National Association for Home Care & Hospice

National Child Care Association

www.counseling.org

www.nahc.org

www.nccanet.org

Information Technology

This cluster gives you the opportunity to design, develop, and manage different types of software programs and hardware. This field requires a solid foundation in mathematics and science as well as high technical skills. Information Technology workers can be found in virtually every sector of the economy and provide assistance on a multitude of levels.

▼ Job outlook

Employment of computer support specialists is expected to grow 17 percent by 2022 as organizations upgrade their computer equipment and software. The introduction of cloud computing could hinder some growth, however. Job growth should be especially good in healthcare and computer systems design firms.

The need for software developers is expected to grow 22 percent because of the rapid growth in demand for computer software appli-

cations. The healthcare industry is increasing rapidly its use of computer systems and applications, and concerns over security could create more investment in security software.

One of the most in-demand careers in this field is information security analysts. Employment growth for these analysts is expected to grow 37 percent by 2022, as cyber attacks have grown in frequency and sophistication over the years. These analysts also tend to be highly paid.

Finding solutions: the I.T. guy

by Veronica Garabelli

They say the proof is in the pudding, but if you want a career in information technology, the proof is in certifications. So says Dillon Underwood, a field technician for the five elementary schools in Bedford County Public Schools' Liberty Zone district.

"That's really going to get your foot in the door. It's going to say I know what I'm talking about, and I like doing this," says Dillon. "Certifications are the most important thing you can do to get into I.T."

The approach has worked for Dillon, who landed a job shortly after high school in the school district he attended. As a field technician, Dillon provides information technology support for computers, printers, and projectors.

During his last two years in high school, Dillon received four I.T. certifications while taking Computer Systems Technology at Bedford Science and Technology Center. While the class taught Dillon the basics of I.T., such as how to configure routers and install Microsoft Windows, it also showed him how to deal with customers, work orders, and workloads.

Since starting his job, Dillon has continued to stack his credentials. His employer recently paid for his CompTIA Network+ certification, which proves his skills as a network technician. Dillon says he'll probably work toward the CompTIA Security+ certification next. "That focuses more on security and how to protect a network, how to defend one," Dillon says.

The aspect he enjoys most about his job is that it's always changing. "You never know what someone is going to ask you about, whether it's going to be a day full of kind of standard questions like, 'My printer is not printing' ... or whether it's going to be a huge issue that is going to take you four hours to figure out like a puzzle."

As far as what the future holds, Dillon knows one thing for sure. "I definitely am going to stay in this field," he says. His ultimate goal is to become a network administrator. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Computer and information research scientists	1,900	\$61K–\$159K	Doctoral or professional degree
Computer hardware engineers	1,450	\$65K–\$155K	Bachelor's degree
Computer network architects	10,510	\$54K–\$146K	Bachelor's degree
Computer network support specialists	7,020	\$35K–\$100K	Bachelor's degree/ Postsecondary non-degree award
Computer programmers	8,660	\$44K–\$123K	Bachelor's degree
Computer systems analysts	27,380	\$50K–\$125K	Bachelor's degree
Computer user support specialists	19,170	\$28K–\$78K	Bachelor's degree/ Postsecondary non-degree award
Computer, ATM, and office machine repairers	3,070	\$22K–\$58K	Some college
Database administrators	5,760	\$44K–\$121K	Bachelor's degree
Information security analysts	10,330	\$50K–\$139K	Bachelor's degree
Network and computer systems administrators	20,770	\$45K–\$117K	Bachelor's degree
Software developers, applications	37,990	\$56K–\$144K	Bachelor's degree
Software developers, systems software	28,150	\$63K–\$151K	Bachelor's degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics

Dillon Underwood

Technician,
Bedford County Public Schools

Liberty High School/ Bedford Science
and Technology Center,
Bedford County Public Schools

CTE studies: Computer Systems
Technology; three Microsoft
Technology Associate certifications

Additional studies: CompTIA A+ and
Network+ certifications

.....
Institute for Certification of Computing Professionals.....www.iccp.org
Association of Information Technology Professionals.....www.aitp.org
Center for Innovative Technology.....www.cit.org

Law, Public Safety, Corrections & Security

Jobs in this career cluster promote public safety through policing, fire-fighting, security, and the legal system. This cluster offers great careers for people who want to give back to their community. Many of these careers offer exciting jobs and irregular schedules.

▼ Job outlook

Employment of police officers and detectives is expected to grow 5 percent between 2012 and 2022. Job opportunities will vary by locality. Prospective police officers who have a bachelor's degree and law enforcement or military experience will have the best job opportunities.

The number of firefighters is expected to grow 7 percent over the same time period. Firefighting jobs are extremely competitive, as many people are attracted to the challenge and public service the career provides. Applicants who are physically fit and have high test scores and

firefighter or paramedic training will have the best job prospects.

Employment for lawyers is expected to grow 10 percent by 2022. Competition remains strong for these positions, as there are more law student graduates than job openings.

