

NEW DIRECTIONS

CAREER GUIDE

**How to
navigate the
job market**

**Explore
careers**

on pages 14-62

**Job-getting
résumé tips**

**Identify
your career
interests**

See survey on page 6

**Job search
checklist**

See the center section

Looking for Another Job?

FIND DEPARTMENT OF LABOR SERVICES IN YOUR STATE

For a guide to all local and regional Department of Labor programs and services in your state, go to <http://www.dol.gov/dol/location.htm>.

If you're in the job market, likely you've been getting a lot of advice and tips. But here's something you need to consider first:

Life should be rewarding. And learning about yourself and about some career choices you'd really enjoy should be fun.

This publication can help in several ways. In addition to job-getting research and advice, you'll find some fun stuff including a career personality quiz and thought-provoking questions about your career interests.

So while you're looking for a new job, use these tools to help lead you to a rewarding future.

NEW DIRECTIONS

CAREER GUIDE

FUTURE PREP

Throughout the book, you'll find facts, advice and self-awareness tools for people entering the world of careers.

CAREER & EDUCATIONAL PLANNING

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CAREER FEATURES

The following articles will help you discover and explore 16 career and industry-related clusters.

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GETTING STARTED

IF you're looking for employment in today's job market, it's time to adopt some new strategies and take control of the search for your next career. These steps will help you get started.

1. Build your network. Online jobs postings and newspaper ads never were the best way to find a job. Employers are getting hundreds of résumés they don't have time to read. That's why they're avoiding typical "help wanted" ads. Although you still may want to respond to these ads, there are some better ways to access what experts call the hidden job market:

- **Personal networking.** Ask family, friends and former co-workers and fellow members of associations you belong to for contact names, phone numbers, etc.
- **Memberships.** Expand your network by asking members of your trade or professional organization or your union for contacts. If you aren't a member, join now. Also join job clubs.
- **Industry-specific job boards.** Go online to find job boards for carpenters, accountants, engineers, health professionals and others.
- **Employer Web sites.** Who would hire someone with your skills? Target the companies in your community or other places you might like to live. Then contact them with a phone call and a résumé.
- **Headhunters/recruiters.** Consultants like Robert Half and others may specialize in your field. Look for them online or in the phone book.
- **Career fairs.** Find them through news announcements and job clubs.

2. Update your résumé. You'll find a sample cover letter and two sample résumés on pages 64-66. And you'll find many more examples on the Internet. What you may not find is some good advice for today's job hunt: Print your résumé on nice paper and get it in the hands of people who can hire you or help you find a job – a hiring manager at a company you targeted, members of your network, job fair contacts, etc.

3. Look for different and creative ways to build experience. In this publication, you'll find a career interest survey on pages 6-9 and information about 16 career clusters on pages 14-62. Use these tools to see if you might like or qualify for careers in other industries. You may need to update skills, get more education or training, volunteer, freelance or offer your services at a smaller salary to get your foot in the door. This will also expand your network.

4. Create a job-search plan. Experts agree that a job search is a full-time job, and it takes a lot of organization and planning. In the center of the book, you'll find a job search checklist that can help.



WISE WORDS

"Finding a job is a full-time job."

Need a Computer?

Personal networking is a great way to find a job. In fact, career counselors say it's the best way. But it's not the only way. The job-getting process demands a computer and Internet access for several purposes:

- Accessing Internet job leads
- Researching career information
- Creating and revising cover letters and résumés
- E-mailing résumés to human resource departments or posting them online
- Printing envelopes, cover letters, résumés, personal business cards and thank-you letters for mailing
- Creating lists of contacts and appointment calendars
- Applying for unemployment benefits and checking in when required

The list goes on. So ...

If you don't have computer skills, or access to a computer, contact your area One-Stop Career Center (<http://www.careeronestop.org>). Some centers provide computers and training.

Many libraries also provide computers for public use.

Some nonprofit agencies and job clubs have computers that job seekers can use to access services, update résumés, etc.

Many public community colleges and universities offer low-cost continuing education for updating computer skills or learning new software. In many cases, these classes come with access to computer labs where you can practice what you learn and use the Internet to do your research and send e-mails. But it pays to check first.

And if you need free e-mail service, sign up at <http://www.google.com> or <http://www.yahoo.com>. Or search for another free e-mail service.



What Can Employers Find Out About You?

In addition to background checks, some employers check out social networking sites before hiring someone new. So if your appearances on YouTube, MySpace and other similar sites are less than professional, delete them. That goes for some of your connections as well.

Important Information About Background Checks

Employers today often do background checks for lots of reasons. For example, they may want to know if a future accountant or cashier has a bad credit record or has declared bankruptcy. Or they may want to know about past legal problems.

The Privacy Rights Clearinghouse provides good information about both situations. Access helpful Web pages at <http://www.privacyrights.org/fs/fs16-bck.htm> and <http://www.privacyrights.org/ar/rosencrim.htm>.

Also read "Dealing with Your Digital Dirt" at <http://www.abilitiesenhanced.com/digital-dirt.pdf>. And review http://hirenetwork.org/fed_occ_restrictions.html and <http://www.jobweb.com/studentarticles.aspx?id=698>.

Then write and rehearse ways to address the matter truthfully and in a few words, explaining what you are doing to rebuild your reputation and emphasizing experiences and skills that can benefit the company.

It's tempting to take the first job that comes along. And you may have to do that for awhile. But there is a better solution – finding a career direction and then planning for a more satisfying future.

FIND YOUR FUTURE DIRECTION

Jobs, of course, are ways to make money. But a *career*-related job will let you pursue personal goals and express your knowledge, skills, talents and interests in the workplace. In this publication, you will find reflection questions like the ones that follow. You will also find a quiz to help you discover career interests you may never have considered before.

And you will find articles about 16 career and industry clusters. Each one comes with a salary and education chart related to several jobs in the cluster.

Now it's time to find your future direction and to get the education you need to succeed. This exercise will get you started:

Step #1: Picture Your Future Job

Some career counselors suggest creating a vision of your future before seeking another job. In fact, they even encourage their clients to find a related picture to hang on the wall and look at every day.

These reflections can help you do something similar. They can encourage you to see yourself in a future work environment.

Work Preferences

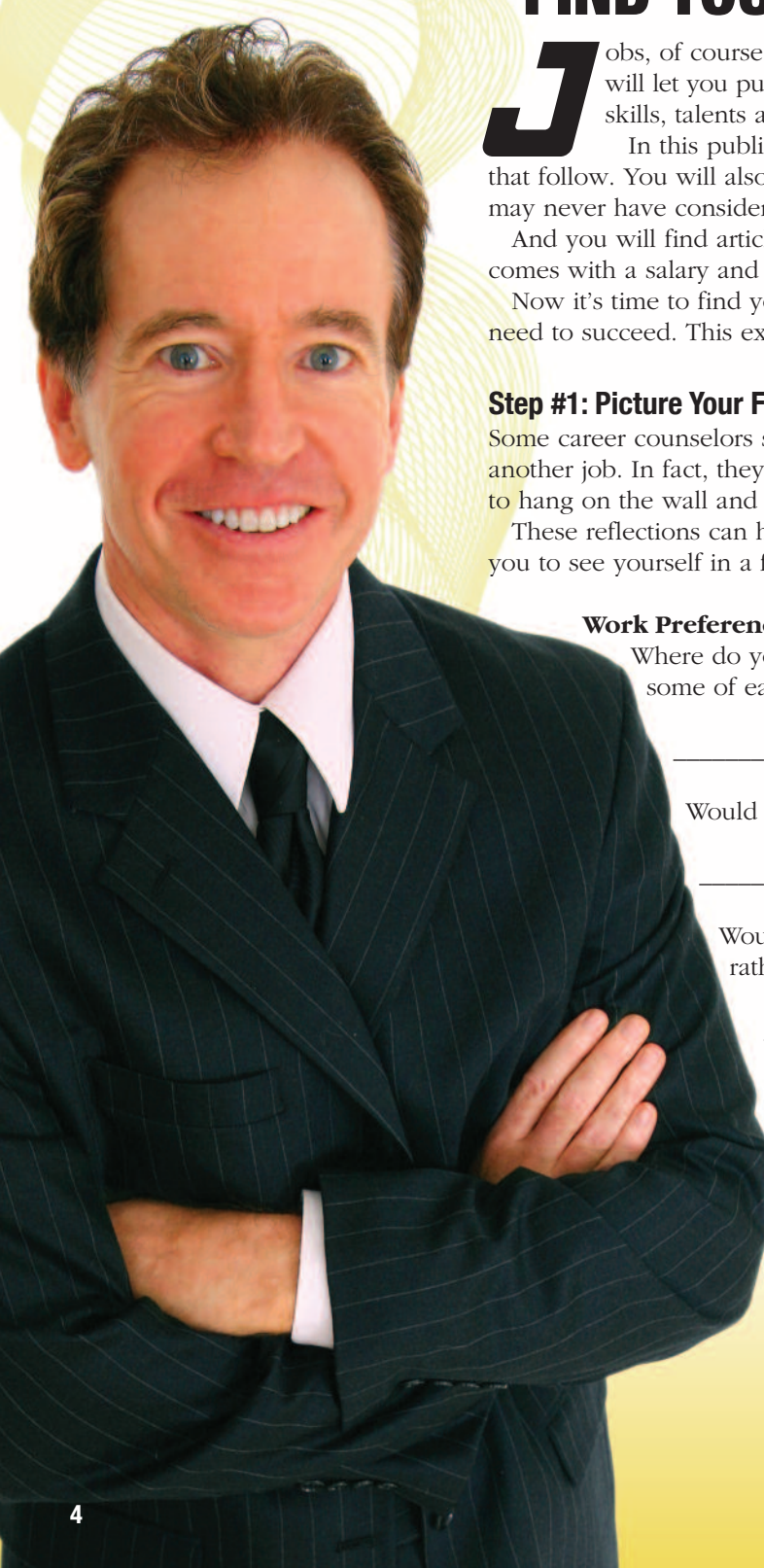
Where do you want to work? Is it indoors, outdoors or some of each?

Would you like flexible work hours or a regular schedule?

Would you prefer working with others? Or would you rather work mostly on your own?

Work Environment

Some people enjoy working in an office at a desk. High-energy, active people prefer hands-on, non-office jobs in construction, health care or natural resources, for example. Consider and check your preferences on the following page.



- Do you see yourself working in public relations, advertising, design or an entertainment environment? As a writer, director, artist, performer, photographer, sound engineer or other kind of technician?
- Would you like managing a business, a department or a unit of a large company? Supervising people? Doing accounting or office administrative tasks? Or handling sales or customer service?
- How do you feel about human services – teaching or counseling; law enforcement, firefighting or legal services; food, hospitality or tourism; or personal services such as cosmetology, child care or similar services?
- Does a hands-on health care career appeal to you? Or would you prefer the business side of health care?
- Would you like to construct buildings, bridges or homes? Or repair machines, appliances or electrical and plumbing systems? Or work in scientific, computing, energy or engineering-related technical fields?
- Or would you prefer working in the natural world in agriculture, horticulture, forestry, wildlife or environmental management or similar kinds of jobs?

Step #2: Consider Your “Likes”

Personal interests, abilities, accomplishments and rewarding experiences all contribute to life satisfaction. A career or job where you can do things you like can make a real contribution. Think about things you enjoy. Then complete the list below:

Classes I liked in school: _____

Skills I'm good at: _____

Activities I enjoy on the job or as a volunteer:


Accomplishments or awards: _____

Step #3: Create a Word Picture

Think about what you've learned. Highlight a few key words from the statements above. Then write a short description about the kind of job you'd like – a word picture that describes a vision of your future.

You may want to rewrite your word picture after you take the career interest quiz that begins on the next page. Together with quiz results, your word picture will focus your job research, résumé writing and interview experiences.





WISE WORDS

“Vision without action is a dream.
 Action without vision is simply
 passing the time. Action with vision
 is making a positive difference.”

– Futurist Joel A. Barker

DISCOVER YOUR CAREER PERSONALITY

The purpose of this career interest survey is to help you discover your “career personality” and some jobs you really might enjoy.

What’s a career interest survey? It’s a simple self-test. This one is based on the Holland Code. There are no wrong answers!

The quiz begins on the next page. Take it to find out where your interests lie. Simply follow these steps:

1. Check activities that you like.

In part 1, read through the list of activities. Then check the ones that interest you.

2. Add up your scores.

In part 2, total your scores. You’ll begin to see your career personality emerge. It’s important to consider your career personality when planning for the future.

3. Evaluate yourself.

In part 3, you may find that you have more than one career personality. That’s okay. Most people do.

4. Think about the future.

In part 4, on pages 8 and 9, you will find careers related to your personality. You are not limited to jobs just within your personality group. Check out career choices within the other personality types. You might be surprised at your career options!

WHAT ARE CAREER CLUSTERS?

Some people are interested in health care. Other people are interested in information technology.

Interests like these have been grouped into what’s called “career clusters.” The term describes knowledge, skills and interests that connect with industries, jobs and educational programs.

This survey and the articles that follow relate to jobs in 16 career clusters. Some states group careers in all 16 of these clusters. Others use fewer clusters to group career fields.

In any case, you will find career clusters useful as you look for industries, career fields and jobs you may like or an educational program you may want to pursue.



1 Check Activities You Like.

Place a check by the activities that interest you. Don't worry if you don't know much about them. Right now it's just important to identify the activities that capture your imagination.

- 1. Save a rainforest or grow organic vegetables
- 2. Solve complicated math problems
- 3. Act in a movie, play or television show
- 4. Work with people in different cultures and societies
- 5. Research news stories and do interviews for the evening news
- 6. Study the economy and predict economic trends
- 7. Read and use "how-to" manuals
- 8. Perform science experiments in a laboratory
- 9. Manage an art gallery
- 10. Conduct a religious service
- 11. Bargain with vendors at a flea market
- 12. Analyze and create statistical graphs and charts
- 13. Build cabinets or furniture
- 14. Study the environmental impact of pollution or global warming
- 15. Write a movie or television script
- 16. Volunteer to lead a club or scout troop
- 17. Choose and purchase merchandise to sell in a store
- 18. Work in a corporate office
- 19. Operate heavy machinery
- 20. Play chess or games of strategy
- 21. Write articles for music, art or entertainment magazines
- 22. Organize an event for a charity or community organization
- 23. Compete with other salespeople in a fast-paced, high-pressure company
- 24. Design computer programs and/or games
- 25. Work outdoors patrolling or maintaining a national park
- 26. Research legal statutes for a lawsuit
- 27. Play a musical instrument
- 28. Work with infants or children
- 29. Run for political office
- 30. Work at a part-time job to save money
- 31. Set up a home theater system or install a car stereo system
- 32. Read science fiction
- 33. Write a short story, play or novel
- 34. Host and entertain guests at a party
- 35. Work in a politician's office
- 36. Enter information into a computer spreadsheet
- 37. Build a model of a jet aircraft
- 38. Study bacteria using an electron microscope and other high-tech equipment
- 39. Design a new line of clothes
- 40. Read and discuss a book or poem
- 41. Sit on a television panel to discuss political or social issues
- 42. Keep accurate accounting and sales records for a business
- 43. Repair a car or motorcycle engine
- 44. Identify different planets, stars and constellations
- 45. Create and fire a ceramic pot or vase
- 46. Work with the elderly
- 47. Sell products for a portion of the profit
- 48. Create and oversee a budget for a large company or government agency

2 Add Up Your Scores.

On the grid below, circle the numbers you checked off. Count the number of circles in each row, and write that total in the blank space at the end of each line. These are your scores for each "career personality" type.

PERSONALITY TYPES

TOTAL

a. REALISTS	1	7	13	19	25	31	37	43	
b. INVESTIGATORS	2	8	14	20	26	32	38	44	
c. ARTISTS	3	9	15	21	27	33	39	45	
d. HELPERS	4	10	16	22	28	34	40	46	
e. ENTERPRISERS	5	11	17	23	29	35	41	47	
f. DETAILERS	6	12	18	24	30	36	42	48	

3 Evaluate Yourself.

In the spaces below, write the names of the two personality types in which you received the highest scores.

