



Navigating Career Planning

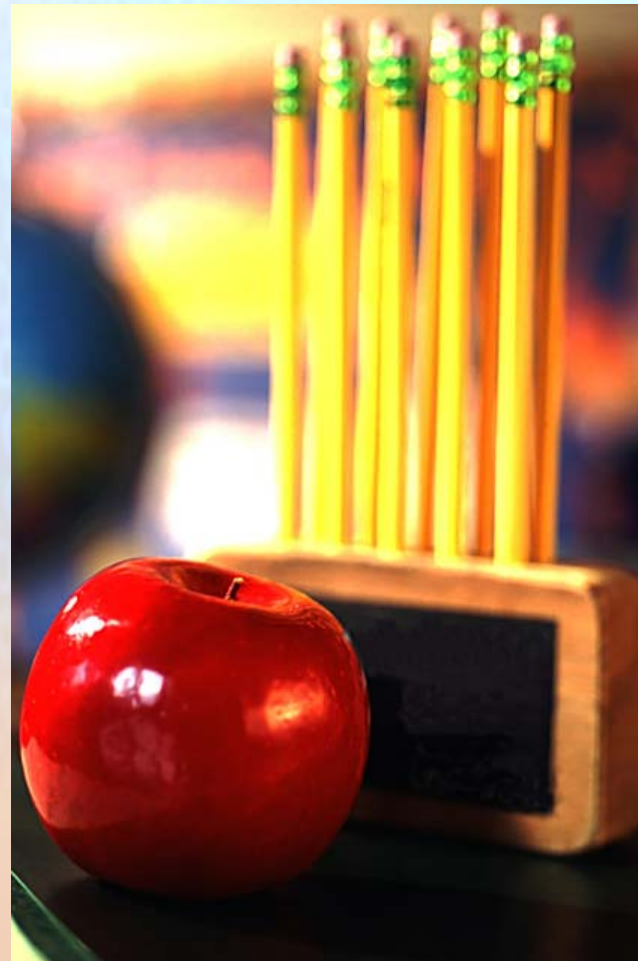
Virginia Career Education Foundation
2011-2012

Want ad for tomorrow's workforce:

Help Wanted: Creative individuals with strong problem-solving skills, excellent computer skills, the flexibility to adapt to rapidly changing markets, the ability to work in a multi-disciplinary environment, and the skills needed to effectively collaborate across cultures in a global marketplace.

Hot Career Fields

Health Care



Education

Hot Career Fields



Technology

Finance



Hot Career Fields

(Safe from offshoring!)



Construction

Services



Fastest Growing Occupations 2008 – 2018

1. Network Systems and Data Communications Analysts
Salary Range: \$42,800 — \$116,120
2. Physician Assistants
Salary Range: \$55,880 — \$115,080
3. Medical Assistants
Salary Range: \$20,750 — \$39,970
4. Medical Records & Health Information Technicians
Salary Range: \$20,850 — \$51,510
5. Computer Application Software Engineers
Salary Range: \$54,840 — \$132,080
6. Physical Therapist Aides
Salary Range: \$17,330 — \$34,100
7. Fitness Trainers and Aerobics Instructors
Salary Range: \$16,120 — \$60,760+
8. Database Administrators
Salary Range: \$41,000 — \$104,070+
9. Veterinary Technologists and Technicians
Salary Range: \$19,770 — \$41,490+
10. Dental Hygienists
Salary Range: \$44,000 — \$91,000+

Source: CareerExplorer.net

Ahead-of-the-Curve Careers

- Asian-business-development specialist
- Behavioral geneticist
- Computational biologist
- Data miner
- Emergency planning manager
- Green-collar consultant
- Health informatics specialist
- Immigration specialist
- Offshoring manager (farshored, nearshored, homeshored)
- Patient advocate
- Simulation developer
- Wellness coach

**Old paradigm was that
college was the path to....**

**New
Considerations?**

**The type of degree
matters!**



Top 10 degrees in demand (bachelor's degree level)

Accounting	\$46,292
Mechanical Engineering	\$54,057
Electrical Engineering	\$55,333
Computer Science	\$53,051
Business Administration	\$57,407
Economics/Finance	\$47,782
Information Sciences	\$49,966
Marketing/Management	\$39,269
Computer Engineering	\$55,920
Management Info Sys	\$47,407

Source: CNBC.com, 2008

from NACE Job Outlook 2008.

Salary information from NACE class of 2007 data.

Best Undergrad College Degrees By Salary

Chemical Engineering	\$63,200
Computer Engineering	\$61,400
Electrical Engineering	\$60,900
Aerospace Engineering	\$57,700
Economics	\$50,100
Physics	\$50,300
Computer Science	\$55,900
Industrial Engineering	\$57,700
Mechanical Engineering	\$57,900
Math	\$45,400

Source: PayScale.com 2008

High Paying Jobs in US

Virginia Employment Commission: Spring 2005

Physicians, Surgeons	\$145k
Aircraft Pilots	\$133k
Chief Executives	\$116k
Electrical Engineers	\$112k
Lawyers, Judges	\$99k
Dentists	\$90k
Pharmacists	\$85k
Computer Systems Managers	\$83k

High Paying Jobs in US That Require **No** College Degree

CareerBuilder.com, 2008

1. Air traffic controller	\$102,030
2. Funeral director	\$79,517
3. Operations manager	\$77,839
4. Industrial production manager	\$73,000
5. Transportation manager	\$72,662
6. Storage & distribution manager	\$69,898
7. Computer tech. support special.	\$67,689
8. Gaming manager	\$64,880
9. First-line supervisor/manager of police & detective	\$64,430
10. Nuclear power reactor operator	\$64,090