Made popular by TV shows such as *CSI*, forensic science technician jobs are extremely competitive. The number of jobs is expected to grow 6 percent by 2022. Applicants who have bachelor's degrees in a natural science and master's degrees in forensic science will be the most competitive.

Protecting others

by Veronica Garabelli

Even when she faced opposition from others, Kimberly Jarrell always kept her eye on the prize: becoming a police officer. "If it's something you want to do—do it—and do it for yourself—that's a big thing," advises Kim to anyone who dreams of becoming a police officer.

Kim became interested in the career in high school when she took criminal justice her junior and senior years at Pittsylvania Career and Technical Center. "We studied major case laws that, once I got into the police academy, were identical," says Kim about one of the major skills she picked up in the class.

Kim says SkillsUSA's competitions also did a great job of demonstrating what the field entailed. Participants, for example, took part in mock crime scenes and artificial traffic stops. Senior year, however, Kim was not able to participate in SkillsUSA's state competition because she was pregnant. But she didn't let that deter her from pursuing her dream. "I knew I needed to do something to better my life and continue doing what I wanted to do," says Kim.

Three years later, Kim got her wish and started training at the Roanoke Police Academy. It wasn't smooth sailing from there, however. The six-month training program included learning laws, swim training, and a physical exhaustion test.

Since graduating from the Academy in 2012, Kim's been patrolling northwest Roanoke. The aspect she enjoys the most about her job is being able to make a difference, while the hardest part is being away from her 6-year-old son, Triston. Kim's job requires her to work swing shifts where she clocks 60 hours one week and 24 hours the next. Although Kim is now a police officer, she hasn't stopped dreaming. She hopes to one day become a juvenile detective since often, "the only true victims in a lot of situations are children," she says. ▶

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Bailiffs	390	\$19K–\$68K	High school diploma
Court reporters	170	\$26K–\$93K	Postsecondary non-degree award
Detectives and criminal investigators	3,680	\$40K–\$125K	High school diploma
Emergency management directors	440	\$31K–\$112K	Bachelor's degree
Fire inspectors and investigators	190	\$34K–\$88K	High school diploma
Firefighters	8,420	\$22K–\$80K	Postsecondary non-degree award
Forensic science technicians	390	\$33K–\$89K	Bachelor's degree
Lawyers	16,010	\$55K–\$187K+	Doctoral or professional degree
Paralegals and legal assistants	8,870	\$30K–\$77K	Associate's degree
Police and sheriff's patrol officers	18,070	\$33K–\$91K	High school diploma
Police, fire, and ambulance dispatchers	2,920	\$24K–\$58K	High school diploma
Probation officers and corrections specialists	2,750	\$32K–\$84K	Bachelor's degree
Security guards	31,750	\$18K–\$43K	High school diploma

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Kimberly Jarrell

Police Officer,
Roanoke Police Department

Gretna High School/Pittsylvania
Career and Technical Center,
Pittsylvania County Public Schools

CTE studies: Criminal Justice,
SkillsUSA

Additional studies: Roanoke Police
Academy Graduate; Career Studies
Certificate in Heating, Ventilation,
and Air Conditioning, Central
Virginia Community College,
Lynchburg

American Bar Association.....

American Jail Association.....

Federal Bureau of Investigation.....

www.americanbar.org

www.americanjail.org

www.fbi.gov

Manufacturing

This diverse cluster prepares learners for careers in planning, managing, and performing the processing of materials into intermediate or final products. Careers also include related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.

▼ Job outlook

Although employment growth for many manufacturing careers is slower than average, job prospects for manufacturing occupations are excellent for most careers because of the number of retiring employees in this field.

Employment of welders is expected to grow 6 percent between 2012 and 2022. Welders will be needed to help rebuild the country's aging infrastructure. Job opportunities should be good for welders with up-to-date skills.

The need for machinists is expected to grow 9 percent by 2022. Although technology is automating many manufacturing processes, machinists are required to set up, monitor, and maintain these systems. Job prospects are excellent because there are often more jobs available than there are skilled machinists.

The need for industrial engineers is expected to grow 5 percent by 2022, but job opportunities should arise from retirements.

Molding a career

by Veronica Garabelli

Imagine building the Navy's aircraft carriers and submarines that help defend our country. That's what best friends Robb Borowicz and Mason Karafa do as welding apprentices for Newport News Shipbuilding—a job they're extremely proud of. "It doesn't get much more top of the line than what it is right now," says Mason about his job.

Mason and Robb were recruited by Newport News Shipbuilding when they were in high school. They took welding courses at T.H. Badger Technical Center in Accomack County and even were national champions at SkillsUSA's welding competition. SkillsUSA is an organization that works to make sure America has a skilled workforce. Robb was so impressed by T.H. Badger Technical Center's welding program that he transferred from private school his junior year of high school to participate, joining Mason who is a year older than him.

When they were recruited by the Newport News Shipbuilding's Apprentice School, they felt it was too good of an opportunity to pass up. The Apprentice School pays for apprentices to earn while learning their trade—and it's no small sum. Apprentices start out making \$15.95 an hour, and by the end of their apprenticeship, they are making an annual salary of \$58,000. There are also opportunities to pursue an associate's degree through local community colleges. A new program through Old Dominion University allows apprentices to earn a bachelor's degree in mechanical or electrical engineering.