HOW CAN KNOWING YOUR PERSONALITY TYPE LEAD YOU TO A SATISFYING CAREER FUTURE? READ ON ...

a. realist

Realists typically are focused, rugged, mechanical and direct. Often athletic, they enjoy working outdoors with tools, animals and plants. Famous “Realists” include primatologist Jane Goodall, hair stylist Vidal Sassoon and architect Paul Williams.

Agriculture, Food & Natural Resources

Animal care technician
Farmer, grower
Forestry worker

Architecture & Construction

Builder, carpenter
Electrician
Plumbing, heating, air conditioning installer

Arts, A/V Technology & Communications

Camera operator, photojournalist
Set designer
Performer

Business, Management & Administration

Accountant
Business manager, entrepreneur
Customer support specialist

Education & Training

Elementary teacher
Coach
Technology teacher

Finance

Claims investigator
Loan officer
Stockbroker

Government & Public Administration

Elected official
Legislative aide
Military officer

Health Science

Dentist, dental hygienist, other
Home health aide
Nurse, nursing assistant
Ophthalmologist
Physical, respiratory, other therapist
Physician, surgeon, veterinarian

Hospitality & Tourism

Food service worker
Recreation worker
Tour guide

Human Services

Hair stylist
Home care aide
Social services worker

Information Technology

Network systems engineer, technician
Telecommunications technician

Law, Public Safety, Corrections & Security

Crime scene investigator
Firefighter
Police officer

Manufacturing

Machine operator
Industrial maintenance technician
Welder

Marketing, Sales & Service

Buyer
Promotion director
Shipping, receiving clerk

Science, Technology, Engineering & Mathematics

Electrical, electronic installer, repairer
Engineer, engineering technician

Transportation, Distribution & Logistics

Body repairer – aircraft, automotive, heavy equipment, other
Driver, pilot, other vehicle operator
Inspector – aviation, environmental, freight, other
Material mover
Mechanic, technician – vehicle, heavy equipment, other

b. investigator

Investigators are curious, observant and like to research, analyze and solve problems. Many enjoy science and math – working independently and in teams. Famous “Investigators” include Marie Curie, forensic scientist Dr. Henry Lee and anthropologist Margaret Mead.

Agriculture, Food & Natural Resources

Food scientist
Forest ranger
Wildlife manager

Architecture & Construction

Code inspector
Preservationist

Arts, A/V Technology & Communications

Journalist
Playwright
Researcher

Business, Management & Administration

Acquisitions manager
Business analyst
Collections clerk
Management analyst

Education & Training

Curriculum developer
Educational researcher
School psychologist

Finance

Accountant/auditor
Claims examiner
Contract administrator
Financial officer

Government & Public Administration

Military intelligence officer
Policy advisor
Tax examiner

Health Science

Biomedical engineer or technician
Hospital maintenance engineer
Medical assistant
Nuclear diagnostic, other technician
Pharmacist
Physician
Radiologic technologist
Research scientist

Hospitality & Tourism

Forest ranger
Hotel security officer
Night auditor

Human Services

Consumer advocate
Credit counselor
Patient accounts representative

Information Technology

Computer security specialist
Data, systems analyst
Information systems architect
Programmer
Test engineer

Law, Public Safety, Corrections & Security

Detective
Forensics examiner, technician
Fraud investigator

Manufacturing

Instrument, process control technician
Quality control specialist

Marketing, Sales & Service

Manager – brand, database, forecasting, other
Market researcher

Science, Technology, Engineering & Mathematics

Engineer, engineering technician – environmental, facility maintenance, industrial, other

Transportation, Distribution & Logistics

Inspector – aviation, environmental, freight, other
Logistics analyst
Mechanic, technician – vehicle, heavy equipment, other

c. artist

Creative and imaginative, artists often work best in unstructured environments where they use words, pictures, music and dance to create products and communicate ideas. Famous “Artists” include Gregory Hines, William Shakespeare and Salvador Dali.

Agriculture, Food & Natural Resources

Florist
Gardener, landscaper

Architecture & Construction

CAD operator, drafter, designer
Landscape architect
Painter, paper hanger

Arts, A/V Technology & Communications

Copywriter
Creative director
Graphic designer
Illustrator
Media specialist

Business, Management & Administration

Advertising manager
Director – marketing communications
Meeting planner

Education & Training

Art teacher
Early childhood, elementary teacher
Instructional media specialist

Finance

Business/financial writer
Direct marketing media specialist
Fund-raiser

Government & Public Administration

Charitable organization executive
Lobbyist
Public relations specialist

Health Science

Art, dance, music therapist
Athletic trainer
Dental laboratory technician
Hospital, health agency public relations director
Medical editor or reporter
Orthodontist
Plastic surgeon
Prosthetist
Prosthodontist

Hospitality & Tourism

Cake decorator
Catering director
Chef
Restaurant concept developer, designer

Human Services

Activities director
Child care facility director, assistant
Cosmetologist

Information Technology

Animator
Audiovisual technician
Web designer, site developer
Webmaster

Law, Public Safety, Corrections & Security

Grant writer, coordinator

Manufacturing

CAD operator, drafter, designer
Product developer, designer

Marketing, Sales & Service

Catalog developer
Designer – fashion, floral, interior, packaging
Direct marketing specialist
Fashion coordinator, model
Manager – e-merchandising, sales promotion, visual merchandising
Retail store decorator, window trimmer

Science, Technology, Engineering & Mathematics

A/V equipment technician
Engineer, engineering technician – broadcast, packaging, sound, robotics
Medical illustrator
Technical writer

Transportation, Distribution & Logistics

Facility architect, designer
Urban, regional planner

4 Think About The Future.

Look at the headlines at the top of these two pages. Circle the ones that match your top two personality types from page 7. Now, look at the career clusters and job titles listed below your personality types. Circle jobs you find interesting. Don't think you're limited only to jobs within your “job personality.” For example, if you're a “Helper” with an interest in “Health Science,” check out Health Science career options within the other job personality types. You might be surprised at what you find.

d. helper

Do you enjoy helping others learn new skills or counseling them on personal problems? Most “Helpers” enjoy working with others, individually and in groups. Famous “Helpers” include Martin Luther King, Jr., Mother Teresa and Nelson Mandela.

Agriculture, Food & Natural Resources

Agricultural sales agent
Animal care technician
Farm manager
Food, drug inspector

Architecture & Construction

Construction foreman, manager
General maintenance contractor
Interior designer

Arts, A/V Technology & Communications

A/V equipment installer
Interior decorator
Performing arts coach, conductor, director

Business, Management & Administration

Administrative assistant
Fundraising director
Human resources manager, recruiter, labor specialist
Real estate associate

Education & Training

Child care specialist
Coach
School counselor
Teacher

Finance

Customer service representative
Debt counselor
Financial advisor
Investment planner
Loan officer

Government & Public Administration

Elected official
Legislative aide
Military officer

Health Science

Admitting clerk
Athletic trainer
Health educator
Home health aide
Medical assistant
Nutritionist
Patient advocate
Physical, respiratory or other therapist
Psychiatrist
Psychologist
Social worker

Hospitality & Tourism

Food service worker
Hotel worker
Recreation worker
Park ranger
Tour guide

Human Services

Counselor – family, mental health, rehabilitation, substance abuse, other
Psychologist
Social worker

Information Technology

Computer support specialist
Help desk technician
Instructional designer
Interactive media developer

Law, Public Safety, Corrections & Security

Corrections educator, counselor
Hazardous materials responder
Probation officer

Manufacturing

First-line manager, supervisor
Quality control specialist

Marketing, Sales & Service

Client relationship manager
Customer support specialist
Field representative
Regional sales manager

Science, Technology, Engineering & Mathematics

Environmental scientist
Maintenance, repair technician
Laboratory technician
Medical researcher
Oceanographer

Transportation, Distribution & Logistics

Cashier, counter clerk
Customer service representative
Driver
Flight attendant
Manager – health and safety, logistics, warehouse, other

e. enterpriser

Do you have strong leadership qualities? You probably like to compete, persuade others and take personal or financial risks. Enterprisers have both social and hands-on skills. Famous “Enterprisers” include Bill Gates, Ted Turner and Rachael Ray.

Agriculture, Food & Natural Resources

Agricultural sales agent
Food broker
Food, livestock producer

Architecture & Construction

Architectural firm owner, consultant
Contractor – general, maintenance, specialty craft

Arts, A/V Technology & Communications

Advertising, design, marketing, publishing company owner
Events, performing arts, trade show producer

Business, Management & Administration

Business owner, entrepreneur
Company president, general manager
Marketing manager

Education & Training

Acting, dance, music studio owner, operator
Charter school founder, operator
Test preparation, learning center franchise owner, operator

Finance

Banker
Financial planner
Financial manager
Treasurer

Government & Public Administration

Ambassador
Elected official
Military combat operations specialist
Policy advisor

Health Science

Hospital, health agency, laboratory executive director, owner, operator
Medical, veterinary practice owner

Hospitality & Tourism

Amusement park, tourist attraction developer
Hotel, motel franchise owner, operator
Restaurateur

Human Services

Counseling, psychology practice owner
Day-care center operator
Funeral home director
Nonprofit agency executive director

Information Technology

E-merchandiser
Information support services provider
Interactive media programmer/software developer

Law, Public Safety, Corrections & Security

Law firm partner
Police patrol officer
Private detective, security service

Manufacturing

Labor relations manager
Manufacturing executive, supervisor
Medical appliance, optical goods maker

Marketing, Sales & Service

Business development manager
Buyer
Merchandising manager
Product developer

Science, Technology, Engineering & Mathematics

Engineering firm owner, consultant
Medical research laboratory operator

Transportation, Distribution & Logistics

Consultant – airfield operations, logistics, other
Government executive
Manager – customer service, logistics, warehouse, other

f. detailer

Detailers like to analyze facts and numbers. Detailers tend to be structured and follow through on others’ instructions. Famous “Detailers” include J. Edgar Hoover, Alexander Graham Bell and Lillian Gilbreth, the first female engineer.

Agriculture, Food & Natural Resources

Bacteriologist, biochemist
Food products processor
Food, fiber engineer

Architecture & Construction

Building inspector
Cost estimator
Electrical, power transmission installer
Safety director

Arts, A/V Technology & Communications

Animator
A/V systems technician
Graphics, printing equipment operator
Web designer

Business, Management & Administration

Administrative assistant
Billing supervisor
Business analyst
Data processor
Payroll clerk
Purchasing agent

Education & Training

Educational researcher
Speech-language pathologist, audiologist
Test measurement specialist

Finance

Accountant/auditor
Actuary
Financial manager
Insurance appraiser

Government & Public Administration

Census enumerator
Emergency planner
Military intelligence officer
Vital statistics clerk
Zoning administrator

Health Science

Biomedical engineer, technician
Laboratory technician
Medical records manager, coder
Patent attorney
Pathologist
Pharmacist, technician

Hospitality & Tourism

Banquet manager
Hotel executive
Supervisor – house-keeping, laundry, maintenance, etc.

Human Services

Emergency management specialist
Nutrition counselor

Information Technology

Computer programmer
Computer security specialist
Data processing, documentation specialist
Network security, systems analyst

Law, Public Safety, Corrections & Security

Criminal investigator
Immigration, customs inspector
Lawyer, paralegal, legal secretary

Manufacturing

Failure analyst
Industrial maintenance technician
Machine tool operator
Quality engineer

Marketing, Sales & Service

Manager – forecasting, fulfillment, inventory, other
Logistics analyst
Marketing researcher
Statistician

Science, Technology, Engineering & Mathematics

Electrical, electronic installer, repairer, technician
Engineer – industrial, health and safety, maintenance, other

Transportation, Distribution & Logistics

Air traffic controller
Dispatcher – air, rail, road, transit, water
Inspector – aviation, environmental, freight, other
Packer



DO YOUR RESEARCH

By now, you're likely to feel either that your current career path is right for you or that you'll find more satisfaction and opportunity in another field or industry. Either way, you have some questions to ask yourself and some research to do. This section will provide some thought-starters.

QUESTIONS TO CONSIDER

1. Will my salary eventually pay for the lifestyle I want?

The charts throughout this publication, the URLs on the next page and the budgeting tool on page 13 can help with your research.

2. Are jobs that interest me available in my area if I want to stay near home? Or will I have to move?

- Use CareerBuilder.com, Monster, One-Stop Career Centers (see below) and QuintCareers.com to access lists of jobs in your area and across the country.
- Also access your state labor office through the U.S. Department of Labor Web site at http://www.dol.gov/esa/contacts/state_of.htm.
- And, for federal government jobs, go to <http://www.usajobs.gov>.

3. Will I enjoy continuing my education?

Some jobs may require updating knowledge and skills. Others may require a state or national examination and continuing education to renew a license or certificate. Are educational options available to you? Can you access them online or at convenient times?



WISE WORDS

"Too often, people don't think about their future goals; they take what's in front of them to satisfy immediate needs. It's important to take a look at future goals, family values, health, wealth relationships and self-achievement and find a career that allows satisfaction in all areas."

— Douglas Vermeeren, author and goal development expert

FIND A ONE-STOP CAREER CENTER

Sponsored by the U.S. Department of Labor, the CareerOneStop Web site at <http://www.careeronestop.org> is an Internet link to career information and services. You also can find locations and phone numbers of One-Stop Career Centers in your area by clicking on "People and Places to Help."

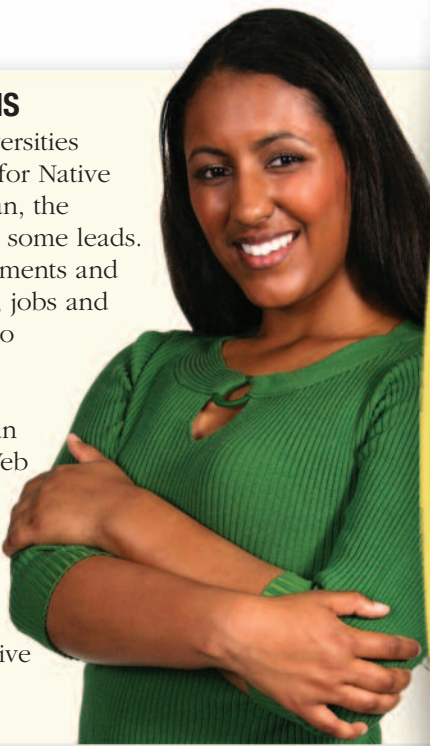
RESOURCES FOR NATIVE AMERICANS

Many career centers, colleges and universities provide education and career services for Native Americans. If you are a Native American, the following Internet sites can link you to some leads.

To access resources for tribal governments and Native Americans, including education, jobs and economic development resources, go to <http://www.usa.gov/Government/Tribal.shtml>.

To access Indian and Native American Services through the CareerOneStop Web site, go to <http://careeronestop.org>, click on “Find Unemployment Benefits, and then click on “Indian and Native American Programs.”

To find sample articles from *Winds of Change*, a career publication for Native Americans, or to subscribe, go to <http://www.wocmag.org>.



CHARTING THE DATA

This publication is a good place to start your research. There’s a section for each career cluster. In these sections, you will find interviews, helpful information and charts that list typical jobs, plus salary and education data.

When you review a chart, please keep in mind that we cite median annual salaries unless otherwise noted. We also use the following abbreviations:

- A = two-year associate degree
- app. = apprenticeship, usually five years
- appt. = special appointment, Congressional approval
- B = four-year bachelor’s degree
- CDL = commercial driver’s license
- cert. = certificate
- CTE = career-technical education
- D = doctoral degree
- DDM/DDS = doctor of dental medicine, doctor of dental surgery
- dir. = director
- ed. = education
- Ed.S. = educational specialist degree
- exp. = experience
- FT = formal training
- govt. = government
- hr. = hour
- HS = high school diploma
- inc. = included
- lic. = license
- M = master’s degree
- MD = medical doctor
- mgrs. = managers
- OJT = on-the-job training
- pref. = preferred
- reg. = registration
- reps. = representatives
- req. = required, requirements
- ST = special training
- techs = technicians

HELPFUL INTERNET SITES TO REVIEW

The following sites and others provide background research and helpful advice. Some provide lists of job openings as well.