High Paying Jobs in US That Require **2-Yr.** College Degree

Virginia Employment Commission: Spring 2005

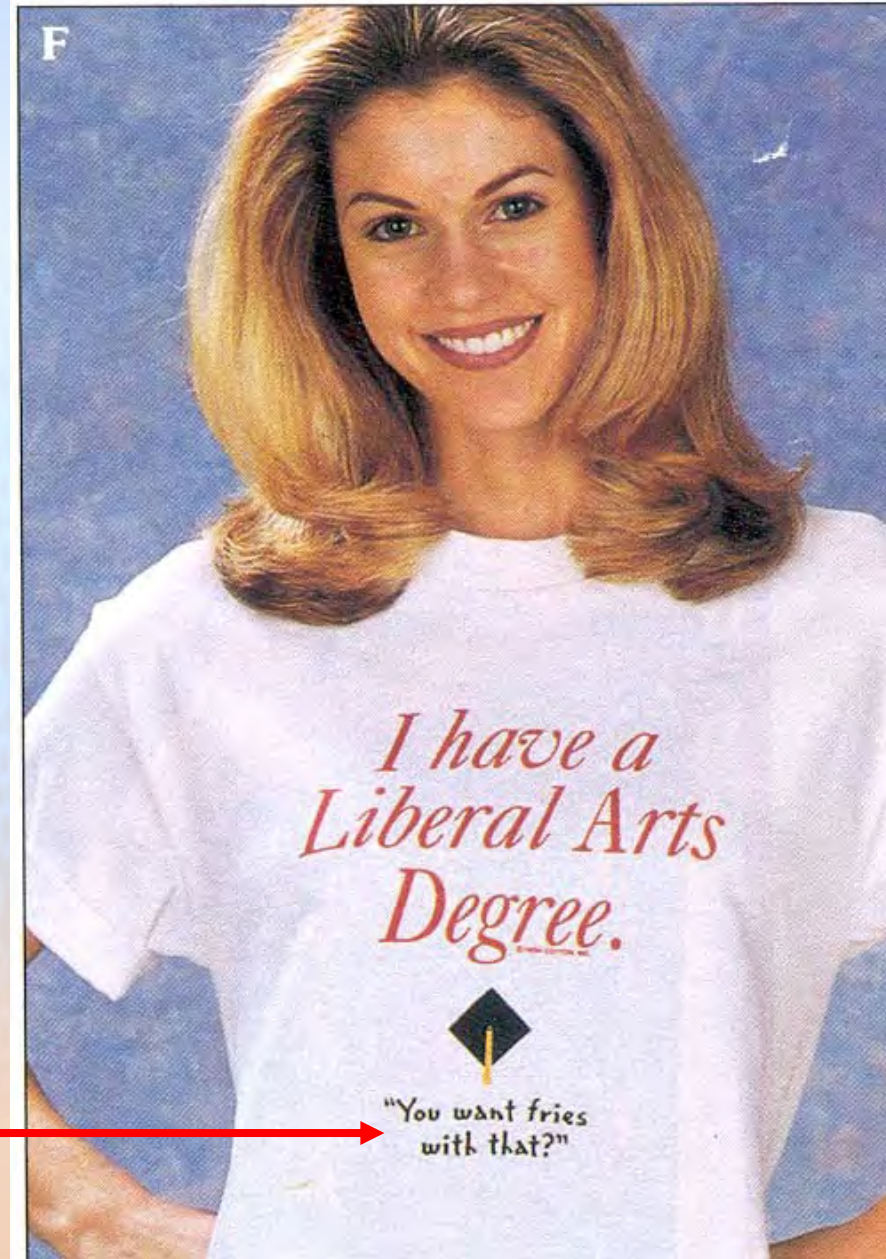
Health Care Practitioners	\$66k
Business Analysts	\$58k
Mechanical Engineers	\$57k
General/Operations Managers	\$54k
Computer/IT Systems Managers	\$50k

**** Average wages in VA in 2005: \$42,880**
(Source: Bureau of Labor Statistics 2007)

This helps explain why....

**30% to 40% of
Community
College
students
already have a
4-Year College
Degree.**

*“You want fries
with that?”*



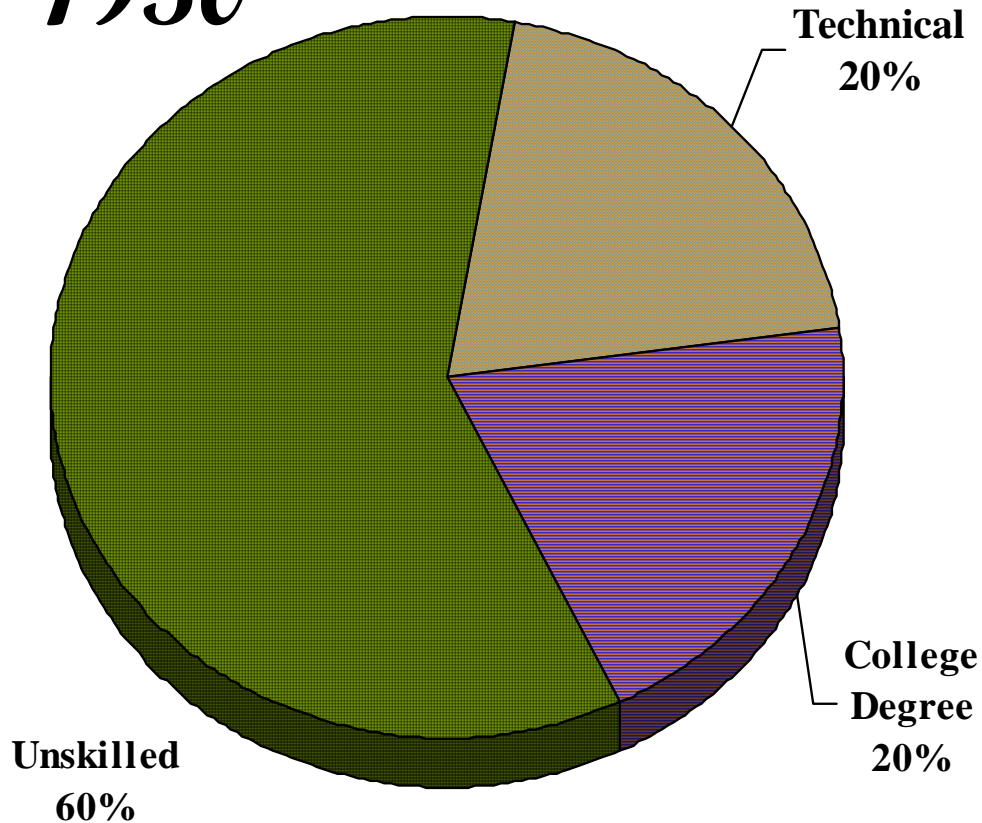
Just look at today's world!



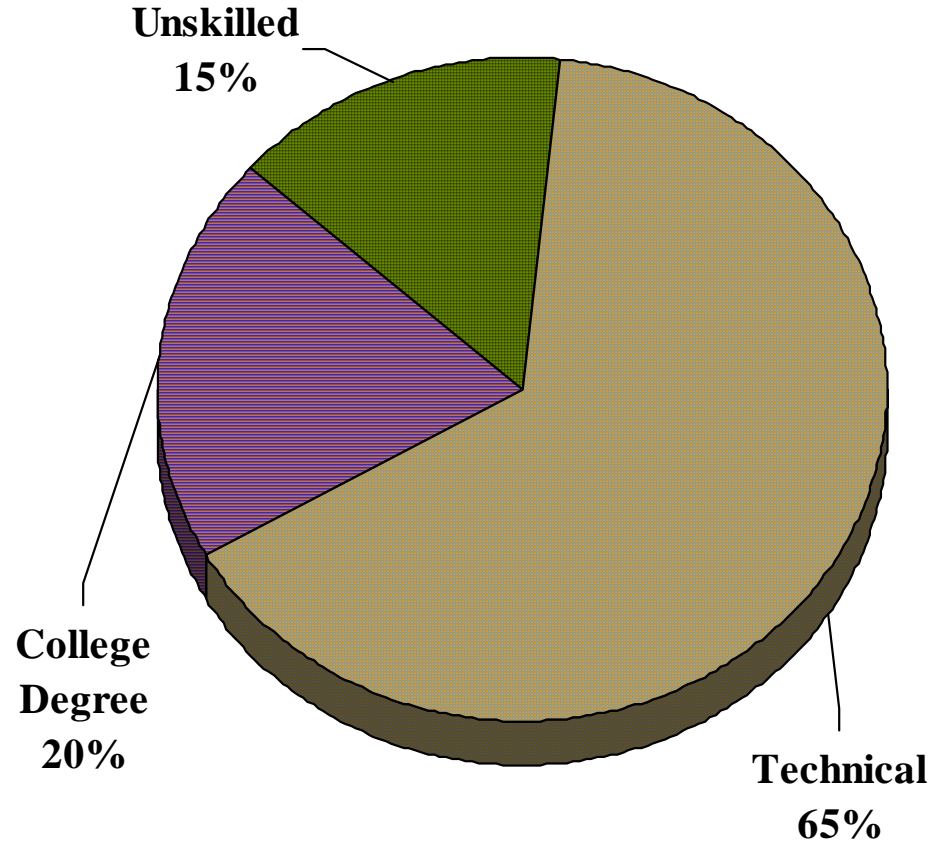
- **Jobs have changed**
- **Different options exist**
- **New training is required**
- **Traditional timelines have changed**