Robb and Mason say their favorite part about being apprentices is learning new welding techniques. The hardest part is juggling work, school, extracurricular activities, and other nuances of adulthood. "It's just a big jump coming out of high school," Mason says, noting that apprentices, for example, don't take summer breaks like many college students. "It was a big eye opener, but it's nothing that, if you have a good work ethic, you can't overcome." ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Industrial engineering technicians	1,080	\$34K–\$78K	Associate's degree
Industrial engineers	4,060	\$52K–\$119K	Bachelor's degree
Industrial machinery mechanics	7,870	\$31K–\$72K	High school diploma
Industrial production managers	2,210	\$55K–\$153K	Bachelor's degree
Maintenance workers, machinery	1,850	\$26K–\$61K	High school diploma
Machinists	7,170	\$24K–\$60K	High school diploma
Materials engineers	420	\$55K–\$135K	Bachelor's degree
Millwrights	560	\$31K–\$74K	High school diploma
Packaging, planning, filling machine operators	8,810	\$18K–\$45K	High school diploma
Production, expediting clerks	8,420	\$26K–\$70K	High school diploma
Sheet metal workers	4,450	\$25K–\$77K	High school diploma
Structural metal fabricators, fitters	1,850	\$25K–\$54K	High school diploma
Team assemblers	12,730	\$18K–\$49K	High school diploma
Tool and die makers	880	\$32K–\$71K	High school diploma

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics

Robb Borowicz and Mason Karafa

Welding Apprentices,
Newport News Shipbuilding,
Newport News

Arcadia High School/ T.H.
Badger Technical Center,
Accomack County Public
Schools

CTE studies: Welding; Technical
Drawing; Engineering Drawing;
SkillsUSA

Additional studies: Pursuing
Associate of Applied Science
degrees in engineering from
Thomas Nelson Community
College; Newport News
Shipbuilding's Apprentice
School

American Apparel and Footwear Association www.wewear.org
Virginia Manufacturers Association..... www.vamanufacturers.com
Precision Metalforming Association Educational Foundation..... www.pmaef.org

Marketing

Marketing is an essential function for companies, nonprofits, and organizations. These careers are best for people who are creative and outgoing. Protecting a group's public image is especially important in today's tech-savvy society, when information can be spread to many people quickly. Job duties in this career cluster can include brand promotion, sales, merchandising, marketing communications, and market research.

▼ Job outlook

Job prospects for merchandising managers, also known as purchasing buyers and agents, is expected to grow overall by 4 percent between 2012 and 2022. However, the outlook for merchandisers varies by industry. Job growth is expected to be better for those in the healthcare and computer systems design industries.

The number of public relations specialists is expected to grow 12 percent, about average growth.

This is a popular career, however, and competition is stiff for jobs at advertising firms, well-known companies, and prestigious public relations firms.

The job outlook for market research analysts is particularly good with an expected 32-percent increase in job growth by 2022. Their research helps companies understand who would buy their product or service, where they should sell it, and how much they should charge for it.

Pursuing a passion for fashion

by Veronica Garabelli

Chanté Pagán credits her high school Fashion Marketing class with piquing her interest in the fashion industry. "It definitely set a little fire in my brain," Chanté says about the course at Massaponax High School taught by Ellen Saunders. "She made the class really interesting, and I knew I could definitely do that every day for the rest of my life." Now a visual merchandiser at H&M in Hawaii, her responsibilities include setting up the store's windows and displays according to the latest trends.

It was in the Fashion Marketing class that Chanté learned what types of jobs the industry offered and basic fashion terminology, such as a *circle skirt* and *empire waist*. Chanté also remembers doing high school projects that reflect processes currently used in the fashion industry, such as putting together an "inspiration board" where she created a board with items that inspired her to start the design process.

Chanté continued to carve out her career path at Virginia Commonwealth University. She graduated with two degrees: one in fashion design and another in fashion merchandising. Although she originally wanted to be a fashion designer, a college internship for clothier Cynthia Steffe in New York City convinced her to pursue merchandising. "Designers make clothes, but they don't sell them. [When] you sell the clothes, you present them in a way that the customers want them, so that really grabbed me," Chanté says about deciding to pursue the second degree in fashion merchandising.