CareerBuilder: <http://www.careerbuilder.com>

Career Guide to Industries: <http://www.bls.gov/oco/cg/home.htm>

Career Project: <http://www.thecareerproject.org>

Career Voyages: <http://www.careervoyages.gov>

Monster: <http://www.monster.com>

Occupational Outlook Handbook: <http://www.bls.gov/oco/home.htm>

One-Stop Career Centers: <http://www.careeronestop.org>

O*NET OnLine: <http://online.onetcenter.org>. Click on “Find Occupations.”

QuintCareers: <http://www.quintcareers.com>

Salary.com: <http://www.salary.com>

State labor offices: www.dol.gov/esa/contacts/state_of.htm

Federal government jobs: <http://www.usajobs.opm.gov>

Most of the information for the education and income charts in this publication came from these sources.

VISIT EMPLOYER WEB SITES

Have you focused on your career direction? Or are you committed to staying in your area? Then it’s helpful to visit employer Web sites.

Many employer sites provide lists of job openings. You’ll also find information that you can use to:

- Evaluate employers and employment opportunities
- Target your cover letter and résumé to employer needs
- Send or e-mail your information to hiring managers, or call them (Contact names, phone numbers and e-mail addresses often appear on company sites.)
- Use your knowledge of the company to prepare interview questions and responses

START PLANNING FOR TOMORROW

Finding a new job and handling job-loss details add up to a full-time job in itself. Considerations include planning, income and education ... and sometimes relocation.

PLANNING

Set aside time each day to work on duties related to job hunting and unemployment. You'll find some tips in the center section and on pages 63-68. Also find a place to do your work – perhaps a desk or table at home, a resource room at a career center or the local library. And list and schedule tasks such as these:

- Dealing with job-loss duties related to unemployment insurance, employer benefits and any other job transition tasks
- Following up with my former employer about severance pay, pay for unused vacation and sick days, health benefits, retirement savings, career counseling benefits, references and contacts, and similar matters
- Doing career research and looking for leads to companies and jobs
- Creating targeted cover letters and résumés that relate to company needs (See pages 64-66.)
- Preparing for interviews and writing thank-you notes
- Attending job fairs and meetings of job clubs and professional organizations
- Networking with family, friends, colleagues and acquaintances by phone or in person
- Volunteering for a community agency in a role where you can demonstrate skills and experience or gain other experience.

INCOME

Certainly you'll need money to live while looking for a job. Severance pay may or may not be available, but you may be able to get unemployment insurance. Contact your state office as soon as possible to find out if you're eligible. If so, you and your employer have paperwork to do before you can get your first check. To find an office near you, call or go to:

- <http://www.servicelocator.org/OWSLinks.asp> or
- http://careerplanning.about.com/cs/jobloss/ht/apply_ui.htm

On the next page, if you need it, you'll find helpful information on how to build a budget. The government data on an average household can be a kind of salary guideline. And you can use the budget form to create pre- and post-job budgets for your household.

EDUCATION

After you have reviewed your job options and participated in a few interviews, you may find that you need more education. Talk with a school or career counselor about:

- One- or two-year programs at career-technical schools and community colleges
- Four- or five-year apprenticeships, often employer-paid
- Bachelor's degree programs at colleges and universities
- Distance learning offered via the Internet
- Employer-supported job training and certification programs and employer-paid college classes



HOW MUCH MONEY DO YOU NEED?

Review the following annual expenses for basically a household of three. And be sure to check the footnote to see the before-tax income needed to cover those expenses. Of course, income needs differ based on where one lives and the number in the household.

Item	Amount
Food at home _____	\$ 3,465
Food away from home _____	2,668
Housing _____	16,920
Apparel and services _____	1,881
Transportation _____	8,758
Health care _____	2,853
Entertainment _____	2,698
Personal insurance, retirement savings _____	5,336
Other expenditures _____	5,060
Annual after-tax expenditures	\$49,639

2007 Average Annual Consumer Expenditures, U.S. Department of Labor Bureau of Labor Statistics (<http://www.bls.gov/news.release/cesan.nr0.htm>). Average household includes 2.5 persons, 1.3 earners and 1.9 vehicles. Before-tax income was \$63,091.

DETERMINE THE TAKE-HOME PAY YOU NEED TO COVER YOUR ANNUAL EXPENSES

ITEM	AMOUNT
Food at home	\$ _____
Food away from home	_____
Housing	_____
Apparel and services	_____
Transportation	_____
Health care	_____
Entertainment	_____
Personal insurance, retirement savings	_____
Other expenditures	_____
Total annual expenses	\$ _____
Annual take-home pay for one of your job choices	\$ _____
Less annual expenses (see above)	- _____
Balance (+/-)	\$ _____



Wise Words

"Fortune favors the prepared mind."

— Louis Pasteur,
French scientist

POLICING PLANT PATHOGENS

It's all in a day's work for Young-Ki Jo.



Young-Ki Jo analyzes the turf for suspected pathology.

Young-Ki Jo is like the crime-solving pathologists you see on television – with a few exceptions. Jo is an assistant professor and extension pathologist at Texas A&M University. His victims are turfgrass, rice and soybeans. And his culprits are pathogenic fungi. Still, the premise and some of the techniques are the same, such as DNA-molecular fingerprinting. He explains:

“Many fungal diseases are difficult to diagnose because of the difficulty of isolation and morphological similarity,” he said. “Therefore, DNA-based molecular fingerprinting technique is a useful tool. Knowing causal pathogens solves half of your disease problem ... Of course, the next step is to catch the pathogens and manage the diseases.”

The key word is “managing.”

“Plant pathogens causing plant diseases are often limiting factors to growing plants successfully,” he said. “We cannot eliminate pathogens in any crop system, but we *can* manage them.”

A native of Seoul, South Korea, Jo earned his bachelor's degree at

Seoul National University in 1996 before moving to the United States to attend graduate school. He completed his master's research at Michigan State University on management of turfgrass pest insects and his doctoral research at Ohio State University, where he conducted a five-year study on turfgrass disease management.

Jo is unabashed in his passion for his career.

“Since elementary school, my dream job was to become a biological scientist,” he said. “I loved to grow flowers and chase insects in the field after school. Even still, I love growing various crops and turfgrass in the field and looking after diseases on the plants.”

In addition to teaching, Jo spends a fair amount of time in the office responding to e-mail, returning phone calls, providing information on disease management and working on presentations and journal articles.

He also spends a lot of time on the road, traveling to different locations in Texas to participate in seminars, to present updates on

disease problems and to visit “field trials.” The fields include soybean fields, rice paddies, golf courses and sod farms.

The travel can be tiring, he admits, but the satisfaction he gets more than makes up for it.

“I am paid to learn biological science, more specifically plant pathology, and chase fungi causing crop diseases, which I love doing,” he said. “Then, I turn around and share things I have learned with growers, managers and students. – *Sandra Moran*

AGRICULTURE, FOOD & NATURAL RESOURCES

Occupations in the Agriculture, Food & Natural Resources career cluster involve the production, processing, marketing, distribution, financing and development of agricultural commodities and resources including food, fiber, wood products, natural resources, horticulture and other plant and animal products and resources.

NATURAL RESEARCH

U.S. Department of Agriculture:

<http://www.usda.gov/wps/portal/usdahome>

Farm Service Agency: <http://www.fsa.usda.gov>

Natural Resources Conservation Service:

<http://www.nrcs.usda.gov>

Rural Development: <http://www.rurdev.usda.gov>

USA Jobs: The Official Job Site of the Federal Government:

<http://www.usajobs.opm.gov>

AgrowKnowledge, the National Center for Agriscience and

Technology Education: <http://www.agrowknow.org/about>

Plant pathology: <http://www.apsnet.org/>

Bermuda grass on a Houston golf course fairway awakens from winter dormancy. Young-Ki Jo needs to investigate areas that aren't "greening up."

SHANE EIA: SOIL CONSERVATION TECHNICIAN

Like Young-Ki Jo, Shane Eia is great at dirty work! Eia is a soil conservation technician, who works for the U.S. Department of Agriculture's Natural Resources Conservation Service (NRCS) in Middleburg, Pennsylvania. Other employees in the same agency include technicians, engineers, conservationists, cartographers and soil scientists.

Eia works in a field office where he helps in a variety of soil conservation efforts. These tasks include planning and inspecting soil use in barnyards, manure storages, waterways, stream buffers and other areas. He also helps with several government programs designed to promote good agricultural practices. Part of his job involves using GPS (global

positioning systems) equipment along with a laptop computer, calculator, laser level and digital camera. He also has become familiar with several kinds of technical software.

Eia says the job's challenges, such as keeping up with program changes and satisfying customers, are more than offset by the rewards.

"It's great being able to help out local farmers and see a project completed," he says.

Eia prepared for this career by earning an associate degree at Pennsylvania College of Technology. After college he started working with the NRCS as a part-time employee, and less than a year later, moved into a full-time position. He notes that for many jobs in soil conversation

a four-year degree is recommended, but some positions are open to those with two-year degrees. A background in soils, agronomy or drafting is helpful, he says. And useful attributes in this field include problem solving, good customer relations, a positive attitude and computer skills.

"You can't be afraid to get dirty or step in manure, or to work in all kinds of weather," he says. "You also must be able to work with a wide range of customers from many different walks of life."

– Mark Rowb



CAREER REFLECTIONS

For a list of jobs in this career cluster, go to <http://www.careerclusters.org/resources/ClusterDocuments/agdocuments/1AGModel.pdf>. Pick a few jobs that might appeal to you. Research them using Google and the URLs on pages 9 and 13.

Then complete the exercise below to see if any of the jobs you selected meet your interests and needs. And use this exercise whenever you are considering a job possibility.

Name your job choice: _____

Describe where you'd work and what you'd do: _____

List the annual salary: _____

List education and experience needed: _____

Do you have most of the job qualifications? Yes No

Does the job meet your interests and needs? Yes No

Are you willing and able to get additional education or training?
 Yes No

High-Demand Jobs

Education Needed • Median Income

Food products and processing systems

Agricultural, food science techs	A	\$15.26/hr.
Agricultural, food scientists	B, M, D	53,810
Food processors (bakers, meat-cutters, food batchmakers, etc.)	OJT	20,370 - 26,930

Plant systems

Agricultural inspectors	B, exp.	14.92/hr.
Biological techs	A	15.97/hr.
Tree trimmers, pruners	OJT, cert.	12.57/hr.

Animal systems

Agricultural workers, animal	OJT	9.17/hr.
Veterinarians	D	71,990
Veterinary technicians/technologists	A/B	12.88/hr.
Wildlife biologists	B, M, D	53,300

Power, structural and technical systems

Agricultural engineers	B	66,030
Engineering techs, electromechanical	A	44,720
Computer systems analysts	B pref.	66,460
Wastewater treatment plant operators	HS, cert., A pref.	36,070

Natural resources systems

Conservation scientists/foresters	B	54,970/51,190
Environmental engineering techs	A	40,560
Environmental scientists	M	56,100
Forest, conservation techs	A	
Surveying, mapping techs	CTE, A	32,340

Environmental service systems

Environmental compliance inspectors	B, exp.	47,050
Forest fire inspectors and prevention specialists	CTE, OJT, A	32,940
Hazardous materials removal workers	HS, OJT, lic.	17.04/hr.

Agribusiness systems

Accountants	B	54,630
Purchasing agents and buyers, farm products	HS, some college, B	46,770
Secretaries, administrative assistants	CTE, A, software skills	37,240

Abbreviations and sources: See page 11.

Radon ... Asbestos ... Mold ... Lead ...

They're the types of hazardous materials that would cause most of us to run in the opposite direction. But not Joseph France.

ENSURING A SAFE ENVIRONMENT

As owner and president of France Environmental, Inc., based in Richmond, Virginia, Joseph France is the guy businesses call to find out if they have hazardous materials and, if so, what to do about them.

"Primarily, I do environmental sampling," he explained. "We test for radon, mold, asbestos, lead ... leakage from underground storage tanks. We do the initial testing."

He describes the process like this:

Say, for example, a state agency or a commercial group wants to renovate or demolish an old building. Before they can do that, they have to commission environmental testing – which is where France Environmental, Inc., enters the picture.

France or one of his licensed employees goes into the building and takes samples. These are sent to an independent laboratory that

runs the necessary tests and sends the results to France's company. At the office, staff members compile the results into a report for the company or agency that hired them.

It's the last thing France ever thought he'd be doing for a career. He wanted to build roller coasters.

But after earning a bachelor's degree in civil engineering, France found the search for his dream job to be a challenge. So, he accepted a job working for an environmental engineering company.

There he conducted hazardous-waste management studies to evaluate the significance of hazards and advised clients on treatment

(continued)



Joseph France

ARCHITECTURE & CONSTRUCTION
Occupations in Architecture & Construction involve designing, planning, managing, building and maintaining the built environment.

and containment. This included researching the environmental impact of proposed construction projects, analyzing scientific data and performing quality-control checks.

Five years ago, France struck out on his own.

At first, he worked out of his house. Today, however, he has a thriving business and employs six environmental engineering technicians. Environmental engineering technicians work closely with environmental engineers and scientists to develop methods and devices used in the prevention, control or correction of environmental hazards.

To perform environmental testing, it's necessary to take classes and tests and be a licensed technician in whichever state you intend to work. According to the Bureau of Labor Statistics, "Most engineering technicians enter the occupation with an associate degree in engineering technology. Training is available at technical institutes, community colleges, extension divisions of colleges and universities, public and private vocational-technical schools, and in the Armed Forces."

The good news is that careers as environmental engineers and engineering technicians are expected to grow much faster than average. That means lots of jobs.

– Sandra Moran

THE CONSTRUCTION PICTURE

One of the nation's largest industries, construction provided jobs for nearly 7.7 million wage and salary workers and 1.9 million self-employed workers and family members in 2006, according to the *Career Guide to Industries*. Is a job in Architecture & Construction part of your career picture?

BUILDING A REWARDING CAREER

Daphne Henion is a modern-day, pull-yourself-up-by-your-bootstraps kind of success story.

A 21-year-old from Kaneohe on the windward side of Oahu, Hawaii, Henion has had a lot happen in her young life. She quit school when she was 16 and had a daughter who is now in elementary school. She got her GED and worked as a lei greeter at the Honolulu Airport before realizing that, to build a better life, she would have to find a different job.

Today, she is one of a growing number of women across the U.S. who work in the construction industry. She still remembers the moment she took the plunge.

"I opened up the newspaper and saw the ad for the Hawaii Carpenters Union apprenticeship program, so I thought I would chance it," she said. "I went through the whole process of testing, etc., and started working my first job at S&G Construction doing prefabricated metal framing ... and for the past couple years have been working at a residential job site doing siding (exterior finish)."

Henion also participated in the Carpenter Apprenticeship program at Honolulu Community College.

A lot of people are surprised when they find out what this diminutive woman does for a living – especially because her career choice historically has been viewed as a male-dominated field. But that's changing.

"The job itself I would say is challenging," Henion said. "Working under the hot sun all day is no day at the beach. I just drink plenty water and focus on what I am doing, and it works out."

Monday through Friday, Henion's day begins when she rolls out of bed at 4:30 a.m.

"I arrive at work at 6:30 a.m. and roll out my tools for the day," she said. "Work starts at 7 a.m. and lunch is from noon to 12:30. Then it's back to work until 3:30 p.m. Then its pauhana (Hawaiian for "end of the workday") time and we go home."

It's physically challenging work, but it's also very satisfying. And it's a step forward in Henion's desire to eventually own her own company.

"The pay is great, you get on-the-job training, and you learn to build and do things you never thought you would be able to do," she said. "I feel good to know that I am working hard to make a living and towards my goals for the future."