Changes in the Skill Level Required for Jobs in the U.S.

1950



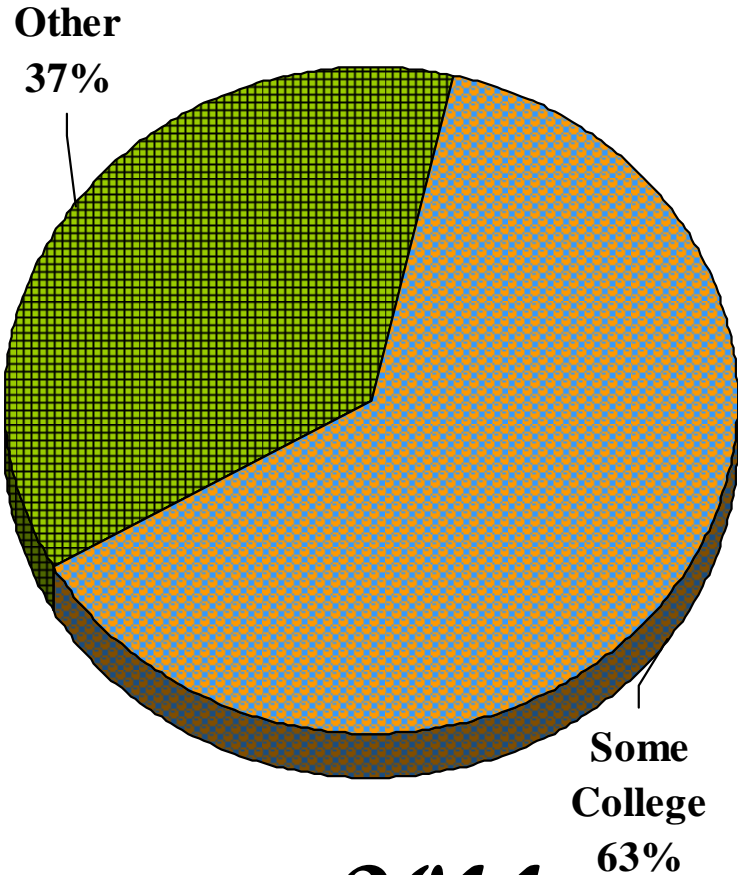
Unskilled
15%



2000

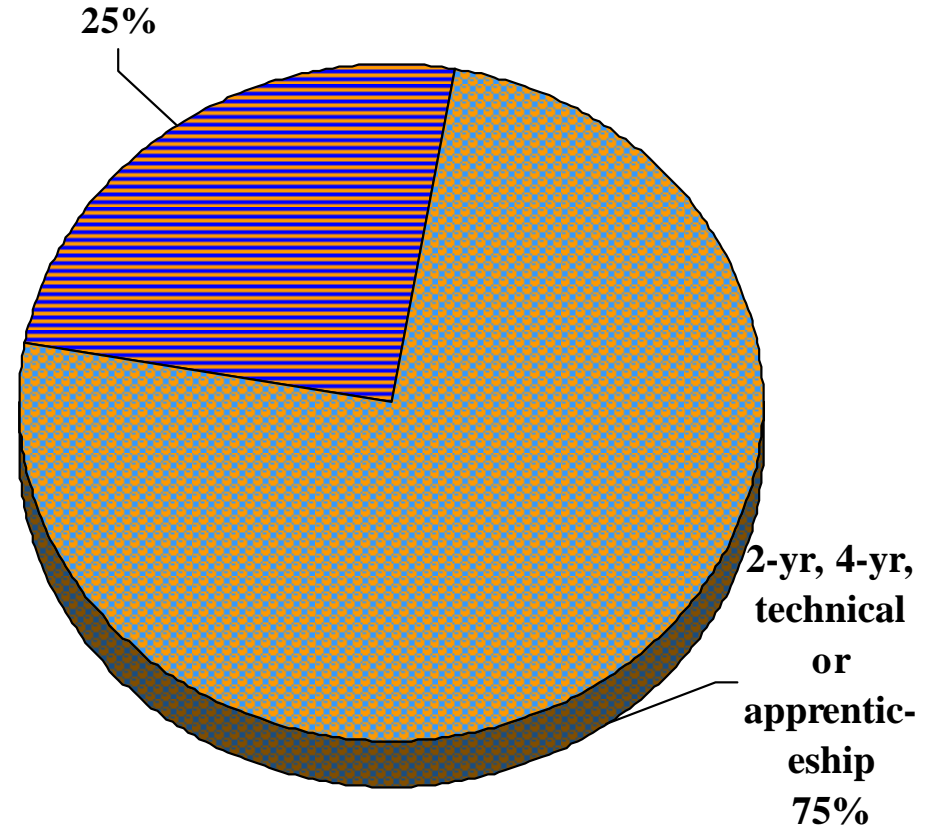
Source: Virginia Employment Commission, U.S. Bureau of Labor Statistics

Projections for New Job Growth



2014

University Continuing Education
Association, 2009



2020

Techniques, Sept. 2009

- **What are the educational requirements of the high-growth jobs?**
- Professional occupations are expected to add some six million jobs between 2004 and 2014, with 75 percent of those in three fields: allied health, education, and computer and mathematical science. An additional 5.3 million new jobs projected **Of the nearly 19 million new jobs projected from 2004-2014, nearly 7 million, or 36 percent, will require a bachelor's degree or higher; only 24 percent of jobs in 2004 required a bachelor's degree.** From 2004-2014 will require at least some college education. **All told, 11 million new jobs from 2004-2014 will require at least some college education, representing 63 percent of all new jobs in that time period.**
- **How many people in the U.S. workforce (ages 25-64 years) have a bachelor's degree or higher?**
- In 2006, 33 percent of the workforce had at least a bachelor's degree. However, this number will likely decrease as the baby boom generation enters its retirement years and is replaced by a more diverse workforce, with a projected lower level of educational attainment, absent any interventions. By 2025, nearly a quarter of Americans will be age 60 or older, up from 17 percent in 2005.