After her internship, Chanté started working as a sales adviser at H&M in Richmond. She expressed interest in becoming a visual merchandiser and started to do some visual work at the store. By the time she graduated from VCU in 2013, H&M offered her a job as a visual merchandiser. In that role, she's helped open H&M stores in New York City's Times Square, Miami, and Hawaii, where she's currently located. In the future, Chanté would like to become a visual merchandiser manager. "My absolute long-term goal is to open my own children's boutique, but I feel like you need to learn the ropes of retail before you can try and open up your own store," she says. Judging from her experience so far, it seems like Chanté is well on her way. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Advertising and promotions managers	320	\$43K–\$187K+	Bachelor's degree
Advertising sales agents	2,810	\$22K–\$106K	High school diploma
Cashiers	91,960	\$16K–\$28K	Less than high school
Market research analysts and marketing specialists	15,130	\$33K–\$114K	Bachelor's degree
Marketing managers	4,100	\$64K–\$187K+	Bachelor's degree
Merchandise displayers and window trimmers	1,860	\$19K–\$45K	High school
Public relations managers	1,430	\$53K–\$184K	Bachelor's degree
Public relations specialists	7,220	\$31K–\$103K	Bachelor's degree
Real estate sales agents	8,440	\$21K–\$98K	High school diploma
Retail salespersons	127,240	\$17K–\$39K	Less than high school
Sales engineers	1,390	\$56K–\$155K	Bachelor's degree
Telemarketers	4,160	\$17K–\$38K	Less than high school

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Chanté Pagán

Visual merchandiser,
H&M,
Honolulu, Hawaii

Massaponax High School,
Spotsylvania County Public
Schools

CTE studies: Fashion
Marketing

Additional studies: Bachelor's
degrees in Fashion Design
and Fashion Merchandising,
Virginia Commonwealth
University

.....
American Association of Advertising Agencies..... www.aaaa.org
National Retail Federation..... www.nrf.com
Sales and Marketing Executives International..... www.smei.org

Science, Technology, Engineering, & Mathematics

This cluster prepares you for careers using science, technology, engineering, and mathematic skills. Workers in this cluster conduct in-depth research to provide solutions to a variety of technical problems within many different fields. A postsecondary degree and relevant work experience are necessary to succeed in this field.

▼ Job outlook

Overall, the need for engineers is expected to grow 9 percent by 2022, but demand varies by specialty. For example, the need for chemical engineers is expected to grow 4 percent, aerospace engineers 7 percent, and mechanical engineers 5 percent. Employment growth for environmental engineers is expected to be 15 percent because of the increase of environmental regulations.

Job prospects also vary for sci-

entists. For example, demand for chemists is expected to grow 6 percent, and material scientists is expected to grow 5 percent. Chemists are employed in a wide range of specialties, including chemical manufacturers, universities, and pharmaceutical companies. The employment of physicists and astronomers is expected to grow 10 percent as their skills are needed at federal laboratories and colleges.

Overhauling Navy ships

by Veronica Garabelli

You could say Darius Johnson's job is to keep a ship running smoothly, but not just any ship.

As a lead test engineer for Newport News Shipbuilding, he tests the equipment on massive U.S. Navy Aircraft Carriers after they've been overhauled (a process that begins when the carriers are 25 years old, so they can keep running for another 25 years). Currently, he's working on the overhaul of the U.S.S. Abraham Lincoln, scheduled for completion in 2016.

"It's more of a hands-on job than an office job, which is pretty much exactly what I was looking for," says Darius, who enjoys interacting with the aircraft carrier's equipment and other workers involved in the overhaul, including U.S. Navy personnel, mechanics, and electricians.

Darius has been interested in engineering for as long as he can remember, but it wasn't until high school that he decided to pursue it as a career. He liked that the field paid well and provided a chance to invent and design a wide array of things—from video game systems to television sets. Initially he leaned toward computer engineering but after talking to his college advisers, he decided to pursue electrical engineering because it offered more career opportunities.

His career fundamentals started well before college. Darius took chemistry and physics during high school, subjects he says are heavily used in engineering. An Advanced Placement Calculus course helped give him basic mathematics skills, and his English classes aided him in the communication aspects of his job. "They gave me the ability to handle all of the writing that's involved even though a lot of people don't think about the writing, but in engineering, there are a lot of reports and speaking and that sort of thing."

Even today, Darius hasn't stopped learning. He's currently pursuing a master's in engineering management from Old Dominion University. The biggest piece of advice Darius has for others eager to get into the field is to use their noggins. "A lot of people get turned away from engineering because they think, 'It's going to be too hard, I have to know everything,' but it's really about being able to think your way through a problem or situation," says Darius, whose ultimate career goal is to start an engineering consulting firm. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Aerospace engineers	3,190	\$65K–\$151K	Bachelor's degree
Agricultural and food science technicians	190	\$23K–\$54K	Associate's degree
Anthropologists and archeologists	220	\$34K–\$93K	Master's degree
Chemical engineers	1,210	\$59K–\$159K	Bachelor's degree
Chemical technicians	1,410	\$27K–\$72K	Associate's degree
Chemists	1,620	\$41K–\$123K	Bachelor's degree
Conservation scientists	440	\$37K–\$91K	Bachelor's degree
Electrical and electronics drafters	770	\$35K–\$91K	Associate's degree
Electrical engineers	6,530	\$57K–\$139K	Bachelor's degree
Environmental scientists	3,300	\$39K–\$113K	Bachelor's degree
Geoscientists	450	\$49–\$187K+	Bachelor's degree
Materials scientists	130	\$47K–\$139K	Bachelor's degree
Mechanical engineers	8,520	\$53K–\$123K	Bachelor's degree
Medical scientists	1,380	\$43K–\$149K	Doctoral or professional degree
Physicists	960	\$55K–\$182K	Doctoral or professional degree

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Darius Johnson

Lead Test Engineer,
Newport News Shipbuilding,
Newport News

Sussex Central High School,
Sussex County Public Schools

CTE studies: Design, Multimedia,
and Web Technologies; Business
Management; Economics and
Personal Finance; JROTC I and II

Additional studies: Bachelor's in
Electrical Engineering, Hampton
University, Hampton; Pursuing
Master's of Engineering in
Engineering Management, Old
Dominion University, Norfolk



American Marine Technology Society.....