– Sandra Moran



Daphne Henion





CONSIDERING THESE CAREERS?

From the interviews in this section, you likely gained some insight into construction-related careers. But what else do you need to consider? Test yourself. The more check marks you see, the better you'll like one of these jobs.

- I am willing to follow rules so everyone will stay safe.
- I am able to perform basic mathematical conversions and calculations when mixing solutions that neutralize contaminants.
- I am detail-oriented and responsible. An employer can count on me to carefully identify, label and document findings using the correct names and spellings.
- I have good physical strength, mobility and manual dexterity.
- I am willing to work outdoors in all kinds of weather.
- I am willing to wear a protective suit for several hours, even though it could be hot and uncomfortable.
- I am willing to learn to operate construction equipment.
- I am willing to update my knowledge and skills through on-the-job training and classroom courses.

Constructing a Career

Education Needed • Median Income

Design/preconstruction

Architects	B, lic.	\$ 64,150
Engineers	B, lic.	
Civil		68,600
Electrical		75,930
Environmental		69,940
Mechanical		69,850
Engineering techs, civil	CTE, A, B	40,560
Interior designers	B + cert., lic. or reg.	42,260
Landscape architects	B + lic. or reg.	55,140

Construction

Brick masons	OJT, CTE, app.	20.66/hr.
Carpenters	OJT, CTE, app.	17.54/hr.
Tile and marble setters	OJT, app.	17.59/hr.
Construction equipment operators	OJT, app.	17.74/hr.
Construction mgrs.	B pref., exp.	73,700
Cement masons, concrete finishers	OJT, app.	15.70/hr.
Drywall, ceiling tile installers	OJT, app.	17.38/hr.
Electricians	app.	20.97/hr.
Painters	OJT, CTE, app.	15.00/hr.
Plumbers, pipefitters, steamfitters	OJT, CTE, app.	20.56/hr.
Sheet metal workers	OJT, CTE, app.	17.96/hr.

Maintenance/operations

Heating, air conditioning refrigeration mechanics, installers	CTE or app.	18.11/hr.
Construction, building inspectors	exp., related education, cert.	46,570
Cost estimators	B, exp.	52,940
Electrical and electronics installers and repairers	HS, CTE	
Commercial, industrial		21.72/hr.
Electric motors, power tools equipment		15.80/hr.
Motor vehicles		13.57/hr.
Powerhouse, substation and relay equipment		27.60/hr.
Transportation equipment		20.72/hr.
Landscapeers/groundskeepers	OJT	10.22/hr.

Abbreviations and sources: See page 11.

BUILDING KNOWLEDGE

The American Institute of Architects:

<http://www.aia.org>

Construction careers:

<http://www.constructmyfuture.com>

Electrician careers: <http://www.njatc.org>

Engineers and engineering technicians:

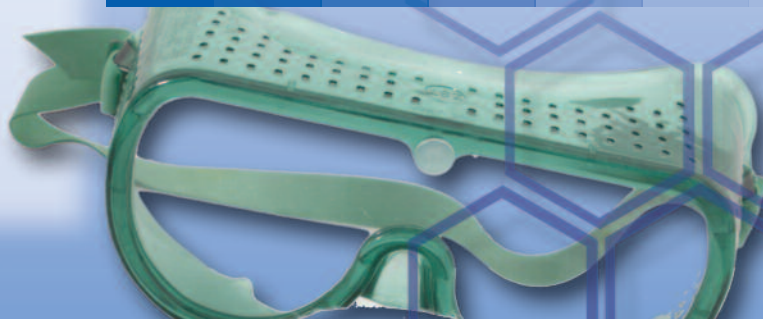
<http://www.swe.org>, <http://www.ascet.org> and <http://www.eteducation.org>

Landscaping careers: <http://www.asla.org>,

<http://www.landcarenetwork.org/cms/home.html> and <http://www.TreeCareIndustry.org>

Mechanical engineering careers:

<http://www.asme.org> and <http://www.ashrae.org>





Deborah Wagman

All of us gather information from several different sources – live or taped performances, broadcasts, the Internet and print. Whatever the medium, packaging that information takes people like Deborah Wagman and Ben Bigler.

INFORMATION ARTISTS

Deborah Wagman: Senior Food Editor

Deborah Wagman is the first one to admit that working as a senior food editor was about the farthest thing from her mind when starting her career journey.

After graduating from high school, the South Dakota native first majored in forestry.

And then psychology.

And then English literature.

“Then I had a brief, but intense spell in which I felt compelled to do something good in the world, so I went to nursing school for two years,” she said. “Although I loved the patient care aspect of nursing, chemistry and pharmacology were very difficult for me ... so, reluctantly and sadly, I dropped out of nursing school and went back to English.”

Although Wagman earned a master’s degree in English literature, she couldn’t find a job in that field. Instead, she went to work in food service and waiting tables.

“I thought this was the pits at the time,” she said. “But now I know that it was another corner of the

foundation that I stand on today. I learned a lot about food.”

And it was this experience that set the stage for the career she has today working for Meredith Publishing Group, the company that publishes *Better Homes and Gardens*, *Ladies Home Journal* and *Fitness* magazines – just to name a few. Wagman described how she got her start.

“Someone on a lark asked me to write a food article,” she said. “I did, they loved it, and they asked me to write more. I was a freelance writer for several years before, and one day I was asked to join this company as an editor. Suddenly, everything I had done in life fell together into one job that made the most of *me*.”

As a senior food editor for Meredith Special Interest Media, Wagman writes, manages and produces food magazines.

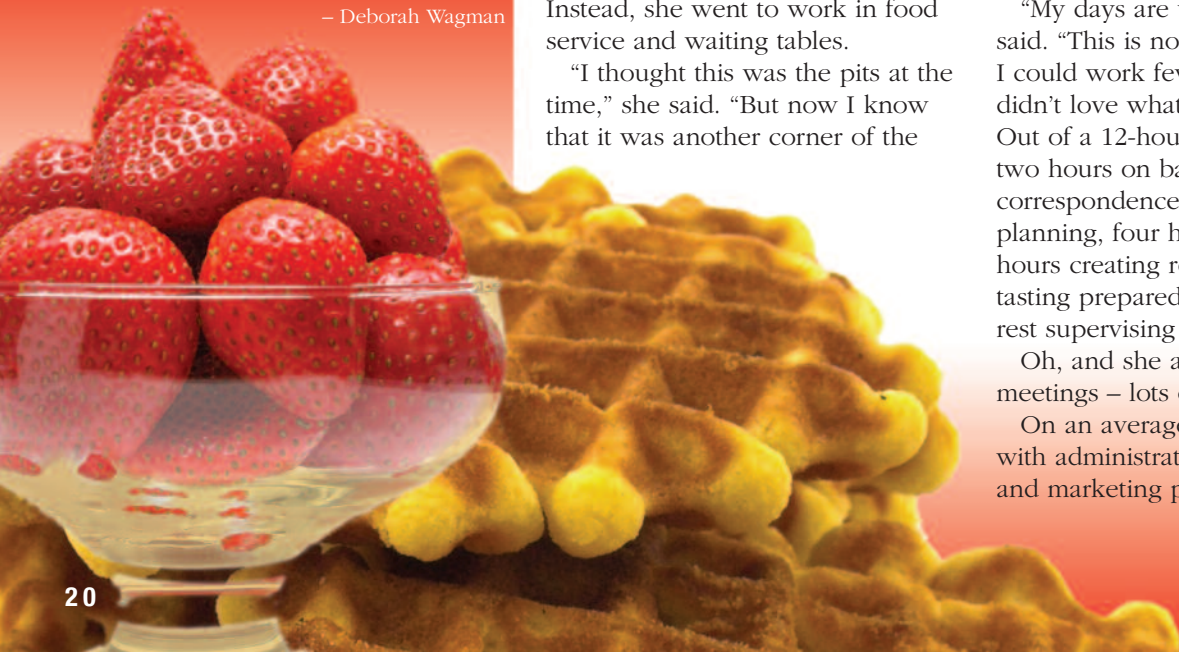
“My days are very long,” she said. “This is not a complaint. I could work fewer hours if I didn’t love what I do so much! Out of a 12-hour day, I spend about two hours on basic business correspondence and organizational planning, four hours writing, two hours creating recipes, an hour tasting prepared foods and the rest supervising photography.”

Oh, and she also attends meetings – lots of meetings.

On an average day, she works with administrative assistants, sales and marketing people, brand

“To this day, I feel an enormous thrill when I see the completed magazine on the newsstand. And if I see someone put it in their shopping cart, I can barely keep my mouth shut. I am so proud that I want to tell them, ‘I helped make that magazine!’”

– Deborah Wagman





managers, artists and designers, cooks and home economists, registered dietitians, photographers, food stylists, prop stylists and prepress technicians.

“Actually,” she said, “the whole process is pretty magical – what starts as me, with my tummy growling, sitting at my computer making up recipes, then goes to artists who give my recipe color and life, and then goes to technicians who put all of this on the page and bind it into a magazine.

“Being surrounded by so many creative people is incredibly inspirational,” she said.
– Sandra Moran

ARTS, A/V TECHNOLOGY & COMMUNICATIONS

Careers in the Arts, A/V Technology & Communications career cluster involve designing, producing, exhibiting, performing, writing and publishing multimedia content including visual and performing arts and design, journalism and entertainment services.

COMMUNICATIONS CAREER RESEARCH

- Advertising: <http://www.aaf.org>
- A/V technologies: <http://www.infocomm.org>
- Broadcast engineering: <http://www.smpte.org/home>
- Broadcasting: <http://www.nab.org> (click on “Foundation” for career resources and programs) and <http://www.rtnda.org>
- Graphic design: <http://www.gag.org>
- Journalism: <http://www.spj.org>
- Public relations: <http://www.prsa.org/>
- Photography: <http://www.nppa.org>
- Videography lessons: <http://edcommunity.apple.com/ali/story.php?itemID=365>

PERFORMING ARTS RESEARCH

Careers in film, music and theater are another major part of the Arts, A/V Technology & Communications career cluster. For more information, go to the *Career Guide to Industries* at <http://www.bls.gov/oco/cg/cgs031.htm> and the *Occupational Outlook Handbook* at <http://www.bls.gov/oco/home.htm>. Also go to:

- Acting: <http://www.sag.org>
- Animation: http://corporate.disney.go.com/careers/who_feature_animation.html
- Dance: <http://www.danceusa.org> and <http://nasd.arts-accredit.org> (click on the FAQ section)
- Film: <http://www.afi.com>
- Literary writing: <http://www.pen.org>
- Music: <http://www.afm.org/public/home/index.php>;
- Screenwriting/scriptwriting: <http://www.asascreenwriters.com> and <http://www.scriptwritersnetwork.com/index.asp> (click on “High School Outreach”); also google “playwrights.”

TAKE A DEBORAH WAGMAN-STYLE CAREER JOURNEY

From childhood, some people know exactly what they want to do. Others think about careers involved in one or maybe a couple career clusters. Still others, like Deborah Wagman, explore a variety of interests before finding the perfect career.

Consider Wagman’s career journey and how it led her to a job she loves. Now list interests, experiences and educational opportunities that you enjoy. Then list ones you’d like to pursue. Finally, name some satisfying occupations you might find at the end of your career journey.

WHAT I ENJOY NOW

(Interests, experiences, classes, jobs, etc.)

WHAT I THINK I’D LIKE TO DO

FUTURE OCCUPATIONS I MIGHT LIKE



Ben Bigler



Ben Bigler



Ben Bigler: Features Designer

If a picture is worth a thousand words, then over the course of his career, Ben Bigler has worked with hundreds of thousands of words.

Each day, as part of his job as features designer for *The Oklahoman*, Bigler is responsible for designing the features section of the newspaper and making sure that all the visual design elements come together in a cohesive package.

It's a daily creative challenge – which is part of why he likes it so much.

“Most days are spent rounding up material and deciding what the section fronts will look like,” he explained. “We have ‘section budgets’ or lists of stories that will be in sections. I talk with other editors, and we decide the dominant story for each front and which visual element will have the most impact to make the story more interesting to our readers.”

To accomplish this, he works with the reporters who write stories, photographers who take pictures, illustrators who do drawings and other editors who help edit and make decisions. Additionally, Internet specialists are becoming more important as they try to get more stories on the Web. Once the design is determined, the rest of the day is spent on the computer putting the pages together.

“I put the stories on the pages and then also begin to think about how the visual aspects will be best packaged with the stories,” he said. “I go through available photos, and I decide if I will need to make an illustration for the package. We have print deadlines each day when the page has to be sent to production. Those deadlines determine the work flow.”

“What I do today will be on the street in the paper tomorrow, or at the very latest, in a few days,” he said. – Sandra Moran





WANT TO FOLLOW BEN BIGLER'S EDUCATIONAL JOURNEY?

Ben Bigler became a photojournalist after earning a bachelor's degree in journalism. He then worked for 15 years as a photographer and an editor before going to graduate school to earn a visual communications master's degree in page design and photo editing.

But despite the college degrees, he finds the following skills most useful:

"I use English constantly," he explained. "Crafting words to go with the design of a page is an integral part of my job."

"Technology is also used continuously. We use computers for everything now. And those computers and their software are updated and improved from time to time."

"Math is used for measurement ... and math that is part of a story has to be double-checked. Percentages and other statistics are common."

Finally, Bigler offers this advice ...

"Develop a love for learning. Learn how to communicate in words and pictures. Learn everything you can about computers and how they work with visual elements. Embrace the changing communication technology."

Performance Pay Education Needed • Median Income

Audio and video technologies		
Audio, video equipment techs	OJT, CTE, A	\$ 34,840
Broadcast techs	CTE, A or B	30,690
Performing arts		
Actors	exp., FT	11.61/hr.
Dancers	Long-term training	9.55/hr.*
Musicians	B pref.	19.73/hr.
Producers, directors	exp., B	56,310
Visual Arts		
Art directors	FT, B, exp.	68,100
Multimedia artists, animators	A or B	51,350
Set, exhibit designers	B pref.	41,820
Printing technologies		
Prepress techs	CTE, A	16.01/hr.**
Printing machine operators	OJT, app., CTE	14.90/hr.**
Journalism and broadcasting		
Advertising mgrs.	B	98,720
News analysts, reporters	B	33,470
Television, video, motion picture camera operators	CTE, FT	40,060
Telecommunications technologies		
Line installers, repairers	OJT, CTE, app.	24.41/hr.
Radio, telecommunications equipment installers, repairers	CTE, A, B	25.21/hr.

*Abbreviations and sources: See page 11. *Slower than average growth rate. **Declining growth rate.*

THINKING ABOUT FREELANCING?

Designers, actors, photographers, writers, advertising and public relations specialists, sound and lighting technicians, and many others in arts-related fields are in business for themselves. Some of these entrepreneurs act as sole proprietors. Others form partnerships or corporations.

In fact, if you become a "freelancer" – another name for a self-employed, independent contractor – you are, by default, a sole proprietor. That means you are subject to local, state and federal laws that apply to anyone operating that kind of business.

There are other business structures to consider, too, such as partnerships and corporations. That's why it's important to engage an accountant, an attorney and an insurance carrier to help with creating the structure of your business and to help with taxes, contracts, liability coverage and other important business-related matters.

For more information, go to the quiz link on page 24. Also go to the Small Business Administration site at <http://www.sba.gov>, to <http://freelancersunion.org> and to the Web sites of professional and trade associations in your field. Check out the following *Wall Street Journal* sites as well: <http://guides.wsj.com/small-business>, <http://online.wsj.com/article/SB123498006564714189.html> and <http://online.wsj.com/public/page/news-small-business-marketing.html>.



Entrepreneurs are able to take a creative business idea, a special talent or an expertise and combine it with marketing, a willingness to take risks and the determination to build a successful enterprise. It's a real adventure, but it takes more than just a great idea or special expertise to create a successful business. It takes hard work, ambition and the self-discipline and confidence to turn that idea into reality.