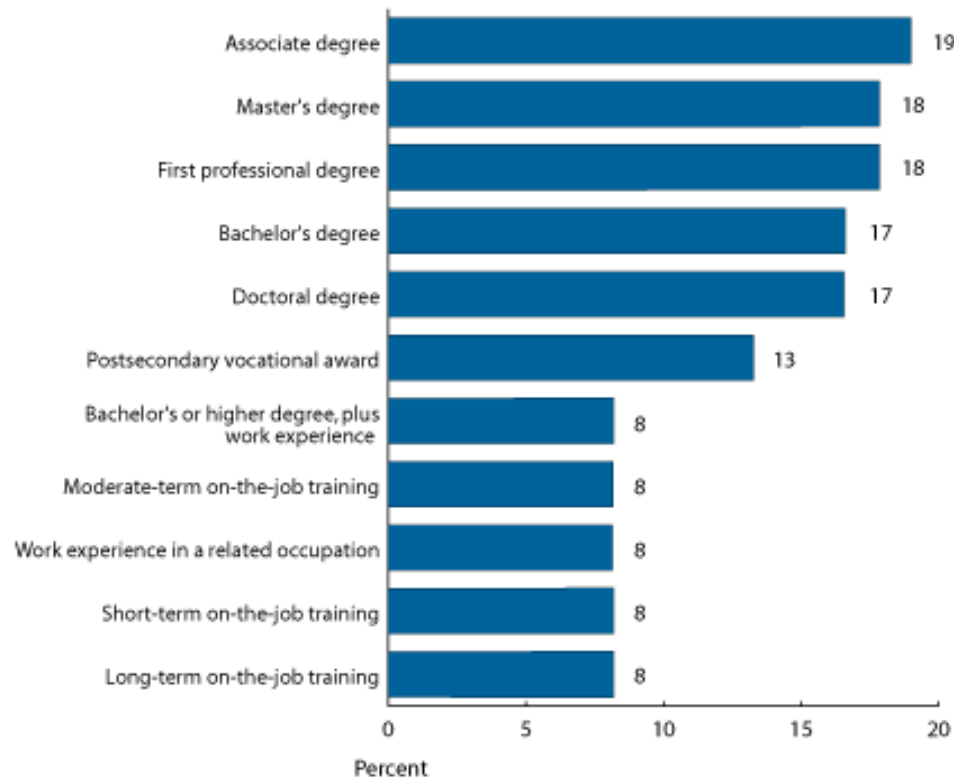
University Continuing Education Association, 2009

Employment change by education and training category

[Education and training categories](#) for each occupation are determined by the most significant source of education and training obtained by workers in that occupation. Growth for each education and training category is calculated by adding the growth across all occupations in the category. As a result, there is some variation in the growth rates between categories.

In general, occupations in a category with some postsecondary education are expected to experience higher rates of growth than those in an on-the-job training category. Occupations in the associate degree category are projected to grow the fastest, at about 19 percent. In addition, occupations in the master's and first professional degree categories are anticipated to grow by about 18 percent each, and occupations in the bachelor's and doctoral degree categories are expected to grow by about 17 percent each. However, occupations in the on-the-job training categories are expected to grow by 8 percent each ([Chart 7](#)).

Chart 7. Percent change in employment, by education or training category, 2008–18 (projected)



Percentage of jobs that require a two-year or four-year degree and higher, or special postsecondary occupation certificates or apprenticeships:



Techniques, September 2009

Even milestones of life are changing... **New Age for Adulthood?**



30

Why?

This is the age that adolescents:

- 1. Finish education**
- 2. Become financially independent**
- 3. Move away from home!**

The Washington Times

(65% of college graduates plan to return home after graduation!) Yahoo Survey

Why does it take so long?

- 1. It takes longer to graduate from college**
- 2. Job market for new jobs has been weak**
- 3. Housing is expensive!**

The image features a laptop in the lower-left corner, with its screen and keyboard visible. The background is a gradient of blue and orange, with several curved, glowing lines. Overlaid on this background is a pattern of binary code (0s and 1s) in a light blue color. The text 'CAREER CLUSTERS' is centered in the upper half of the image in a bold, dark blue font.

CAREER CLUSTERS

Career Clusters

"A Career Cluster is a grouping of occupations and broad industries based on commonalities. The sixteen career clusters provide an organizing tool for schools, small learning communities, academies and magnet schools."

Become familiar with the titles and organization of the 16 career clusters

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CAREER PATHWAYS

Career Pathways

- "As defined in the state's first strategic plan for career pathways, **Bridging Business and Education for the 21st Century Workforce**, career pathways are connected education and training programs and support services that enable individuals to secure employment with a specific occupational sector and to advance over time to successively higher levels of education or employment in that sector."

Workforce Development Strategic Plan 2007



Governor Kaine's
Workforce Development Strategic Plan

Making Connections:
Virginia's New Direction for Workforce Development



Goal Three: Respond to long-range talent and skill forecasts as well as emergent near-term market and business needs.

Strategies	Action Items	Responsible Parties
<p>Increase priority and visibility of skills development, career and technical education and postsecondary education opportunities for adults</p>	<ol style="list-style-type: none"> 1. Provide alternative approaches to organizing postsecondary skill development, remediation, and workforce training programs for adults throughout the state to increase availability and access to these programs by 2008. 2. Create skill development opportunities by 2008 for at-risk population sectors that face barriers to employment. 3. Develop a statewide career pathways and workforce communication plan by 2007. 4. Increase the use of the Career Readiness Certificate (CRC) and necessary resources to upgrade adult skill deficiencies by 10 percent annually beginning in 2007. 	<p>SCHEV (VA Council on Continuing and Professional Studies); SOE; VCCS</p> <p>DJJ; DOC; DRS; DSS; SAW; SHHR; SPS; VCCS; VWC</p> <p>Career Education Foundation; DOE; DOLI; SAW; SOE; VCCS; VWC</p> <p>Community-Based Organizations; DCE; DJJ; DSS; Regional Jails; SAW; VCCS; VWC</p>
<p>Ensure attainment of labor market skills</p>	<ol style="list-style-type: none"> 1. Increase the proportion of 18-24 year-olds enrolled in postsecondary education to 39 percent by 2010. 2. Develop an electronic database to determine progression from P-16 education system (public and private) to employment by 2009. 3. Require every public school student by 2010 to have an individualized high school plan to ensure course selection decisions are aligned with students' transition and career goals after high school. 4. Increase by 6 percent annually, by 2008, those entering registered apprenticeship programs to meet anticipated skill shortages, as indicated in the VWC's Workforce Development Blueprint for 2012. 	<p>DOE; SCHEV; SOE; VCCS</p> <p>SAW; SOE; VCCS; VWC</p> <p>DOE; SOE; VCCS</p> <p>DOE; DOLI; SC&T; SOE; VCCS; VWC</p>

The image features a laptop in the lower-left corner, with its keyboard and a CD-ROM drive visible. The background is a gradient of blue and orange, overlaid with glowing binary code (0s and 1s) and several large, curved, glowing blue lines that sweep across the frame from the top left towards the right. The overall aesthetic is futuristic and digital.