State Science and Technology Institute.....

American Society of Civil Engineers.....

www.mtsociety.org

www.ssti.org

www.asce.org

Transportation, Distribution & Logistics

This cluster prepares you for careers in which you plan, manage, and move everything from people to company products through a range of transportation services. Individuals in this field are involved in the logistics of all types of transportation from road to rail and air to water.

▼ Job outlook

The need for logisticians is expected to grow 22 percent by 2022 because of the important role logistics play in the transportation of goods. Companies need logisticians to move their goods efficiently and cost effectively. Job applicants with degrees in business, industrial engineering, process engineering, or supply chain management will be most competitive.

Employment of heavy and tractor-

trailer truck drivers is expected to grow 11 percent from 2012 until 2022. Job opportunities will be plentiful as these jobs can be tough to fill because of time away from home required for many truck drivers.

Jobs for automotive service technicians are expected to grow 9 percent by 2022. Job applicants who have completed postsecondary training will have the best job prospects.

Equipping U.S. troops

by Veronica Garabelli

Davida Stevenson is not in the U.S. Army, but she still plays an important role for U.S. troops. As an inventory management specialist for the U.S. Department of Defense, Davida makes sure the Army has the equipment it needs, from military tanks to the pieces that make up that tank. "I feel a connection to those men and women," she says about people in the Armed Forces. "I know I have to do my job 100 percent of the time in order for them to have the things that they need ... to fight and defend us or train in order for them to come back home to their families safely," she says.

The job entails buying and repairing equipment for the Army and forecasting what gear it needs so an order can be processed quickly. To land the position, Davida went through the Department of the Army Intern Program which trains civilians for logistic management positions with the federal government. Davida likens the 18–24 month program as being in college again (participants, by the way, are required to have a college degree with a GPA of at least 2.95 or have graduated in the top 30 percent of their undergraduate class). "You have a curriculum that's all about federal government service and supply or maintenance of the U.S. Army," she says, noting that after training, participants are placed at a permanent duty station that could be anywhere around the world.

Davida started laying the foundation for her current career in high school, when she participated in the Army Junior Reserve Officer Training Corps program. According to its official Web site, the program teaches students character education, student achievement, wellness, leadership, and diversity. "It was a good introduction. When you're in middle school and high school, you know of the Army, but you don't know what it entails," says Davida about JROTC.

Davida's ultimate dream is to be a project manager. In January, she expects to graduate from Walsh College in Troy, Michigan, with a Master of Science in Management, with a concentration on project management. "What I'm doing now is a great foundation, especially for individuals who are just coming into the federal workforce with the Army because it teaches you how to support the soldier, but now I feel as if I'm ready to lead my own project," she says. ►

What they make...

OCCUPATION	Employed in VA	Typical salary ¹	Typical entry-level education
Aircraft mechanics and service technicians	2,460	\$35K–\$85K	Postsecondary non-degree award
Airline pilots, co-pilots, and flight engineers	2,920	\$65K–\$187K+	Bachelor's degree
Automotive body and related repairers	4,180	\$24K–\$67K	High school diploma
Automotive service technicians and mechanics	19,330	\$21K–\$61K	High school diploma
Bus drivers, school	18,390	\$18K–\$44K	High school diploma
Bus drivers, transit and intercity	3,800	\$21K–\$61K	High school diploma
Dispatchers, except emergency	3,920	\$22K–\$60K	High school diploma
Driver/sales workers	11,920	\$17K–\$47K	High school diploma
Industrial truck and tractor operators	11,980	\$21K–\$47K	High school diploma
Logisticians	6,170	\$46K–\$113K	Bachelor's degree
Mobile heavy equipment mechanics	3,040	\$31K–\$67K	High school diploma
Shipping, receiving, and traffic clerks	13,070	\$19K–\$46K	High school diploma
Transportation and distribution managers	2,240	\$49K–\$143K	High school diploma
Truck drivers, heavy and tractor-trailer	36,450	\$25K–\$60K	Postsecondary non-degree award
Truck drivers, light or delivery services	17,740	\$18K–\$61K	High school diploma

¹ 10th to 90th percentile

Source: U.S. Bureau of Labor Statistics



Davida W. Stevenson

Inventory Management Specialist,
U.S. Department of Defense,
Warren, Michigan

Sussex Central High School,
Sussex County Public Schools

CTE studies: Army Junior Reserve Officer Training Corps (JROTC)