ENTREPRENEURSHIP

Roman philosopher and politician Seneca said, "Luck is what happens when preparation meets opportunity."

If that's true, then Tracy Pikhart Ritter has been incredibly lucky because each career choice she's made has prepared her for her current career as a sought-after restaurant manager/consultant.

Interestingly enough, though, it wasn't her first career choice.

A New Jersey native, Ritter went to college to study accounting and retail. But when she couldn't find a job in her field, she took a job working in a kitchen. That, in turn, led to earning her degree from the French Culinary Institute in New York City and a whirlwind career as a renowned chef, cookbook author, restaurateur, spa/facility manager and now, management consultant.

"I really didn't know what I wanted to do at first," she said.

"I just thought that it would be a good career. But the people I met working in the kitchen were so unique. There were people from all over the world ... I love the diversity of it."

That diversity is part of what has kept her excited about her chosen career and allows her to constantly evolve as career opportunities present themselves.

As General Manager and Executive Chef for Sunrise Springs Resort Spa in Santa Fe, New Mexico, her most recent job, Ritter supervised the operations of the property's 70 acres, 58 rooms, spa facility, restaurant and art center. Now, as an entrepreneur, she's a consultant for resorts and businesses that want to streamline and/or reinvent themselves.

An average day at Sunrise Springs began by checking e-mail, voice mail and meeting with her managers. Then she began "dealing with the day."

This included

interacting with employees and customers, directing the operations of the facility, working with the sales office, walking the property to see that everything is as it should be, checking on the status of maintenance projects and working with the marketing team.

Ritter recommends that anyone who is interested in a career in hospitality and tourism should go to work in a restaurant or a hotel. She also recommends getting training.

"Go to school," she said. "Even if it's a two-year program, it will save you so much time ... If I were to do it all over again, I'd go to hotel school. It just accelerates your career."— *Sandra Moran*

BUSINESS, MANAGEMENT & ADMINISTRATION

Careers in the Business, Management & Administration career cluster encompass planning, organizing, directing and evaluating business functions essential to efficient and productive business operations. Career opportunities are available in every sector of the economy.



Tracy Ritter

Thinking About Entrepreneurship?

Try the quiz at <http://www.bankrate.com/brm/news/biz/soho/20010710a.asp>. Also see "Freelancing," page 23.

WANT TO BE A MANAGER?

Tracy Ritter describes management as being “both an art and a science,” as she reels off the skills necessary to do the job. Considering a management career? Do you have what it takes? Check here:

- Basic math
- Computer skills, including Excel spreadsheets
- Web knowledge
- The ability to speak and write
- Willingness to work long hours
- Teamwork skills
- Postsecondary education

CAREER CONSIDERATIONS

It's easier to find a job in high-growth industries. Tracy Ritter's career path can be found in two of them – business and hospitality.

According to the Bureau of Labor Statistics (<http://www.bls.gov/oco/cg/home.htm>), professional and business services industries are projected to be among the fastest-growing over the next decade. That business sector includes management and related consulting. There also will be a significant demand for workers in the hospitality and tourism industry.

Which high-growth industries interest you?

How does your career interest relate to a growing industry?

Business Research

Education Needed • Median Income

Management

Administrative services and facilities mgrs.	cert., CTE, A, B	\$ 67,690
Purchasing mgrs.	OJT, B, exp.	81,570
Top executives	B or higher	85,230

Business financial management and accounting

Accountants and auditors	B, cert.	54,630
Financial clerks, book-keeping, payroll, etc.	HS, related CTE, OJT	30,560 - 32,400
Financial mgrs.	B, M pref.	90,970

Human resources

Compensation, benefits and job analysis specialists	B	50,230
Human resource mgrs.	B	88,510
Training and development specialists	B	47,830

Business analysis

Advertising, promotions mgrs.	B, exp.	73,060
Budget analysts	B, M pref.	61,430
Operations research analysts	M	64,650

Marketing

Marketing mgrs.	B, M, exp.	98,720
Public relations mgrs.	B, M, exp.	70,000
Sales reps., wholesale	Some college, B pref., exp.	64,440

Administrative and information support

Administrative assistants	FT, CTE, A	37,240
Computer support specialists and systems administrators	CTE, A, B	41,470
Computer systems analysts	B, M	69,760
Customer service reps.	HS, A, B	13.69/hr.

Abbreviations and sources: See page 11.

BUSINESS DATA

Accountants: <http://www.aicpa.org/Becoming+a+CPA> and <http://www.startheregoplaces.com>

Administrative professionals: <http://www.iaap-hq.org>

Human resources professionals: <http://www.shrm.org>

Project managers: <http://www.pmi.org>



Frank Cuda

A 2008 National Career and Technical Education Teacher of the Year, Frank Cuda became a teacher later in life. He continues to inspire students, as does Patricia Cisneros. The teacher-athlete is now an Olympic-level wheelchair basketball coach.

PREPARING STUDENTS FOR LIFE

Frank Cuda: Construction Technology Teacher

When Frank Cuda talks about teaching, the words tumble out of his mouth in a torrent. He speaks quickly, with enthusiasm, his stories punctuated with exclamations. It's part of what makes him an effective teacher in an area that others might consider hard to teach at the high school level – carpentry.

It can be a challenge, admits Cuda, construction technology teacher and SkillsUSA advisor at Wakefield High School in Raleigh, North Carolina. But for this 2008 National Career and Technical Education Teacher of the Year, his passion for educating students and preparing them for life after high school makes it a labor of love.

Cuda didn't start out as a teacher. He began his professional life as a carpenter. The product of a Connecticut vocational high school, Cuda was immediately recognized for his skills in carpentry and construction.

Because of this, he had no problem finding a job after graduation. And as he worked, he learned new skills and was given a variety of opportunities – including building an addition to match the original architecture of a home designed by Frank Lloyd Wright.

Eventually, he started his own business doing home improvement and renovations. It was rewarding, but the market slowed. He and his family moved to North Carolina where there was more work. And it was there that a second career was born.

“It was actually my wife’s suggestion,” Cuda said as he described teaching part-time at Wakefield High School in the morning, running his construction company during the day and going to school at night to get his teacher’s license.

Cuda’s teaching style is unconventional. For example, he teaches a construction word of the day – in Spanish. He uses fresh chocolate chip cookies and games of chess as rewards for learning the material.

His goal is to make class interesting and to help students prepare for careers in construction and develop carpentry skills. He does this through two construction technology classes – Level 1 and Level 2. At Level 2, students build model homes to scale. Topics covered in the classes include:

- The nature of wood – learning how trees grow and what that means for the wood they produce
- The history of carpentry
- Hand tool usage and
- Construction math

Cuda also shares experience he gained in the real world. “I encourage students to take construction management classes, architecture classes ... stick in some additional education and be really prepared ... to do co-op stuff and keep on going until they’re finished.”

And, he advises, “Don’t be the carpenter on the job – be the head person.” – *Sandra Moran*

FIND AN ALTERNATE ROUTE TO TEACHING

Go to <http://www.teach-now.org>, the Web site of the National Center for Alternative Certification. You’ll find information for all states, all locations, all grades and all subjects.





USA women's wheelchair basketball team members, including Patricia Cisneros (front row, second from left), took gold medal honors at the Athens 2004 Paralympic Games.

Patricia Cisneros: Coach

It's impossible to write about Patricia Cisneros and her work as a teacher, mentor and coach without mentioning "the accident."

A freshman at Indiana University in 1997, she was in a car with friends and fell asleep in the back seat. The next thing she remembers is waking in a hospital bed paralyzed from the hips down.

To many, this situation could be considered a tragedy. But for Cisneros, who allowed herself to be sad for about six months, it was anything but that. It was an opportunity ... a turning point that would allow her to achieve new heights and help others learn and grow.

A high school runner and basketball player, Cisneros was an athlete. Knowing that, her physical therapist introduced her to wheelchair basketball as part of her rehabilitation. She had no idea that she would set Cisneros on a path that would ultimately send her to the 2000, 2004 and 2008 Paralympics Games in Sydney, Athens and Beijing and would prepare her to be the first women's wheelchair basketball coach at the University of Illinois.

"When I was younger, I had so many great teachers that made an impact on my education and on my life," she said. "So when I started school for my undergraduate degree, my major was elementary education. And then I got hurt. But nothing had

changed. I knew despite having the disability, nothing changed. I knew that I wanted to be a teacher."

Cisneros earned a bachelor's degree at Valparaiso University in elementary education with an endorsement in reading and a master's degree from the University of Illinois in education with an emphasis in bilingual education and English as a second language. But the entire time, she continued to play competitive wheelchair basketball and train for the Paralympics.

It became such a force in her life that in 2007, she left her job teaching fourth grade in Tempe, Arizona, and decided to tackle the lack of female coaches in women's wheelchair basketball.

"There are a lot of people that did so much for me getting involved in wheelchair basketball and leading me through these great journeys I've been on that I told myself, 'I'm going to get into coaching,'" she said. "And then the University of Illinois job opened up. It was a little earlier than I would have liked, but I applied, thinking it would be great experience for me to interview and get that feel for a head coaching position. And to my surprise, I got it."

She considers her job not just that of a coach, but also as a mentor and an advocate for women's disability sports.

"I coach the wheelchair basketball team and it's mostly ... not about wins and losses ... it's just about improving their skill and personal skills and life experiences," she said. "I also coordinate events. It's all about promoting disability sport. And my focus, obviously, is more along the gender lines with females." – *Sandra Moran*

"The best part of the job is doing something I'm so passionate about. There is nothing I would do differently. I've made some dumb mistakes, but there's no way I would change my life – even the accident – because I know the outcomes."

– Patricia Cisneros

EDUCATION & TRAINING

Careers in the Education & Training career cluster involve planning, managing and providing education and training services and related learning support services.



Coach Patricia Cisneros on the job

ON THE JOB WITH COACH CISNEROS

In addition to coaching, doing administrative work and planning events, Patricia Cisneros also recruits and evaluates players who apply to the program.

During the season, her days begin at 5:15 a.m. She holds practice from 6:30 to 8:30 a.m., with an additional hour twice a week for individual skills practice. By 10 a.m., she's in the office where she takes phone calls, responds to e-mails and participates in various meetings.

Her lunch hour is spent getting in her own workout and then grabbing a quick bite to eat before an afternoon of meetings, working with the researchers who are studying and advising her team, planning practices with the coaching staff, discussing player progress with the trainers, and being available to her student athletes. If she's lucky, and the team isn't playing or out of town, she is able to get out of the office by 4:00 or 4:30 p.m.

It's a busy schedule, to be sure. But she's quick to say there's nothing about her life or her career she would change.

Educational Data

Education Needed • Median Income

Education administrators and administrative support

Computer support specialists and systems administrators	A, B pref.	\$ 41,470
Elementary and secondary school administrators	M, D pref., lic., exp.	77,740
Instructional coordinators	B, M pref., exp.	52,790
Preschool and childcare center administrators	cert., B pref.	37,740

Professional support services

Librarians	M	49,060
Library techs	HS, A pref, B	26,560
School counselors	M, cert.	47,530
Speech-language pathologists	M, cert., lic.	57,710

Teaching/training

Adult literacy, remedial education, and GED teachers/instructors	B, M pref., lic. or cert. required in most states	43,910
Teacher assistants	A pref.	20,740
Teachers, K-12	B, lic.	43,530 - 48,960
Teachers, special ed., K-12	B, lic., M in most states	46,360 - 48,330

Abbreviations and sources: See page 11.

CAREER EDUCATION

Education is the nation's second largest industry, and retirements will create many openings, according to the *Career Guide to Industries* (<http://www.bls.gov/oco/cg/cgs034.htm>).

Most jobs require higher education, but those in administrative and support services do not.

For more information, go to:

Middle school principals and teachers: <http://www.nmsa.org>

School counselors: <http://www.schoolcounselor.org>

School principals: <http://www.naesp.org> and http://www.nassp.org/s_nassp/index.asp

Science teachers: <http://www.nsta.org> and http://careers.nsta.org/advice_planning.asp

Special education teachers: <http://www.special-ed-careers.org>

Teacher organizations: <http://www.aft.org> and <http://www.nea.org>

PLAN FOR A CAREER IN FINANCE

Keva Sturdevant: Financial Advisor

When Keva M. Sturdevant was a little girl growing up in Toledo, Ohio, she would take her calculator with her to the grocery store and figure the cost of other peoples' purchases.

She laughed at the memory, saying, "I would add it up and then I would say, 'and your total is ...' and present them with a total."

What began as a little girl's fascination has since become a successful career as a financial advisor for Merrill Lynch & Co. There, Sturdevant helps people identify and plan to meet short- and long-term goals for everything from retirement and estate planning to saving for a down payment on a house.

To determine those goals, Sturdevant first has to meet with prospective clients.

"When I sit down with someone for the first time, it's my job to listen," she said. "I ask them questions such as 'What are your priorities? What keeps you up at night?' And when clients start opening up, I find out what's most important to them."

That's when Sturdevant works with them to put a plan in place to achieve their goals. As part of any goal, she always recommends saving for retirement.

"I ask questions about their current standard of living," she explained. "What is their annual salary? Imagine 40 years out. If someone wants to retire when they're 65, then we back into that number ... That's the beauty of numbers being an exact science."

She gives an example. If a woman currently lives on \$50,000 a year and she wants to retire at age 65 and have the same standard of

living for another 20 to 25 years, she would need to save \$1 million. This is where Sturdevant's expertise with numbers comes into play.

Because she advises a number of clients, much of the hard work comes at the beginning when they are working together to create a plan that is achievable. Once that plan is in place, Sturdevant assumes responsibility for oversight and keeping her clients informed. It requires planning and organization. That's why her day actually begins the night before – when she sets her own goals and outlines her schedule for the following day.

Although there are various structures to provide compensation, most financial advisors earn their salaries from fees, commissions or a percentage of the assets invested by their clients. Thus, the more clients financial advisors have, the more money they make. That's why, Sturdevant said, finding clients and building a customer base is one of the most important aspects of being a successful financial advisor.

A genuine desire to help others is vital as well.

"Prior to any investment recommendation, I always ask myself, 'Would I do this for my grandmother or for a family member?'"

It's that kind of integrity that makes her so successful.

– Sandra Moran

"I always have had a fascination with numbers and the beauty of numbers. It's an exact science. I always want to get the exact answer."

– Keva M. Sturdevant



Keva M. Sturdevant

FINANCE

Careers in the Finance career cluster encompass planning, services for financial and investment planning, banking, insurance and business financial management.

A DAY'S WORK

Many people may think that financial advisors have a 9-to-5 job. But Keva Sturdevant's workday is much longer.

Typically, Sturdevant tries to get to the office around 7:30 a.m. The next two hours are what she calls her "quiet time" where she responds to e-mails, catches up on the overnight news and studies the activities of the foreign markets.

From 9:30 a.m. to 1:30 p.m., she typically returns phone calls, continues to respond to e-mails and calls prospective clients. The rest of the day is spent in meetings with clients and overseeing the details of their investment plans. She is often at the office until 6:30 p.m. or later.

Sturdevant doesn't mind the long hours, though, because the personal and financial rewards are very satisfying.

EDUCATION PAYS

If you want to become a financial advisor, here's what you need to know:

Most personal financial advisors must have a bachelor's or a master's degree in finance or business administration. Certified Financial Planner certification and ongoing training to stay abreast of the latest developments are key as well. And those who sell securities and insurance need a license.

But, stressed Keva Sturdevant, success requires more than just education. In addition to strong math, analytical and problem-solving skills, financial advisors have to have the ability to communicate with people from all walks of life in easy-to-understand language.

Many personal financial advisors work for banks, brokerage firms and insurance companies. The money's good, but you must achieve a company's sales goals to stay. For example, "Schwab offers a base salary of \$55,000 to \$90,000, plus commissions, and expects all its financial consultants to make at least \$150,000 a year," according to a *Wall Street Journal* article (<http://www.brokerhunter.com/press/pages/wallstreetsept2005.asp>).