ACADEMIC AND CAREER PLANS

Gov. Kaine's 2008 proposal for Standards Of Accreditation change:

8 VAC 20-131-140. College and career
preparation programs and opportunities
for postsecondary credit

Career Plans- moved out to 2012-2013

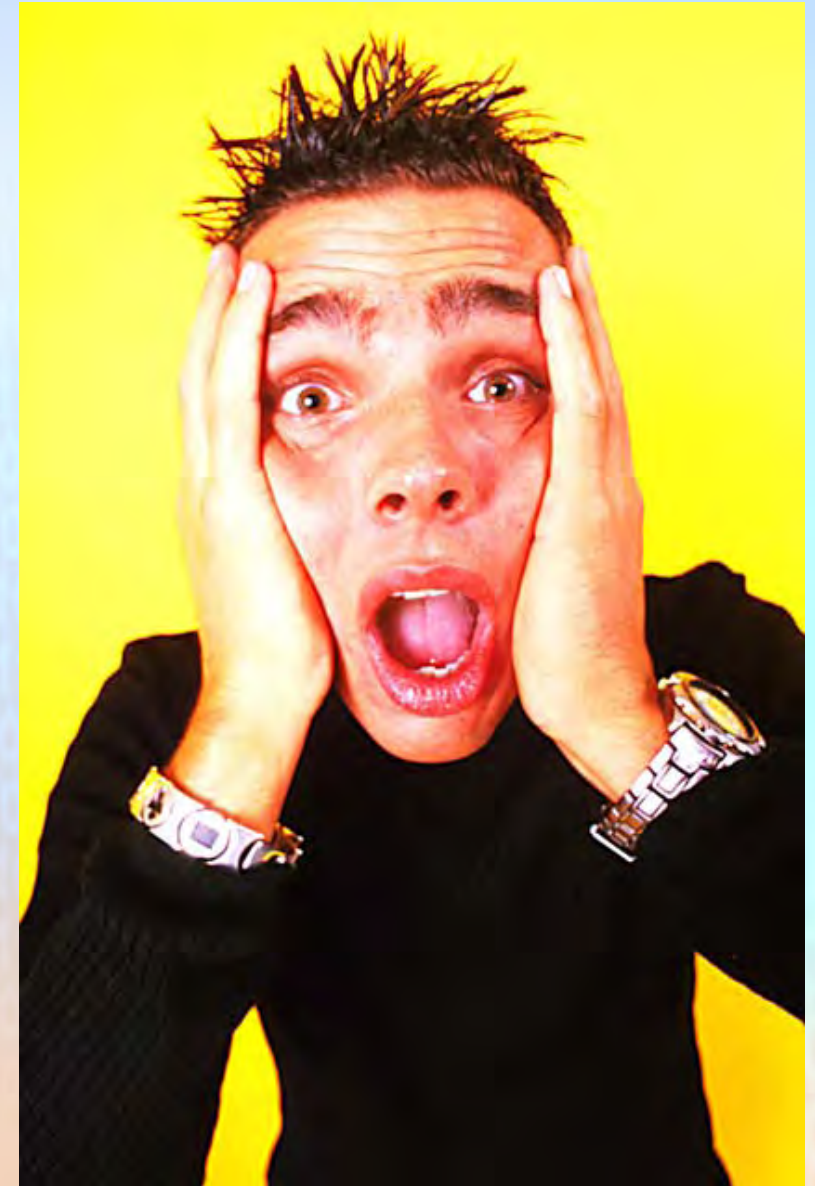
- Beginning with the 2012-2013 academic year, all schools shall begin development of a personal Academic and Career Plan for each seventh-grade student with completion by the fall of the student's eighth-grade year. Students who transfer from other than a Virginia public school into the eighth-grade shall have the Plan developed as soon as practicable following enrollment. Beginning with the 2012-2013 academic year, students who transfer into a Virginia public school after their eighth-grade year shall have an Academic and Career Plan developed upon enrollment. The components of the Plan shall include, but not be limited to, the student's program of study for high school graduation and a postsecondary career pathway based on the student's academic and career interests. The Academic and Career Plan shall be developed in accordance with guidelines established by the Board of Education and signed by the student, student's parent or guardian, and school official(s) designated by the principal. The Plan shall be included in the student's record and shall be reviewed and updated, if necessary, before the student enters the ninth and eleventh grades. The school shall have met its obligation for parental involvement if it makes a good faith effort to notify the parent or guardian of the responsibility for the development and approval of the Plan. Any personal academic and career plans prescribed by local school boards for students in grades 7-12 and in effect as of June 30, 2009, are approved to continue without further action by the Board.

The image features a laptop in the lower-left corner, with a CD-ROM drive open. The background is a gradient of blue and orange, overlaid with a pattern of binary code (0s and 1s) in a light blue color. The text is centered in the upper half of the image.

OPTIONS FOR GETTING TO CAREER SUCCESS

How are you going to support yourself or pay for post-secondary school?

- If a student has to work, does he have any skills that will get him paid more than minimum wage?
- **Annual salary at minimum wage?***
(based on \$7.25/hour for 40 hours per week for 52 weeks)
- ** As of 7/09*
- **Gross Income:**
\$15,080



Options for High School and Beyond

- Industry Certifications
- Community College
- Career College
- Four-Year College or University
- Registered Apprenticeship
- Military Training

The image features a laptop in the lower-left corner with a CD-ROM in its tray. The background is a gradient of blue and orange, overlaid with glowing binary code (0s and 1s) and several large, curved, glowing blue lines that sweep across the top and right sides of the frame.

Consider Career and Technical Education and Industry Certifications

Consider Career and Technical Education in High School

1. Earn certifications that lead to higher salaries for part time work
2. Receive free training that would cost \$1,000s in the private sector



Great Deals for High School Students

<u>Class</u>	<u>Privately</u>	<u>Public School</u>
• A+	\$2,600	Free
• LPN	\$3,296	Free
• Cosmetology	\$5,700+	Free
• Cisco	\$12,000	Free
• Oracle	\$10,000	Free

These Deals Lead to Decent Salaries

<u>Class</u>	<u>Starting Salaries</u>
• A+	\$30k
• LPN	\$34k
• Cosmetology	\$25k
• Cisco	\$75K
• Oracle	\$80k

Remember !

55% of 2006 college graduates started at less than \$30K.

Career and Technical Education offers options!



3. Earn free dual enrollment college credits while still in high school

Graduating from high school and community college at same time!