Additional studies:
Bachelor's in Political Science, Virginia State University, Petersburg;
Pursuing Master of Science in Management, Walsh College, Troy, Michigan

American Trucking Associations

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www.truckline.com

www.vada.com

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FACTS

- **\$4,023:** The average annual income of a 15-to-17-year-old. (Source: Packaged Facts)
- **86 percent:** Percentage of teens who say they would rather learn about money management in class before making mistakes in the real world. (Source: Charles Schwab 2011 Teen & Money Survey Findings)

Blitzed with homework, team sports, and club activities, your savings account may be the furthest thing from your mind. But learning to become financially savvy now is key to a successful future. Many teens spend hours learning history and mathematics lessons but graduate without knowing the difference between checking and savings accounts, or how your credit history could affect your ability to buy a car or purchase a house.

Luckily, as a student in Virginia, you should be prepared to handle your own money.

Virginia public school students are required to earn a credit in Economics and Personal Finance to receive a Standard Diploma or Advanced Studies Diploma. This course requirement will ensure that you know the answer to many real-life questions before you graduate from high school. The course covers everything from paying bills to understanding how basic investments work. The course also covers a wider macroeconomic view of

the U.S. and global economy.

The Economics and Personal Finance course is also available through Virtual Virginia. For more information on the online course, see your school counselor, and visit the Virtual Virginia Web site at <http://www.virtualvirginia.org>.

It's important that develop good financial habits now so that you're prepared to support yourself in the future. The most important thing to remember is that you must live within your means. This can be difficult when you're bombarded by thousands of advertisements every day. Remember that you don't have to buy the latest cell phone just because your friend has it. Learn to prioritize. Pay your bills, and save some money before you consider your entertainment costs.

RESOURCES: There are a lot of resources available to help you learn how to manage your money. Here are some Web sites that can help.

www.teensguidetomoney.com: This site introduces teens to basic — and not so basic — money management skills. The site is broken down into four major categories: earning, saving, investing, and spending.

www.themint.org: TheMint is designed for parents and educators but also includes a section on tips for teens.

www.moneytrail.net: If your parents still give you an allowance, they pay you for certain household chores, or let you borrow money, this is a great site. This virtual money management system helps parents and their teens keep track of allowances given and loan repayments.

www.mint.com: Mint pulls all of your financial accounts into one place, allowing you to set a budget and track your financial goals. ■

Money tips

Your spending now probably has little to do with rent, utility bills, healthcare, or retirement portfolios. However, these will become a regular part of your budget when you become an adult. Starting good financial habits now will benefit you in the future. Follow these tips to start a habit of good financial planning.

CREATE A BUDGET.

Write down every single expense you have for one month. Include everything: clothes, transportation, movie tickets, snacks you bought from the school vending machines, etc.

Compare your monthly expenses with your monthly income, such as allowances or money from any odd

jobs. If your expenses are more than your income, you need to reconsider your expenditure priorities.

LEARN TO SAVE.

There are probably some big-ticket items you'd like to buy, such as a car or new wardrobe. Determine the cost of things you want and set aside money each month to reach your goal.

Investigate different options for where to put your money. Savings accounts typically earn some interest on your money, while checking accounts do not. When you graduate, you'll need to put away money for emergencies. Experts recommend saving enough to cover three to nine months of your salary.

PAY ATTENTION TO CREDIT.

Financial planning requires a good credit history, which is important for securing loans. For students, a credit card can be a good option to begin this history, but you must be responsible. Credit cards are not free money!

Research credit cards to find the one with the lowest rates and fees and that offer the best rewards. CreditCards.com is a good source.

Pay your bills in full each month. Late payments will lower your credit rating. If you don't pay the full amount each month, interest will kick in on your purchases. Before you know it, the cost of that \$20 sweater could double! ■

Paying for education

Higher education is expensive, and the cost of college tuition continues to soar. The publisher of Edvisors, a group of Web sites about planning for college, found that the average student graduating from college in 2014 carried an average of \$33,000 in college-related debt. Whether you or your parents

are planning to be responsible for college tuition, you will need to be proactive in your approach. Once the college application process has begun, note each college's financial aid deadlines, and direct any questions to the school's financial adviser.



Important financial aid Web sites

U.S. Department of Education
www.ed.gov/finaid

State Council of Higher Education for Virginia
www.schev.edu/students/Payforcollege.asp

The SmartStudent Guide to Financial Aid
www.FinAid.org

SCHOLARSHIPS

Money that typically is awarded based on a specific qualification, such as academic or athletic talent or financial need.

Important Web sites:
www.fastweb.com
www.scholarships.com
www.collegeview.com

GRANTS AND LOANS

Government grants and loans are often provided based on financial need. The first step in any financial aid search is to fill out the Free Application for Federal Student Aid (FAFSA), available at www.fafsa.ed.gov.