With experience, about 30 percent of financial advisors become self-employed, operating small investment advisory firms, usually in urban areas. And they must find their own customers, because "noncompete agreements" won't allow them to take their brokerage clients with them.

So if entrepreneurship appeals to you and if you have a talent for sales and marketing, you're in business.

For more information about careers as financial analysts or personal financial advisors, go to <http://www.bls.gov/oco/ocos259.htm>.

Jesse Rankin: Bank Teller

Jesse Rankin left a job as a repair cost estimator for an auto body shop to become a teller at Baylake Bank in Sturgeon Bay, Wisconsin – a decision he's never regretted.

Baylake has 27 branches throughout the northeastern and central parts of the state. Rankin's branch is one of the smallest, and he's the only male teller.

Rankin's job is to assist with deposits and withdrawals and open new accounts. He may help customers whose

checkbooks won't balance, but if the problem seems complicated, they're referred to the book-keeping department.

His workday begins at 9 a.m. and ends at 4:30 p.m. Despite the relatively informal atmosphere in the bank, he wears a dress shirt and tie except on "casual Fridays." Benefits such as health insurance are excellent, he says. He especially likes the fact that his work starts fresh every morning, and the activities vary each day.

"I really enjoy working with people," Rankin says. "My greatest



Jesse Rankin

BANKING SKILLS

Although Jesse Rankin has a bachelor's degree in statistics, a high school diploma is the minimum requirement for entry-level positions at the bank where he works.

According to Rankin, other needed on-the-job knowledge, skills and expectations include:

- Accounting
- Computer-related skills, including keyboarding
- In-service training
- Local technical college courses
- Patience
- Sociability

LEARN AND EARN

Learn more about saving for college or a car, buying on credit and even choosing a career at <http://philanthropy.ml.com/ipo/resources/index.html>.

Useful tools for students and adults alike include a new *Guide to Understanding Financial Reports* – important information for future financial advisors and future investors.

satisfaction is making them happy with their banking experiences.”

On the other hand, the occasional upset customer is the greatest challenge of the job. “I just tread lightly with those and treat them with extra-special care.”

People skills are undoubtedly the most important asset for someone who works with the public. “I’m not sure it can be taught,” he says. “It’s just part of the personality of those who are successful in this job.”

–Patty Williamson, Ph.D.

Economic Data

Education Needed • Median Income

Finance and investment planning

Brokerage clerks	HS, exam, lic.	\$ 36,390
Personal financial advisors	B, cert.	66,120
Securities, commodities and financial services sales agents	ST, B pref., cert., lic.	68,500

Business and financial management

Accountants and auditors	B, cert.	54,630
Budget analysts	B, M pref.	61,430
Financial analysts	B, cert.	69,200
Financial managers	B, M pref.	90,970

Banking and related services

Bill and account collectors	OJT, A pref.	13.97/hr.
Data entry and information processing workers	HS, related CTE, software skills	24,690-29,430
Loan officers	ST, B pref.	51,760
Tellers	HS, OJT	22,140
Title examiners, appraisers and investigators	HS, OJT, some college pref.	50,660

Insurance services

Actuaries	B, ST	82,800
Bookkeeping, accounting and auditing clerks	HS, A, OJT, CTE, software skills	30,560
Claims adjusters, appraisers, examiners and investigators	B pref.	50,660
Customer service reps.	HS, computer skills	12.62/hr.
File clerks	HS, OJT	10.69/hr.
Insurance underwriters	B	52,350
Marketing mgrs.	B, M	91,560
Sales agents	ST, B pref.	39,760

Abbreviations and sources: See page 11.

FINANCIAL NEWS

The American Institute of Certified Public Accountants: <http://www.aicpa.org>

(click on “Career Development and Workplace Issues”); also <http://www.startheregoplaces.com>

Robert Half International Inc.: <http://www.nextgenaccountant.com>

ORCHESTRATING GOVERNMENT

Jennifer “J.J.” Davis sees her job as Director of the Office of Management and Budget for the State of Delaware

akin to being an orchestra conductor. She makes sure everyone is working in harmony to “get things done.”

“I have 14 main areas of responsibility,” she explained. “I advise key policymakers in terms of funding decisions and figure out where to put the next dollar ... I manage all the human resource functions in the state, handle health care issues and coordinate land use decisions, maintain state-owned facilities and lead and direct a staff of over 460 people.”

Although that’s what she does today, that’s not how this job began.

In 2002, Delaware Governor Ruth Ann Minner appointed Davis to serve as the state Budget Director – no small job in itself. However, in 2005, the state consolidated the Office of State Personnel, a large portion of the Department of Administrative Services and the Office of the Budget to form the Office of Management and Budget (OMB).

Davis was asked to head the OMB and, as a result, went from just overseeing the budget to also overseeing the following divisions:

- Policy and External Affairs
- Pensions
- Human Resource Management
- Government Support Services
- Benefits and Insurance Administration
- Financial Integration
- International Trade
- Delaware’s Payroll Human Resource Statewide Technology (PHRST)
- Management Services
- Facilities Management
- Budget Development, Planning and Administration

Davis also represents the Executive Branch on various policymaking boards and works with the legislature to initiate fiscal and policy decisions. This includes testifying before various legislative committees.

She admits it was kind of a foregone conclusion that she would end up in government service.

“I was raised by a single father who was in government and passionate about public service,” she said. “I grew up reading *The Washington Post* and *The Wall Street Journal*.”

However, it wasn’t until she graduated after five years of study from Penn State University with both a bachelor’s degree in political science and a master’s degree in



Jennifer “J.J.” Davis

YOUR GOVERNMENT AT WORK

State and local governments provide their constituents with vital services, such as transportation, public safety, health care, education, utilities and courts. And, excluding education and hospitals, together they employ about 8 million workers, 70 percent of whom work at the state level, according to the Bureau of Labor Statistics.



policy analysis that she got her shot. She was working for the Environmental Protection Agency when one of her co-workers suggested she meet the innovative “young, hip budget director for the State of Delaware.”

Not only was Davis impressed with his vision, but she quickly became determined that she wanted to work for him, which she did, as a fiscal analyst. In this capacity, she was responsible for development and analysis of public policy initiatives and appropriation levels for several state agencies and for related recommendations.

It was great preparation for her current job, which she describes as “a mixture of responding to my 14 direct reports (the number of people who report to her directly), managing the operations of a large organization and interacting with the media, legislators, elected officials, key government staff and average citizens.”

And no day is the same.

“This office is a big machine – a big government operation,” she said. “We issue more than 380,000 pay advices (paychecks) every two weeks, provide daily customer service and work within the external and the internal world.”

But the thing she likes most is that every day she makes a difference. “I have the ability to create programs that change people’s lives for the better,” she said. “I love working with my team and feel very fortunate to have a job where I can really make a difference. That has always been my ultimate goal.”

– Sandra Moran

GOVERNMENT JOBS AREN'T JUST FOR POLITICIANS

Although people in political positions get a lot of media attention, millions more do the work of government. In fact, about 2 million people, in careers that span every career cluster, are federal government employees, according to the Bureau of Labor Statistics (<http://www.bls.gov/oco/cg/cgs041.htm>). Many of the following federal jobs are available in your state and locality as well:

Accountants, auditors
Aircraft mechanics,
service technicians
Biological scientists
Business operations specialists
Compliance officers
Computer specialists
Conservation scientists, foresters
Construction, extraction
occupations
Correctional officers, jailers
Detectives, criminal investigators
Drafters, engineering and
mapping technicians
Electrical and electronic
equipment mechanics, installers
and repairers
Engineers and engineering
managers
Environmental scientists
and geoscientists
Forest and conservation technicians
Inspectors, testers, sorters,
samplers, weighers
Installation, maintenance and
repair occupations
Judges, magistrates, lawyers, law
clerks and other judicial workers
Licensed practical and licensed
vocational nurses
Management analysts
Management, business and
financial occupations
Natural sciences managers
Nursing aides, orderlies, attendants
Office and administrative
support occupations
Physicians and surgeons

Police and sheriff's patrol officers
Production occupations
Professional and
related occupations
Purchasing agents
Registered nurses
Secretaries
Service occupations
Tax examiners, collectors and
revenue agents
Transportation and material
moving occupations

GOVERNMENT & PUBLIC ADMINISTRATION

Careers in the Government & Public Administration career cluster involve executing governmental functions at the local, state and federal levels.

LOOKING FOR A SOUGHT-AFTER GOVERNMENT JOB?

Many individual federal, state, county and city government agencies have Web sites that list job opportunities. Also search the following federal government Web sites for jobs and internships available for students:

- USA Jobs: <http://www.usajobs.opm.gov>.
- Student jobs with the federal government: <http://www.studentjobs.gov>.
- The federal government's "e-Scholar" programs: <http://www.studentjobs.gov/e-scholar.asp>.

Which government job would you like?

What are the education and experience requirements?

How much does the job pay?

Where else, besides government, can you work?

Government Data

Education Needed • Median Income

Governance

Governors	degree pref., exp.	\$ 124,398, average
President, U.S.	degree pref., exp.	400,000
Vice President, U.S.	degree pref., exp.	212,100
Presidential policy assistants	degree, exp.	165,200

National security

Airmen, privates first class (E-3)	HS, other req., ST	18,410
Cyberspace security dir.	degree, exp.	109,300
FBI agents	B, ST	53,260
National security assistants	degree, exp.	62,100 - 165,200

Foreign service

Administrative services mgrs.	B or higher, exp.	67,690
Foreign affairs officers	B, tests, FT	42,314 - 62,140 +
Information mgt. specialist	computer-related B, A	36,762 - 60,389

Planning

Bookkeeping, accounting and auditing clerks	HS, CTE, A	30,560
Computer support specialists and systems administrators	A	41,470
Urban, regional planners	M	50,630

Revenue and taxation

Appraisers and assessors of real estate	CTE or higher	44,460
Financial analysts	B	66,590
Tax examiners, collectors, revenue agents, federal	B	45,620

Regulation

Construction building inspectors	ST, exp., cert., related OJT, CTE, ST, exp.	46,570
Equal opportunity reps. and officers	B	47,050

Public management and administration

City mgrs.	M	92,799
Court, municipal, license clerks	HS, CTE, A	30,980
General and operations mgrs.	B or higher pref., exp.	85,230

Abbreviations and sources: See page 11. **Additional sources:** *National Journal*, <http://nationaljournal.com/about/njweekly/stories/2007/whsalaries.htm>; *Careers Representing America*, <http://www.Careers.state.gov/officer>; *Stateline.org*, <http://www.stateline.org/live/details/story?contentId=207914>

DOES A HEALTH CAREER AWAIT YOU?

Rafael Sanchez: Dental Hygienist



Rafael Sanchez

“I really like to help people. That’s what keeps me going. I have a passion about it.”

– Rafael Sanchez

Rafael Sanchez still remembers the day he realized what he wanted to do with his life.

“In the Dominican Republic, where I am from, there was a dentist – an American – who came for two to three weeks each year to provide dental services to all the people,” Sanchez said. “He would bring all the equipment ... and work on people. I learned from him, and it’s how I knew I wanted to become a dentist.”

Although his schooling and certification in dentistry didn’t transfer when Sanchez and his wife moved to the United States, his passion to help others did. That’s why he entered and, in 2001, graduated from the dental hygiene program at the Community College

of Rhode Island.

Dental hygienists examine teeth and gums, record the presence of diseases or abnormalities, remove soft and hard deposits from teeth, take and develop dental X-rays and apply cavity-preventive fluorides and sealants. A major part of the job is also to teach patients how to practice good oral hygiene. It’s that role that Sanchez enjoys most.

Sanchez is one of a growing number of men who work in a field that historically has been dominated by women. He attributes some of the change to the fact that as more men enter the field, they’re sharing their experiences with other men. And there are more jobs than hygienists, the pay is excellent, and the schedule is

(continued)

HEALTH SCIENCE

The Health Science career cluster involves planning, managing, and providing therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

flexible. Sanchez, for example, works Tuesday through Friday.

Although he is planning to take the examinations necessary to become a dentist in the U.S., Sanchez very much enjoys his current role of educating and helping people lead healthier lives.

“When you improve oral health, you’re improving the body’s health,” he said. “As a dental hygienist, you’re helping to save peoples’ lives.” – *Sandra Moran*

LEARN AND EARN

To become a dental hygienist, you’ll need a minimum of an associate degree or certificate in dental hygiene from an accredited school, plus a state license. A bachelor’s or master’s degree usually is required for research, teaching or clinical practice in public or school health programs.

Medical or clinical laboratory technicians generally have either an associate degree from a community college or a certificate from a hospital, a vocational or technical school, or the Armed Forces.

Registered nurses need at least an associate of science degree – a degree that requires at least two years of college instruction. Many hospitals, though, require a bachelor’s or master’s degree. Registered nurses also take a regular program of continuing education courses.

Median hourly earnings of dental hygienists were \$30.19 in May 2006. Median annual earnings of medical and clinical laboratory technicians were \$32,840 in May 2006. Median annual earnings of registered nurses were \$57,280 in May 2006. (<http://www.bls.gov>)

Kristen Broomall: Histotechnician

Kristen Broomall is a histotechnician at A.I. duPont Hospital for Children in Wilmington, Delaware. This job involves preparing tissue samples for diagnosis or research. However, Broomall’s primary responsibility is that of a research technician.

“When a research investigator brings us a project requiring histology, my coworkers and I figure out how to make our part of the project work. Many times what we have to do with the tissue may not have been done before.”

Broomall works under the supervision of the lab’s director and with other histotechnicians and research investigators. In her job, she uses several types of equipment.

Along with a personal computer, she operates lab equipment such as a specialized microscope that uses a laser to cut specific cells out of a tissue sample. The cells are collected and used for later analysis. She also operates an automated immunostainer, which creates stained slides for later analysis. Such tasks require slow, precise work.

“It’s a challenge when I cannot get a new staining procedure to work correctly,” she says. “Then my supervisor reminds me that is why it’s called research! But I really enjoy getting something new to work that I have not done before. I also like knowing that my work benefits the patients in the hospital.”

Broomall chose this specialty because she wanted to work in the medical field without having direct patient contact.

“I especially like working in research because I find it very interesting and get to use my problem-solving skills,” she says. “Many people say that there is an art to histology. I find that

dexterity, curiosity and attention to detail are important.”

To qualify for her job, Broomall earned an associate degree in histotechnology at Delaware Technical and Community College and passed a national certification exam. She also encourages others to consider a career in histology.

“This is a very diverse field with many different opportunities, including working in hospitals, research, or pharmaceutical companies,” she says. “As histotechnology continues to grow, we will need more and more qualified people to fill the positions.” – *Mark Rowb*



David Simmons: Nurse

David E. Simmons Jr. discovered early that he wanted to be a nurse, although the career wasn't a traditional one for men at the time.

"We had a career day at my high school, and the director of nursing from a community college came to speak with the group," he said. "I thought it was an interesting topic to explore and requested to go hear her talk."

The decision set the course of his professional life. He applied to Germanna Community College in Fredericksburg, Virginia, and was not only accepted, but also given a scholarship. He was one of three males in the program and the only one to graduate from the two-year program.

While still in school, Simmons worked at Mary Washington Hospital. He enjoyed the work, but was frustrated that, more often than not, he was mistaken for an attendant rather than a nurse.

Eventually, he went to work at the University of Virginia Medical Center where he worked in the urology unit as a staff nurse and assistant head nurse. Then he transferred to the medical-surgical unit where he was head nurse and then to the acute care dialysis facility. He worked there in a

number of capacities within the next 21 years of his 35-year run at the facility.

During this time, he earned both a bachelor's and a master's degree in nursing studies. Today, he is a clinician and clinical director of the Nephrology Clinic at the University of Virginia Health System. Nephrology deals with diagnosis and treatment of acute and chronic kidney diseases.

Now, much of the time, he works with outpatients who may arrive with a variety of issues. As a nurse, Simmons has to be flexible, using his critical-thinking and assessment skills.