RTD, May 10, 2005

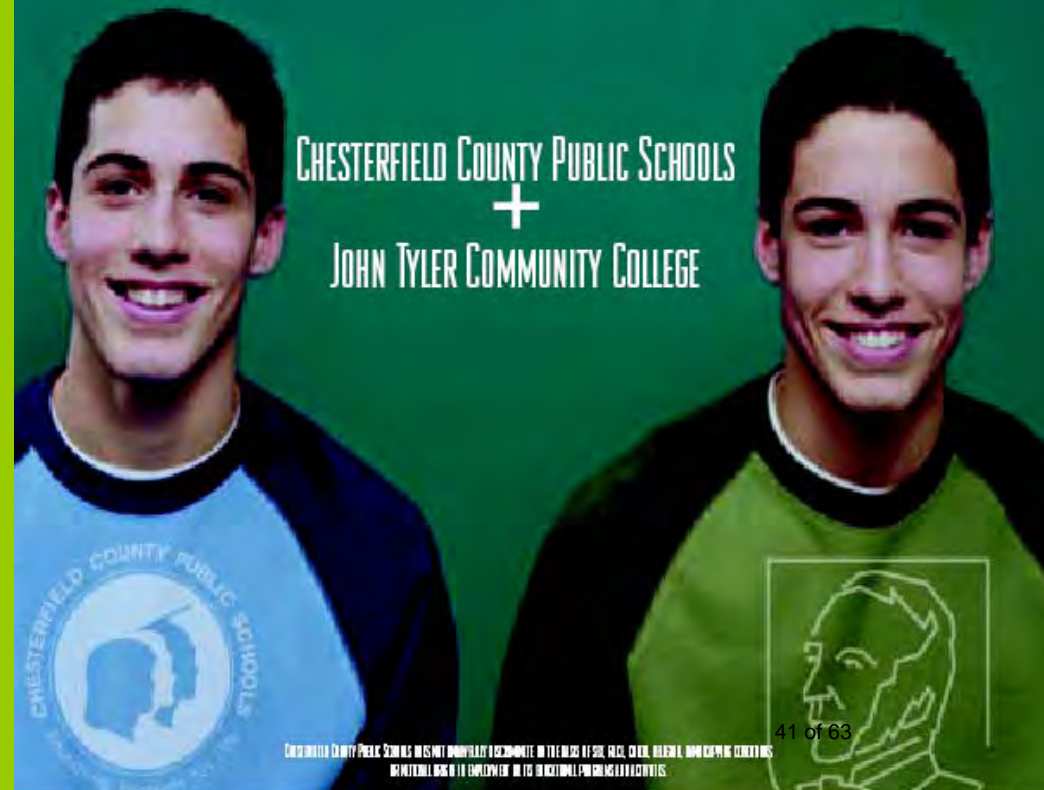
-Available for many CTE courses and some academic courses

-Credits may be accepted at some VA 4-year colleges

-Leads into community college associate degree programs

THINK TWICE ABOUT DUAL ENROLLMENT

Think you can't get your college credit now? Think again. Juniors and seniors, you can get 6, 12 or 18 hours of credit for FREE. Don't miss out. Ask your guidance counselor about Dual Enrollment today.



Career and Technical Education offers options!

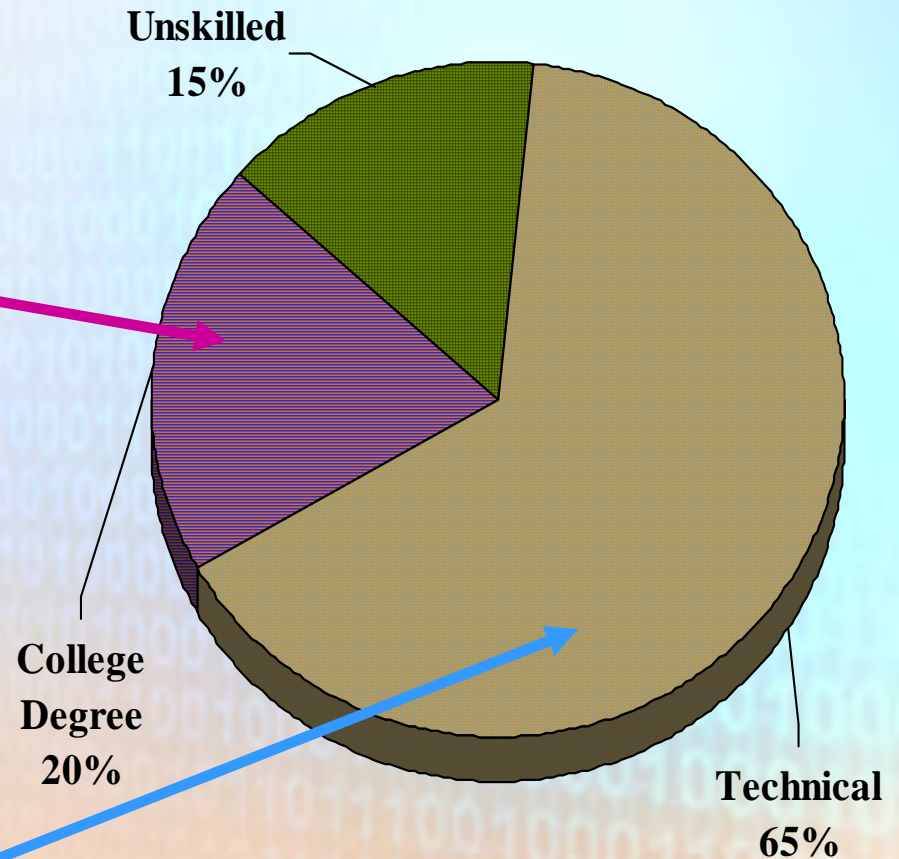
4. Try out a career before investing huge costs



Kimon Campbell
LPN program in
high school -
Worked as LPN
while completing
RN

5. Offers training for current in-demand careers!

- **Remember!**
- Only 20% of jobs require a college degree.
- 65% of jobs require technical training!



The image features a laptop in the lower-left corner, with its keyboard and a CD-ROM drive visible. The background is a gradient of blue and white, overlaid with glowing blue binary code (0s and 1s) and several large, curved, glowing blue lines that sweep across the top and right sides of the frame. The overall aesthetic is futuristic and digital.

Consider Community College

Consider Community College

- Great way to get a feel for college
- Remember that tuition, fees, room and board will rise to more than four or five times Community College cost at a four-year college or university – plan early for Years 3 and 4!

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Consider Registered Apprenticeship



Name: Jennifer King
Age: 24
Hometown: Los Angeles, CA
Salary: \$60,800/yr
College: None*

Consider Apprenticeship

Name: Jennifer King
Age: 24
Hometown: LA
Salary: \$60,800/yr
College: none

* Success doesn't necessarily start with four years of college.

Get started down the road to one of 59 well-paying, rewarding careers in the electrical industry. Many people running our companies started out as apprentices.

Contact your local NECA chapter or IBEW local union for more information.