Grants

Federal Pell Grants:

(www2.ed.gov/programs/fpg/): Based on financial need

Federal work-study programs:

(www2.ed.gov/programs/fws/): Part-time employment to pay for education

Virginia Tuition Assistance Grants:

(www.schev.edu/students/factsheet/VTAG.asp) Up to \$3,100 per year for Virginia residents attending a private university or college in Virginia

Loans (studentloans.gov)

Direct Stafford Loans: Unsubsidized and subsidized student loans with a fixed interest rate; most common form of student financial aid

Direct Perkins Loan: Low-interest loan to students who have exceptional financial need

Direct PLUS Loan: For parents of college students or for graduate and professional students

Private loans: Necessary if additional money is needed; typically have higher interest rates

MILITARY STUDENT AID

The military provides a number of educational opportunities and can present a good way to pay for higher education. For more information, visit www.military.com/education.

COLLEGE SAVINGS PLANS

The **Virginia College Savings Plan** offers four ways to save for college with ideal tax incentives. For more information, visit www.virginia529.com.

The Virginia Prepaid Education Program (VPEP): Locks in future college costs at Virginia's public colleges and universities

Virginia Education Savings Trust (VEST): A tax-advantaged plan where parents choose from a variety of investment funds

CollegeAmerica Program: Tax-free savings plan with choice of 22 different investment funds

CollegeWealth Program: Provides tax advantages while allowing families to save money through deposit accounts or certificates of deposits at Virginia's banks

Social media

Be sure your Web presence helps—not hurts—your career potential



Facebook

Keeping a professional-looking profile can be difficult on Facebook. Luckily, Facebook offers easily cus-

tomizable privacy options—if *you know how to use them*. Facebook also changes privacy settings every now and then, so stay vigilant and

keep your settings up-to-date.

Many young people post frequently about subject matter they wouldn't want an employer to know about. Keep your page free of anything that suggests illegal activity, foul language, and trash talking. Ask friends to take down inappropriate photos. A good rule of thumb is to ask yourself whether you would want your grandmother to see what's posted.

Once all of the above has been figured out, Facebook can be a great tool. For example, if you start a club at school, give it a healthy online presence with an informative and active Facebook page. Use the site to publicize your club's events. Your effort could help you stand out in college applications and job interviews.

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Twitter

The same rules for Facebook apply to Twitter, but your online presence here can be quite a bit easier to maintain. If you're worried, simply set your profile to private, and you can easily control who sees your tweets.

Tweet about such things as interesting facts and articles you've read. Don't post anything inappropriate or distasteful, and try not to complain—especially about something work related. Ask yourself, would I be comfortable with my boss reading this?

If you consistently post interesting and entertaining tweets, you can successfully cultivate a strong online following. These connections could come in handy when searching for jobs.

Twitter can also be a good tool to follow industries or companies you might be interested in working for in the future. Say, for example, you are interested in the health field. If you follow organizations' twitter handles, such as the American Association of Pediatrics, or the American Medical Association, you can stay abreast of new research.

LinkedIn

This site is focused solely on job-related connections. You should certainly take advantage of how easy LinkedIn makes it to connect with people who could help you professionally. However, be careful when reaching out to people you don't know very well. Always include a personal message, such as "Hi Mary, It was great meeting you last night. I really enjoyed our conversation. Let me know how that project goes!"

Take advantage of LinkedIn's work history feature, and provide good descriptions of your work and education background. Connect with organizations you have worked with in the past and would like to work with in the future.

Instagram

This photo-sharing site gives users the opportunity to share their lives with photos. Make sure the

photos you post don't put you in a bad light. If your friends take photos of you that you wouldn't want to share with a future boss, ask them not to upload them on their social media sites.

Other social media: general rules to follow

There are so many social media sites, it can be difficult to keep up! General rules from above still apply. Keep your online presence presentable and consider whether these

sites could actually help you land a job one day. Have discussions with your friends about photos or comments that involve you on their sites. You never know who might be a friend of a friend!

Although you should be careful with social media, it's wise to stay on top of new media and technology. Being knowledgeable and active in newer types of social media could make you stand out in an interview and shows you're tech savvy and current. ■



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Ace your interview

Preparation is key for job interviews

The process

If a prospective employer calls you in for an interview, it's because he or she is impressed with the skills, experience, and education on your résumé. During an interview, it's time to let your personality shine, showing a potential employer that you would be a dedicated employee who is easy to work with. The best applicants will be well prepared for the interview.

Research the company.

Talk to people who know the business or industry, and spend time exploring the company's Web site. Write down its mission statement to find out what's most important to the company.

Practice potential interview questions.

Prepare to answer standard interview questions: What interests you about this position? What accomplishments are you most proud of? What are your strengths and weaknesses? Be prepared to answer off-the-wall questions, too. An interviewer might be testing to see how well you can think on your feet.

Prepare a list of questions.

If you have a list of questions about the job and company, you will appear more interested in the position. Take notes to further show your interest.

Dress for success.

It's better to be overdressed than underdressed for an interview. You need to look professional, especially if you are interested in an office job.

Thank-you notes.

Always send interviewers thank-you notes for taking the time to meet with you. Include the best way to reach you if your interviewers have any questions.