Although Simmons works specifically in the field of nephrology, there are a variety of jobs within the nursing field – jobs in some of the medical specialties, jobs teaching or more hands-on work in a hospital or doctor's office.

"Going through nursing school is no cakewalk," Simmons said. But he finds nursing to be an incredibly fulfilling career.

– Sandra Moran

NURSING DUTIES

David E. Simmons Jr. has a variety of duties as a clinician and clinical director of the Nephrology Clinic at the University of Virginia Health System. On the job, you might find him ...

- ✓ Performing physical assessments (weight, height and blood pressure measurements)
- ✓ Assessing patients for changes in their body and/or condition
- ✓ Assisting in performing kidney biopsies
- ✓ Inserting IVs, using a small catheter to inject medications into a blood vessel
- ✓ Evaluating urine specimens for blood, protein and infections
- ✓ Performing electrocardiograms to measure the electrical activity of the heart
- ✓ Educating patients about invasive procedures, and
- ✓ Trying to put patients at ease and relieve their anxiety

David E. Simmons Jr.



CONSIDER A HEALTH CAREER

If you are interested in finding a satisfying, well-paying job, consider a career in the health industry. Here's why:

- As the largest industry in 2006, health care provided 14 million jobs. That's more than 13 million jobs for wage and salary workers and more than 400,000 jobs for people who are self-employed, according to the Career Guide to Industries.
- Health care will generate three million new wage and salary jobs between 2006 and 2016, more than any other industry.
- Most workers have jobs that require fewer than four years of college education.

Go to <http://www.bls.gov/oco/cg/cgs035.htm> for more information.



HEALTH RESEARCH

Dental hygienists: <http://www.adha.org/aboutadha/index.html>

Dentists: <http://www.ada.org>

Emergency medical technicians: <http://www.naemt.org>

Health information managers: <http://www.ahima.org/careers/intro.asp>

Medical technologists: <http://www.amt1.com>

Nurses: <http://www.choosenursing.com> and http://www.nсна.org/career/ultimate_adventure.asp

Pharmacists: <http://www.aphanet.org>, <http://www.ashp.org> and <http://www.nacds.org>

Physical therapists: <http://www.apta.org>

Physicians: <http://www.amaassn.org/ama/pub/category/10481.html>

Radiologic technologists: <http://www.asrt.org>

Respiratory therapists: <http://www.aarc.org>

Explore Health Careers

Education Needed • Median Income

Therapeutic services

Dental assistants	OJT, cert, A, lic.	\$14.53/hr.
Dentists	DDM/DDS, lic.	136,960
Medical assistants	FT, A	26,290
Registered nurses	A, B, lic.	57,280
Respiratory therapists	A, lic.	47,420
Physicians	MD, lic., intern-ship, residency	137,119-321,686

Diagnostic services

Diagnostic medical sonographer, including magnetic resonance technologist	CTE, A, B	57,160
Clinical laboratory technologists and techs	B	49,700
Radiologic technologists	FT, A, B, lic.	42,170

Health informatics

Receptionists and information clerks	HS, CTE, A	11.01/hr.
Health information techs	A pref.	28,030
Medical and health service managers	M pref., exp.	73,340
Medical secretaries	CTE, A	13.51/hr.

Support services

Biomedical equipment techs	A, OJT, cert.	40,580
Mechanical engineers	B	73,990
Occupational health and safety specialists and techs	B, exp.	54,920
Orthotists, prosthetists	FT, CTE, B, higher	58,980

Biotechnology research and development

Biochemists	D	68,760
Biological techs	A pref.	17.17/hr.
Laboratory technologists	B	49,700
Science techs, biological and chemical	A	17.17-18.87/hr.

Abbreviations and sources: See page 11.

Each day, more than 960 people go to work at more than 210 different jobs on both of the 83,000-ton Disney Cruise Line ships, Disney Magic and Disney Wonder. Some navigate the ships, some entertain guests by performing on stage and some make sure that the food and service are top of the line.

Crew members have very different jobs, but one goal they all share is the desire to ensure that every passenger has an amazing trip. It's a mission that they take to heart.

And, if you want a position in an industry that has openings in a wide variety of career paths, look at hospitality and tourism. Jobs are as close as the nearest hotel or restaurant, health care or other food service system, theme park or ballpark ... or wherever food, travel and fun come together. And entry-level jobs often lead to great careers.



CAREER PASSPORT

Lisa Picket

JOB TITLE: Assistant Food Manager/Hotel Director in Training

EDUCATION: Travel and tourism diploma; bachelor's in business management

JOB DUTIES: Hotel directors are responsible for the administration and operation of the shipboard hotel departments. Management

training includes acting as an assistant food manager in our food and beverage operations. As an assistant food manager, I support the food manager in leading a team of 120 cooks and chefs. Our team provides all meals on board for our 2,700 guests and almost 1,000 crew, including midnight snacks, 24-hour room service and special buffets.

CAREER JOURNEY: I completed a year in the Walt Disney World International Program as a Canadian representative in the Canada Pavilion at the Epcot theme park.

“Be open to feedback and learn from it. Be flexible, and be yourself.”

— Lisa Picket

It was a fantastic year, and I learned so much. From this experience, I knew that I wanted to stay in the hospitality industry. I decided to apply for a cruise line position.

I began my life at sea as a junior purser (guest server/hostess) with Carnival Cruise Line and then came to Disney Cruise Line.

AVERAGE DAY: Truly, there is no such thing as an average day on the job ... First thing in the morning I create my to-do list for the day, and then I make my rounds and check e-mails. A large part of my job is to provide feedback to crew members and leaders to further develop their skills and assist in their training. Following up on a process or consistency between galleys, assisting a guest with a challenge or

(continued)

HOSPITALITY & TOURISM

The Hospitality & Tourism career cluster encompasses the management, marketing and operations of restaurants and other food services, lodging, attractions, recreation events and travel-related services.



Lisa Picket

rescheduling opening hours or food offerings are other components of my job.

SKILLS NEEDED: I use math daily to calculate food costs, evaluate a current budget status and ensure that group functions are charged correctly ... I also speak a second

language, French, and this helps to break down communication barriers.

OTHERS YOU WORK WITH: I work with professionals including captains, chief engineers, security officers, executive chefs, cruise directors, information technology (IT) specialists, human resources (HR)

managers, spa managers, merchandise managers, photo managers, manager of guest services, manager of youth activities, stage managers, entertainers, port agents and operation managers.



CRUISE JOBS

Get a complete look at jobs available with Disney Cruise Line at <http://www.dcljobs.com>. Or, if you want to hear first-hand descriptions from current crew members, go to <http://www.dcljobs.com/crewlife.asp>.

Don Harrison

JOB TITLE: Information Technical Specialist Officer

EDUCATION: Bachelor's in computer science

JOB DUTIES: I work aboard the Disney Magic and Disney Wonder cruise ships. My job responsibilities include programming all of the computers, WiFi access points and point-of-sale (POS) terminals and maintaining the satellites

“Stay focused if you decide to enter the IT world. Map your course, check it weekly to make sure you are on the right path and learn as much as you can. Don't ever give up on any profession that piques your interest. There are no shortcuts to any place worth going; it takes dedication and hard work to achieve your goals.”

— Don Harrison

we have onboard. I am also responsible for data backups and database indexing.

CAREER JOURNEY: After several years of working in computers, I set my sights on Walt Disney World Information Technology. I was hired as an IT analyst working in POS technology and spent a few years developing and implementing some of the latest in technology for

POS. Then I transferred to the Disney Cruise Line shoreside team, where I worked with the IT officers onboard the ships, assisting them with their day-to-day needs in programming and implementation of the computers onboard the ships. I always wanted to travel, so when an opening became available, I transferred to the ships.

AVERAGE DAY: An average day on the job starts with a server check, which is a procedure that we perform to ensure that all of our applications are running properly. We check backup data jobs. We constantly communicate with our shoreside partners at Disney Cruise Line via e-mail ... On the days we are at dock at the different port locations, we set up the fiber cables for transmission from the shore to the ship. We are also responsible for all the computers on Disney's private island, Castaway Cay.

SKILLS NEEDED: Typing and speech have become very valuable in my job. Typing helps me daily when using a computer. Speaking skills allow me to successfully and comfortably communicate with fellow cast members, managers and occasionally guests.

OTHERS YOU WORK WITH: I work with the captain, hotel director, cruise director, chief engineer, HR manager and the guest service manager.

Don Harrison



Brent Davies

Brent Davies

JOB TITLE: Cruise Director

EDUCATION: Bachelor's in sports science

JOB DUTIES: I am in charge of all shipboard entertainment, and I ensure that guests are always having fun. I make sure that they enjoy the highest-quality entertainment and shore excursions and am responsible for all crew

“Gain broad experience in a cross section of industries.

Be passionate about entertainment and perfect the art of public speaking.”

– Brent Davies

members in the entertainment, shore excursions and youth activities departments. I also act as the master of ceremonies for the cruise.

CAREER JOURNEY: I was a facilitator for outdoor education courses through national parks in Australia. I then moved into resorts to run the sports and activity programs. I even had a stint at a water park as a supervisor. Next, I worked in health retreats in the rain forests of northern Australia. From there I moved into corporate team building. I have always had a love of travel, the ocean and meeting people, so the cruise business seemed like a great opportunity to integrate my personal interests into my career.

Career Destinations

Education Needed • Median Income

Restaurant and food/beverage services

Chefs	HS, CTE, A, B	\$ 34,370
Food service mgrs.	Exp., A, B	43,020
Food servers	OJT	7.14/hr., tips inc.

Lodging

Hotel, motel, resort desk clerks	HS, OJT, cert.	18,460
Lodging mgrs.	Cert., A, B pref.	42,320
Maintenance, repair workers	HS, OJT, CTE	11.76/hr.

Travel and tourism

Marketing mgrs.	B, M, exp.	98,720
Reservation, transportation ticket agents, travel clerks	HS, OJT, FT	28,540
Tour guides	HS, OJT, FT, foreign language sometimes req.	20,420

Recreation, amusements and attractions

Advertising, promotion mgrs.	B, exp.	73,060
Computer scientists, database administrators	B	64,600
Customer service reps.	HS, CTE, OJT, A	13.62/hr.
Recreation workers	HS, OJT, FT, A pref.	18,810
Security guards	FT, lic.	21,530

Abbreviations and sources: See page 11.

AVERAGE DAY: There is never an average day on the ship, and that's what I love. In addition to working with guests and crew members, solving day-to-day challenges and executing the great entertainment offered each day, I must also be prepared to change schedules at a moment's notice. There is always office work to complete, meetings and socializing with the guests – the best part.

SKILLS NEEDED: I use presentation skills for public speaking, writing skills for scripts, math for budgets and, finally, geography. Taking advantage of all opportunities that were presented to me and being involved in the school community were very instrumental.

OTHERS YOU WORK WITH: I am lucky to work with professionals from all aspects of the maritime industry, from veteran captains to chief

engineers to professionals in the hotel industry. Additionally, I work with talented individuals and teams across the broad spectrum including entertainment for Disney Cruise Line and the Walt Disney Company, producers, directors, choreographers, technical managers, stage managers and the youth activities team.

– Sandra Moran

EXPLORING CAREERS

American Hotel & Lodging Educational Institute:

<http://www.ei-ahla.org>; click on “High School Program.”

National Restaurant Association:

<http://www.restaurant.org>

National Restaurant Association Educational Foundation:

<http://nraef.org>

“Companies hire me to help their talent manage the challenges that are represented in careers so that they can be effective in their relationships, in the work environment and in their lives.”

– Rosanna M. Durruthy



Rosanna M. Durruthy

LIFE LESSONS

Talent strategist Rosanna M. Durruthy lives her life by the following rules:

- Be impeccable with your word.
- Don't take anything personally.
- Don't make assumptions.
- Always do your best.

They're lessons Durruthy also works to instill in her clients as she helps them realize their aspirations and make a difference in their lives. She explains her career as a life coach like this:

“I help individuals, many of them rising executives, realize their full potential at work and in life, regardless of the systemic barriers encountered in any environment,” she said.

The result is a more confident, committed and productive workforce. And being productive is

a skill at which Durruthy is enormously accomplished.

The product of the New York City public school system, Durruthy graduated from high school when she was 16 and immediately entered Harvard University. However, the divorce of her parents necessitated taking a leave of absence from college so she could work to help support the family.

“Suddenly, my life plans were different,” she said. “I couldn't rely on formal education to prepare for my future because I had to go to work to provide for myself and help my mom. My first lesson was that even when you plan, plans can change.”

Over the next six years, Durruthy worked as a commission-based advertising salesperson, a placement specialist in a personnel agency, a marketing representative at a technology training and consulting firm, and for a

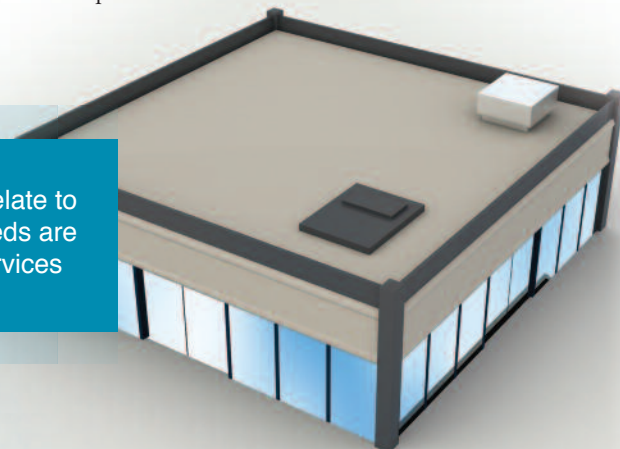
THINKING ABOUT ENTREPRENEURSHIP?

Several interviewees in this publication are entrepreneurs, including Joe France, page 17; Tracy Pikhart, page 24; and Melissa Minchala, page 45.

Are you thinking about starting a business of your own? Do some research first at <http://www.sba.gov/services/training/index.html> and <http://online.wsj.com/public/us> (click on the “Small Business” tab). Also take some related courses at a nearby community college, and find an accountant and a lawyer who specialize in small business.

HUMAN SERVICES

Career pathways that relate to families and human needs are found in the Human Services career cluster.



government-funded, not-for-profit organization that provided job training and placement services to economically disadvantaged individuals.

"I learned a series of important lessons through this period," she said. "People matter a lot, and even those you do not know well will help you get ahead when they trust you."

The experience and life lessons added up to what became an 18-year corporate career in the field of talent management for companies like Citibank, Merrill Lynch, Blockbuster, Seagram and Vivendi. And those experiences are what lead her to start AEQUUS Group, LLC.

As a talent strategist, Durruthy coaches clients and provides support and "follow-ups," which may include interviews with the clients' managers and colleagues to obtain feedback and input on a client's progress.

She also leads corporate projects that include planning and facilitating group meetings and delivering management-level workshops. She periodically collaborates with other consultants to develop and deliver leading-edge practices and approaches.

It is, she admits, an incredibly fulfilling career. And even though she never was able to return to Harvard University to complete her degree, she believes she ended up where she was supposed to. She attributes it to her outlook, her desire to learn and grow and good ol' fashioned hard work.

– Sandra Moran

FOLLOW YOUR DREAMS

"Be curious, be positive and be committed to doing things well," Rosanna M. Durruthy said when asked what advice she had for students. "Appreciate the different ways success is created and find your own style ... Don't let fear stop you from trying, and never let someone convince you that your dreams are impossible."

CAREER WISDOM

"You shouldn't be too narrow-minded as you set out on your career path. It's important to discover things you like to do and know your strengths, but then explore all of the options available to you ...

Seek mentors and role models along the way. They will be a tremendous help to you. Finding someone you admire and trust as you set forth on your path to career exploration will be invaluable for years to come."

– Jennifer Floren, CEO, Experience, Inc., Boston, Massachusetts

WISE IDEA

Take advantage of Jennifer Floren's career advice by creating two lists on a separate sheet of paper using the model below. The first is a "job contact" list – a list of part-time or volunteer jobs and opportunities to do some "informational interviewing" – the term for visiting with people who have a job you might like or some helpful contacts in the field. The second is a list of mentors and role models who can provide a great job network and references for you someday.