National Electrical Contractors Association
International Brotherhood of Electrical Workers

www.electrifyingcareers.com

Source: *Techniques* 2007

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Consider Military Training

Consider Military Training

myFUTURE.COM ► get help figuring out what's next.



QUICK SEARCH X

ENTIRE SITE CAREERS COLLEGES ARTICLES

SEARCH

SHOW MILITARY CAREERS ONLY

TOP 10 HIGHEST PAYING MILITARY CAREERS

Any Industry ▼

UPDATE

Career	Salary
Chief Executives	Over \$145,600
Prosthodontists	Over \$145,600
Oral and Maxillofacial Surgeons	\$142,999
Orthodontists	\$137,861
Government Property Inspectors...	\$132,684
Internists, General	\$126,861
Judges, Magistrate Judges, and...	\$125,517
Political Scientists	\$125,250
General and Operations Managers	\$125,113
Ship and Boat Captains	\$121,920

[More Careers](#) | [More "Top" Lists](#)

CAREER

COLLEGE

MILITARY

myFAVORITES

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Articles & Advice | Tools & Checklist | Military "Top" Lists



Whether you feel called to serve or just curious, here you'll find the facts, figures and tools to help you make an informed decision about joining the Military and one of its **five major branches**: Army, Marine Corps, Navy, Air Force and Coast Guard.

military **BENEFITS** >

The Military is more than just base pay. From housing and food to health care and life insurance, learn about the many benefits the Military has to offer.

college **PROGRAMS** >

There are several military programs that help servicemembers pay for college. Find out which college assistance programs could help you get the degree you want.

military **CAREERS** >

There are hundreds of ways to make a living in the Military. Find a career field that interests you.

FIND A MILITARY CAREER:

BY FIELD OF STUDY

BY INDUSTRY

BY TYPE OF WORK

BY CAREER TRAIT

[Agriculture, Agriculture Operations, And Related Sciences](#)

[Architecture And Related Services](#)
[Biological And Biomedical Sciences](#)

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Consider College or University

Who should go to college right after high school?

- Those who are in the top 10% of their class AND score in the top 10% on SAT or ACT
- Those who don't meet #1 but have a clear goal (their own goal, not their parents' goal) that requires a college education.
- If not in either group – get a job, find yourself, go to college later with much greater motivation or choose appropriate post-secondary training

The Chronicle of Higher Education, Nov. 9, 2009,
in Comments to article “Are Too Many
Students Going to College?”

College	Tuition & Total Mandatory Fees	Average Room/Board	Total 2011-2012
Christopher Newport U.	\$10,084	\$9,528	\$19,612
College of Wm & Mary	13,132	8,892	22,024
George Mason Univ.	9,266	8,400	17,666
James Madison Univ.	8,448	8,340	16,788
Longwood Univ.	10,530	8,114	18,644
Norfolk State Univ.	6,690	7,927	14,617
Old Dominion Univ.	8,144	8,218	16,362
Radford Univ.	8,320	7,589	15,909
U. of VA	11,576	9,036	20,612
University of Mary Washington	8,806	8,468	17,274
VA Commonwealth U.	9,517	8,646	18,163
VA Military Institute	13,184	7,446	20,630
VA State Univ.	7,090	8,880	15,970
VA Tech	10,509	6,856	17,365
<i>Average \$ for 4 Years in VA</i>	\$38,136	\$33,396	\$71,532
VA Community Colleges	3,570	NA	3,570

Average U.S. cost for 4 years at a public, four-year college is \$81,356 – up about than 6% from last year. 4 years in a private school – more than \$161,904.

Takes longer to get a degree!

Graduation Rates of Freshmen Entering in 2003:

<u>College</u>	<u>4 yrs.</u>	<u>6 yrs.</u>
•UVA	84%	93%
•William & Mary	83%	91%
•JMU	66%	81%
•VA Tech	53%	79%
•Longwood	39%	59%
•Radford	40%	57%
•George Mason	39%	64%
•VCU	24%	50%
•CNU	39%	58%

State Average: **49%** at 4 years and **68%** at 6 years
(Source: SCHEV 2011)

National Average: **40%** graduate in 4 years (Source: *US News and World Report*, May 3, 2011)

US Average: slightly over **50%** in 6 years (Source: *Chronicle of Higher Education*, Dec. 6, 2010)

How Do You Explain This?

- **Budget cuts make it harder to get required courses for graduation**
- **The more selective the college's admission policy, the higher the graduation rate**
- **Many students change majors adding years necessary to get a degree**
- **60% transfer before graduating**

Cost of Degree example

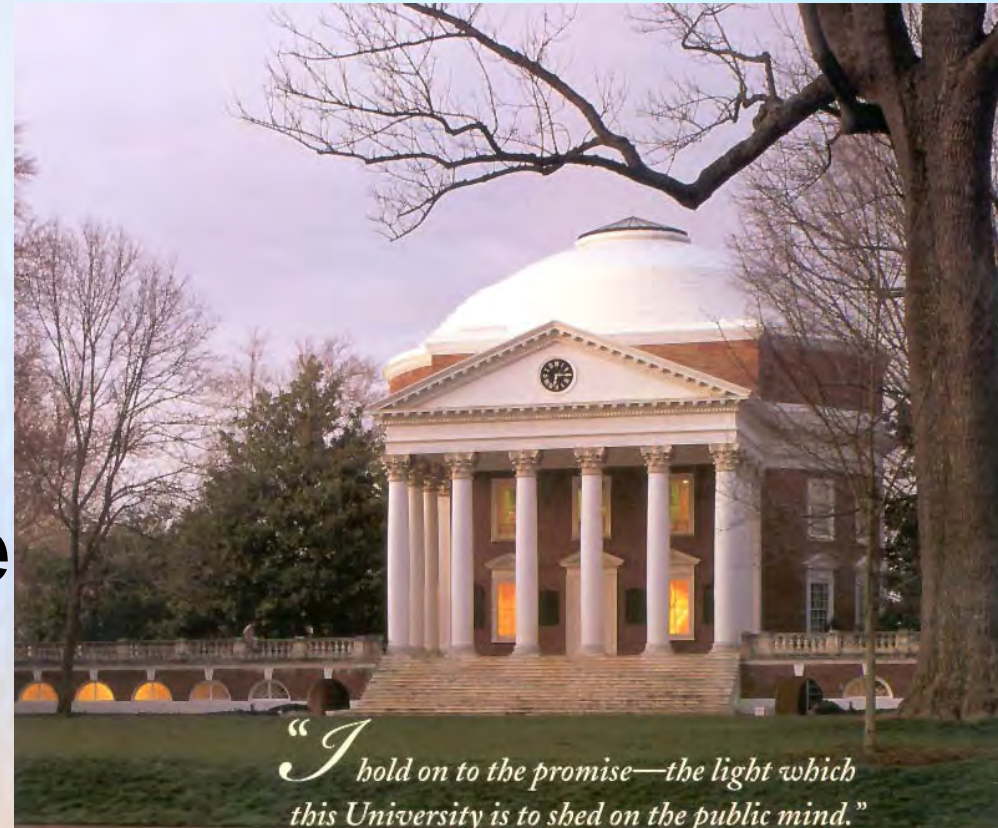
- Average cost of the state colleges -
\$17,650
- **\$17,650 per year (tuition, basic room &
board, mandatory fees)**

$$\begin{array}{r} \text{X } 6 \\ \hline \text{\$105,900} \end{array}$$

SOME NEVER GET A DEGREE!