Cover Letter

Always include a cover letter when sending a résumé to an employer. While your résumé is a nuts-and-bolts outline of your education and work experience, cover letters give you the opportunity to explain to a prospective employer why you want the position and how your skills match the specific position to which you are applying.

Be as specific as possible. The cover letter will need to include the reasons you are interested in both the job and the organization.

Don't forget to proofread! An employer may question your skills if you call yourself detail-oriented but your cover letter includes typos.

Here's how you should outline your cover letter:

- On separate lines, list your name, mailing address, phone number, and e-mail address.
- Date
- On separate lines, list the employer's name, title (make this as specific as possible if you are able to find the name of the person responsible for hiring), and mailing address.
- First paragraph: State the position for which you are applying and where you found the job posting. If someone referred you to the job, make sure you mention his or her name.
- Second paragraph: Use this to explain how your skills and expertise match the needs of the employer. Use this to enhance information provided on your résumé.
- Final paragraph: Thank the potential employer for his or her consideration, and include how you might follow up.
- Closing (such as Sincerely, Respectfully)
- Sign your name if sending in a hard copy of the letter.

Jennifer Brown
1234 56th Street, Richmond, VA 23456
804-555-5555 jane.doe@hotmail.com
September 25, 2014

Mr. John A. Smith
Director of Human Resources
ACME Designs
1234 Main Street, Richmond, VA 23223

Dear Mr. Smith:

I'm writing to express my interest in the Web Content Manager position listed on CareerBuilder.com.

I have experience building large, consumer focused, health-based content sites. While much of my experience has been in the business world, I understand the social value of the non-profit sector, and my business experience will be an asset to your organization.

My responsibilities included the development and management of the site's editorial voice and style, the editorial calendar, and the daily content programming and production of the Web site. I worked closely with health care professionals and medical editors to help them provide the best possible information to a consumer audience of patients.

Thank you kindly for your consideration. I look forward to speaking with you about this employment opportunity.

Respectfully,
Signature
Jennifer Brown

Anatomy of a résumé

Objective: An objective statement should be tailored specifically to the job for which you are applying. The statement is optional but allows you to show employers that you know what you want and that you are familiar with the available position.

Education: List the name of your high school and dates attended. If you are taking CTE courses, be sure to include those. You will want to include any certifications you have earned, as well as any applicable professional memberships. If you are working toward a certification, list that as well.

Work experience: List your job history in reverse chronological order, with your most current or recent job first. Include the dates and list responsibilities of the job.

Volunteer experience and extracurricular activities: For young people with a short job history, volunteer experiences and extracurricular activities are a great way to show potential employers that you are responsible, dedicated, and capable of managing your time effectively.

<div>1234 56th Street, Richmond, VA 23456 804-555-5555 jane.doe@hotmail.com</div> <div>Jane M. Doe</div>	
OBJECTIVE	To obtain a sales position with career growth potential at a major distribution center
EDUCATION	September 2010—Present, Central High School, Richmond, Virginia Advanced Studies Diploma Marketing Career and Technical Education
CERTIFICATIONS AND SKILLS	Microsoft Office Specialist—Word and Excel, proficient with e-mail applications and Internet-based search engines
PROFESSIONAL MEMBERSHIPS	Vice President, Central High School Chapter of the Virginia Future Business Leaders of America May 2014 — Present
WORK EXPERIENCE	Paramount's Kings Dominion, Doswell, Virginia May 2014 — August 2014, deep water lifeguard <ul style="list-style-type: none">Responsible for overseeing 80 x 160-foot pool and approximately 40 swimmers per dayPromoted to assistant manager of the wave pool Jane Doe's Dog Walking Service, Richmond, Virginia April 2013—October 2013, dog walker <ul style="list-style-type: none">Walked and cared for dogs for 15 families in the Richmond areaHandled monthly collection of fees and care of dogs
VOLUNTEER EXPERIENCE	Richmond Habitat for Humanity, Richmond, Virginia March 2014, high school liaison <ul style="list-style-type: none">Organized a two-day building blitz by students from Central High SchoolRaised more than \$2,000 for supplies
EXTRACURRICULAR ACTIVITIES	Central High School cross country team August 2011—Present, team captain
REFERENCES	Available upon request

References: Let employers know that you can provide references who will confirm your abilities. References cannot be family or friends, so think about teachers, coaches, or previous employers. Be sure to get permission from your references before sending them to any potential employer.

A woman with short brown hair and sunglasses is sitting on a dark wooden bench. She is wearing a white short-sleeved top with a geometric pattern and a black skirt. She is looking to her right. In the background, there is a boutique window with a patterned glass and a sign that says 'TURNSTYLE'.

Lifestyle education.

"I opened a DJ lifestyle boutique as a freshman using a business plan I put together in retail management class. In the mornings, I studied fashion merchandising. In the afternoon, I was at my store on Broad Street, tweaking my spring lineup. What started as a class project is my real-life project."

— Joanna Oremland, B.A. 2007
Fashion merchandising



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