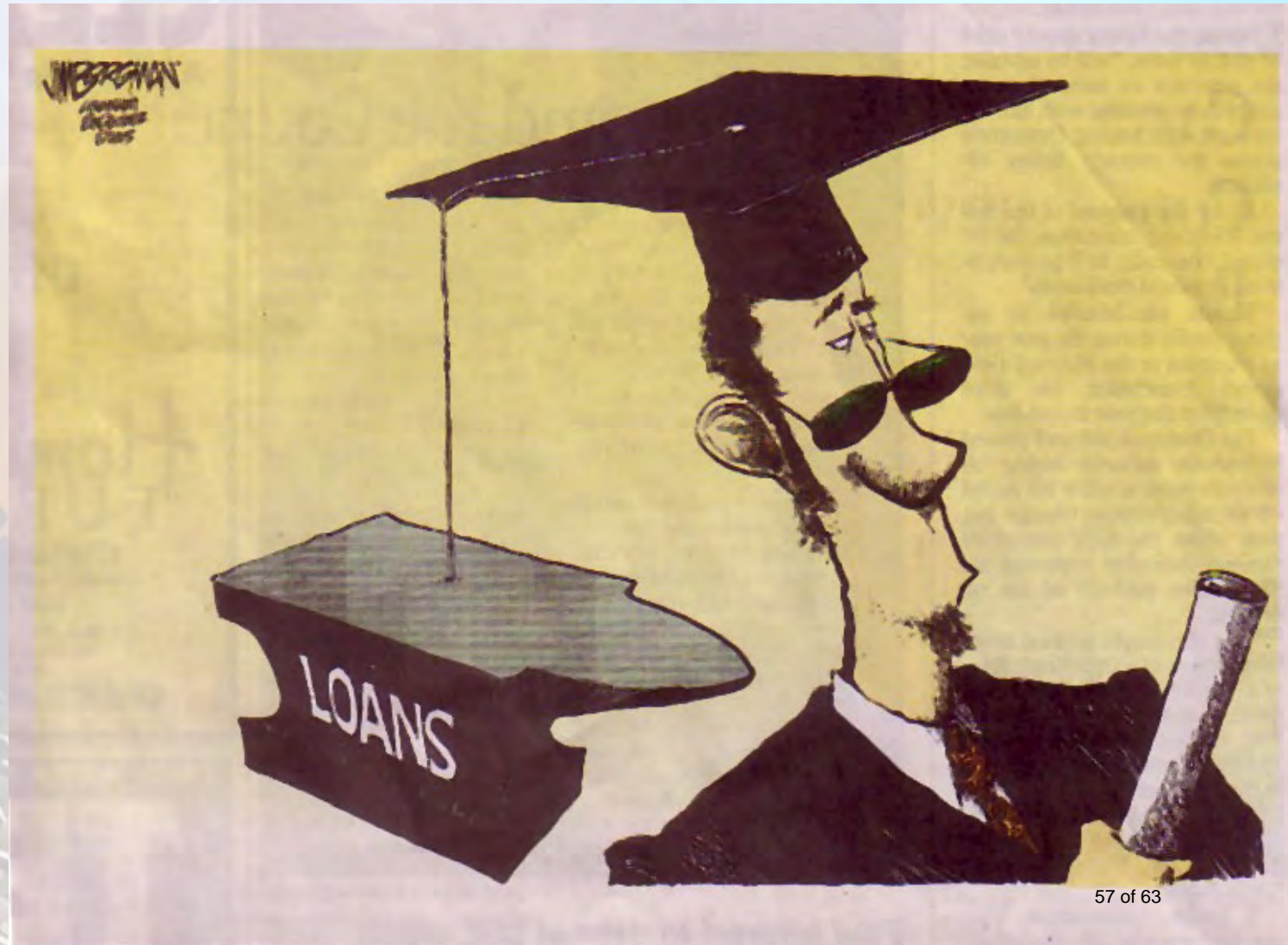
**While over 70%
attend college...**

**only 50% of those
ever get a degree**



Rising Debt!

- Average student debt = \$24,000
- 44% of families earning over \$100,000 have to take out loans



GRADUATING STUDENT ACTIVITY FOR THE CLASSES OF 2009 & 2010

- **Median starting salary: \$27,000**
- **56% held a job in the spring after college graduation (compared to 90% for classes of 2006 & 2007)**
- **~ 50% are holding jobs requiring a college degree**
- **Major is important: those with education, teaching, or engineering degrees more likely to be employed in their field using their degree**

(Source: *New York Times*, May 16, 2011)

Salaries of 2010 College Graduates

- **33%** **Less than \$30,000**
- **30%** **\$30,000 to \$39,999**
- **19%** **\$40,000 to \$50,000**

» Source: CareerBuilder.com's "College Hiring 2010" survey

Often missed in today's career planning . . .

- Many companies require applicants to pass a drug screening test
- If an applicant fails the test, he/she may NEVER be able to work for that company
- Some have mandatory time out for DUIs



And think about it . . .

- What you post on social-networking sites may come back to haunt you
- Your e-mail name needs to be professional or neutral (hotmotorcyclemamma@aol.com *may not be how you want a prospective employer to remember you!*)
- In a list of qualities or skills employers want, *Communication Skills* and *Honesty/Integrity* were at the top. *GPA* was #18 in a list of 21
- Taxpayers invest over \$63,000 in each child's education
- The South is losing an estimated \$256 million a year to provide remedial education to high school graduates not ready for college level work

Resources

- Career Information and CTE Success Stories: www.knowhowvirginia.org
- State Council for Higher Education in Virginia:
<http://www.schev.edu/students/default.asp>
- Virginia Wizard (Community Colleges)
<https://www.vawizard.org/vccs/>
- Virginia Department of Labor and Industry (Apprenticeships):
http://www.doli.virginia.gov/apprenticeship/sponsors_occupations.html
- Sample Academic and Career Plans – VA Dept of Education:
http://www.doe.virginia.gov/instruction/career_technical/career_clusters/sample_plans_study/index.shtml
- Industry Certifications:
http://www.doe.virginia.gov/instruction/career_technical/path_industry_certification/index.shtml
- Military Careers:
<http://www.myfuture.com/military/>

WE BELIEVE . . .

- in Career and Technical Education
- in starting career planning early
- that a high school diploma is the lowest common denominator for career success and that life long learning is a given
- in making the most of high school (take as many CTE and core academic courses as possible)
- in work-based learning
- in informed decisions (have a plan!)