"JOB CONTACT" INFORMATION

Name _____

Title _____

Company name _____

Address _____

City, State ZIP _____

Phone number _____

E-mail address _____

URL _____

MENTOR INFORMATION

Name _____

Title _____

Company name _____

Address _____

City, State ZIP _____

Phone number _____

E-mail address _____

URL _____

CAREERS IN SERVICE

American Counseling Association:

<http://www.counseling.org>

American Psychological Association:

<http://www.apa.org>

American Association for Marriage and Family Therapy: http://www.aamft.org/index_nm.asp

American Mental Health Counselors Association: <http://www.amhca.org>

International Coach Federation:

<http://www.coachfederation.org/ICF>

National Association for the Education of Young Children: <http://www.naeyc.org>

National Organization for Human Services: <http://www.nationalhuman-services.org>



Helpful Occupations
Education Needed • Median Income

Early childhood development and services

Child-care assistants, workers	HS pref.	\$ 17,630
Directors, preschool and childcare center/programs	National cert., B	37,740
Preschool teachers	B, lic.	22,680
School counselors, elementary	M, cert., lic.	53,750
Teacher assistants, paraprofessionals	A pref.	20,740

Counseling and mental health services

Educational, vocational and school counselors	M, cert., lic.	47,530
Marriage and family therapists	M, cert., lic.	43,210
Mental health counselors	M, cert., lic.	34,580
Psychologists	D	59,490
Rehabilitation counselors	M, cert., lic.	29,200
Sociologists	D	60,290
Substance abuse and behavioral disorder counselors	M, cert., lic.	34,040

Family and community services

Fitness workers, personal trainers	HS, cert.	25,910
Nursing, psychiatric and home health aides	OJT, cert.	8.81 - 11.49/hr.
Program directors	B, M, exp.	56,310
Recreation workers	HS or higher	20,470
Social and human services assistants	cert., A	25,580

Personal care services

Barbers	CTE, lic.	23,150
Funeral directors	FT, app., lic.	49,620
Personal and home care aides	OJT	17,770

Consumer services

Customer service representatives	HS, A, B	28,330
Employment, recruitment and placement specialists	B pref.	42,420
Insurance sales agents	B, lic.	43,870
Loan counselors	exp., B	35,790
Real estate agents	FT, exam, lic.	39,760

Abbreviations and sources: See page 11.

Whether you want to create your own business or find your place in the business world, opportunities abound in information technology.

INFORMATION TECHNOLOGY PAYS

It's Melissa Minchala's Business

Although today she's recognized as one of New Jersey's premiere information technology gurus, Melissa Minchala's career beginnings were far from glamorous.

The oldest of four children born to educated, successful, first-generation Hispanic Americans, Minchala was instilled with a strong work ethic and knew that if she wanted a career, she would need to create it. So she applied and was accepted to Brooklyn Technical High School. Once graduated, she went to work as a receptionist to save money for her postsecondary education. And it was here, unexpectedly, that her actual career began.

The company for which Minchala worked was using a new, expensive computer program called Excel. Minchala not only taught herself to use it, but she figured out how the program actually worked. And, just like that, a career in computers was born. Minchala enrolled in technology school and became certified as a Microsoft Certified Systems Engineer (MCSE).

Today, after many years of working for other organizations and consulting, Minchala and her husband own and operate DataVelocity, a company that helps small businesses create and maintain their technology.


She believes they created their company at the right time because

small businesses don't need a full-time position dedicated to keeping their technology system running.

In addition to helping run the company, Minchala works alongside her staff of five. When asked to describe an average day, however, she had to make it clear that her two hats come with two very different job descriptions.

"When I was working as a tech in the corporate world, I would generally get in at 9 a.m. and not get out until 1 or 2 in the morning ... You're always on call if you're a tech. You always have a cell, and someone is sending you a message – or the system is sending you updates.

(continued)



"A huge part of what I do is troubleshooting. You have to have a mastery of linear thinking ... breaking down the formulas."

Melissa Minchala

INFORMATION TECHNOLOGY

The Information Technology career cluster is related to building linkages in the IT occupations framework for the entry level, technical and professional careers related to the design, development, support and management of hardware, software, multimedia and systems integration services.

“Being a business owner is very different from working as a tech,” she explained.

As a business owner and technician, Minchala does a lot of infrastructure planning and some system implementation, working with telecommunications people, professionals who handle the wiring of the system and Web designers. She also networks, making contacts, prospecting for new clients and handling the

marketing of the company.

Still, though, her heart lies in understanding the intricacies of the systems themselves.

“Making the systems work carries a personal triumph certainly, but helping a client out of the computer situation they were in is something you both can revel in. And that gratitude you feel can carry you forward for the rest of the day.”

– Sandra Moran

Lifelong Learning Leads to a Top Job

The year 1983 was significant in the life of Wayne Lewis for two reasons. It was the year he graduated from high school, and it was the year that the IBM personal computer entered the commercial market.

Both of these seemingly unrelated events set Lewis on a career path at which he has spent his entire adult life excelling.

Wayne Lewis

He received a scholarship to go to engineering school at TESST College of Technology in Hyattsville, Maryland, to become an engineering technician. After completing the two-year program, he went to work as a technician doing hardware repair and fixing personal computers, data terminals and printers. He enjoyed it at first, but as time went by, Lewis found himself more and more interested in software development instead of hardware. So, he made a bold move. He took some college

“People who really are movers and shakers in the IT field are the ones that wonder why and how to make it better. Today’s kids consume technology, but most of them don’t know why or how it works. To really do well in this field, you really have to have a curious mind and the patience to see things through.”

– Wayne Lewis

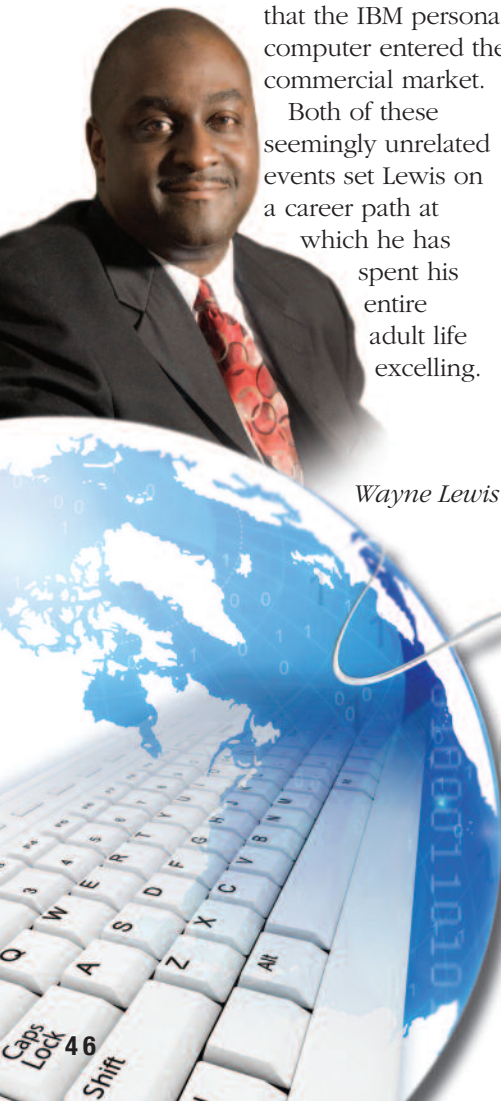
INFORMATION TECHNOLOGY – IT’S A FAST-GROWING FIELD

Interested in a career in information technology and computing? Chances are you’ll find an employer who’s interested in you – if you’re prepared. The computer systems design and services industry is expected to experience rapid growth, adding more than 489,000 jobs between 2006 and 2016, according to the Bureau of Labor Statistics. And professional and related workers will enjoy the best job prospects, reflecting continuing demand for higher-level skills needed to keep up with changes in technology.

classes on software programming and learned how to write programs.

“I found out I really liked computer programming and the software side of things better than I liked the hardware stuff,” he said. “I also felt like the hardware environment was going to change. At the time, we were still doing component-level repair and replacing resistors and capacitors on printed circuit boards. Today you don’t do any of that. The particular job I was in I knew was probably going to end in the next 10 to 15 years ... So I began to learn more and more about software development.”

He was able to put those new skills to work in 1989 when he went to work at EDS, a global technology services company that helps businesses and governments outsource their information technology needs. After a series of positions that included work as a software developer, systems engineer and systems architect, Lewis now serves as the EDS Chief Technology Officer for the Department of Justice’s portfolio. In



this position, he has managerial oversight of information technology projects – generally long-term projects that require making high-level decisions to implement specific plans or strategies designed to meet the needs of his client.

“I’ve sort of graduated from regular day-to-day engineering to more of an architectural enterprise view,” he explained. “I help drive the strategic direction of government clients – trying to make sure they are using the right technology to meet their business needs. And of course we try to identify areas of technology that can benefit them by either saving them money or providing a better environment for them to do things faster.”

Lewis said most of his day is spent meeting with prospective information technology vendors or learning about various forms of technology that can or will benefit his government clients. He also does a lot of independent research on the Internet or reads trade publications in order to better advise his clients.

It’s a detail-oriented job that requires patience and the ability to deal with people. He recommends that anyone who is considering a career in software development, engineering or architecture, refine these skills – particularly patience and curiosity. – *Sandra Moran*

Technical Data		
<i>Education Needed • Median Income</i>		
Network systems		
Computer security specialist	B	\$ 62,130
Computer scientist and database administrators	B	93,950
Network systems, data communication analysts	B	64,600
Network, computer systems administrators	B pref.	62,130
Operations research analysts	M pref.	64,650
Information support and services		
Computer support specialists and systems administrators	cert. A, B pref.	41,470
Computer systems analysts	B pref.	69,760
Customer service representatives	HS, computer skills	13.62/hr.
Data entry and information processing workers	HS, computer software skills	24,690
Electronic home entertainment equipment installers and repairers	HS, CTE, some college	29,980
Technical writers, computer-related	B, technical knowledge	53,490
Interactive media		
Computer, information systems mgrs.	B, M pref.	101,580
Multimedia artists, animators	B pref.	51,350
Web developers, designers, Webmasters	CTE, A, graphic skills	68,570
Programming and software development		
Computer hardware engineers	B	88,470
Computer software engineers, applications	B	79,780
Computer systems software engineers	B	85,370
Computer programmers	cert., A, B	65,510
Abbreviations and sources: See page 11.		

EXPLORE INFORMATION TECHNOLOGY

Community colleges and career-technical education programs offer hands-on information technology training opportunities and certification. These programs are similar to the kinds described at <http://www.microsoft.com/learning/mcp/default.aspx> and <http://certification.comptia.org>.

Knowledge of English and math, including trigonometry, are important as well for anyone who wants to enter the field. There are proposals to write, presentations to give and a lot of team-building to do.

For more information about IT careers, see <http://www.bls.gov/oco/cg/cgs033.htm> and <http://www.careervoyages.gov/infotech-main.cfm>.

CONSIDER LAW & PUBLIC SAFETY

With a career in Law, Public Safety, Corrections & Security, you can make an important contribution to your own future and to the safety of your community.

Consider that, by 2016, jobs for dispatchers are projected to grow by 14 percent; EMTs and paramedics, 19 percent; fire fighters, 12 percent; legal secretaries, 17 percent; legal assistants and paralegals, 22 percent; police and patrol officers, 11 percent; and security guards, 17 percent.

Those are just a few high-paying, fast-growing jobs in this field. You also may want to consider working for a federal agency, such as an agency of the U.S. Department of Homeland Security. Some of those agencies are the Federal Emergency Management Agency (FEMA), the U.S. Customs and Border Protection agency, the U.S. Coast Guard, the U.S. Transportation Security Administration and others.

For more information, go to <http://www.usajobs.gov>, an agency Web site, and law and public safety agencies in your state or community.

LAW, PUBLIC SAFETY, CORRECTIONS & SECURITY

The Law, Public Safety, Corrections & Security career cluster is related to planning, managing and providing legal, public safety and protective services and homeland security, including professional and technical support services.

DOUG REYNOLDS: DIRECTOR OF SECURITY

Doug Reynolds' job appears simple – to ensure the “safety and security of guests, tenants and employees” at Bloomington, Minnesota’s Mall of America. But, as Director of Security for the nation’s largest retail/entertainment complex and its 40 million yearly visitors, Reynolds’ job is, in fact, much like being police chief of a small city.

“There are many similarities between what I do in security for Mall of America and what law enforcement employees do,” he explained. “We both have a main objective of enforcing rules and standards of conduct ... It is definitely a challenge, and it is this challenge that I find to be my source of motivation. Every day, my job is new and exciting.”

In his role, Reynolds oversees a staff of about 100 that includes patrol officers, dispatchers, trainers, K-9 handlers and administrative workers. His department also works with the Bloomington Police Department, which maintains a station on-site at Mall of America.

Reynolds also works with the public relations team to make sure that messages to guests, staff and the media are consistent. And he works with the events, marketing, housekeeping and operations departments as well.

“While I can honestly say there is no such thing as an average day, there are things that are done everyday,” he said. “I usually start my day off by answering about 50 e-mails. I then proceed to make rounds, or take laps, up in the mall to make sure that everything is going well. Then I’ll come

downstairs to my office and answer voicemails before taking another lap upstairs ensuring the safety of everyone at the mall. Sometime within those tasks, I always check in with my co-workers in mall management to see how things are going on their end and/or if they have any concerns they would like me to address.”

Reynolds’ advice to job seekers? “If you are choosing this career because you truly enjoy interacting with the public on a daily basis and are concerned about the safety and well-being of others, then you are choosing this career for the right reasons.” – *Sandra Moran*



Doug Reynolds



MURDER CASES, LAWSUITS AND MORE

Paralegal Anita Haworth takes a deep breath when asked to describe her job. And with an equally deep exhale, she says, “I do anything and everything.”

As a senior litigation paralegal for Campbell, Kyle, Proffitt, LLP in Carmel, Indiana, Haworth works for attorneys who practice family law, criminal defense, real estate/zoning, personal injury, federal court litigation, construction and contract litigation. She has worked on everything from murder cases to corporate lawsuits.

Paralegals work with lawyers and, depending on their skill level, can do just about anything a lawyer does except appear in court. They handle any number of legal activities such as interviewing clients and preparing for hearings, trials and corporate meetings. Paralegals review the facts of cases and perform research to make sure that all relevant information is considered. Then they help organize information and prepare reports and legal documents.

That’s a general description, but according to Haworth, who has more than 19 years experience in the job, a paralegal’s specific duties depend upon the work environment. For instance, an in-house corporate paralegal will do work that is very different from the work of a paralegal at a government agency or a law firm. In addition, what a paralegal in a law firm will do changes drastically depending upon the type of practice – a sole practitioner or a small, medium or large firm – and upon the area of law in which the attorney(s) engage.

Currently, seven out of 10 paralegals work for corporate legal departments and government agencies doing everything from criminal law to intellectual property law to real estate transactions. Most have an associate degree in

paralegal studies or a bachelor’s degree coupled with a certificate in paralegal studies.

Haworth is no exception. She not only has a paralegal certificate from Indiana University, but also a bachelor’s degree in criminal justice with a minor in psychology. Her training, education and experience make her uniquely qualified to handle just about any task that comes her way.

“On a daily basis, I may meet with a client; draft pleadings, motions and orders or other documents; and relay questions and answers back and forth between the client and attorney or between opposing counsel and my attorney,” she said. “I create exhibits and trial presentations, answer technology questions for other staff and attorneys and am the ‘go-to’ person regarding most of our firm’s technology. I also do much investigation and fact gathering along with some research. I may interview a witness or research an expert, go to an accident scene and take pictures or do any other number of things.”

It’s a lot of responsibility, but it’s also part of what keeps the job interesting and exciting for Haworth.

“I want to be challenged on a daily basis,” she said. “I like doing and learning new things, and it helps to prevent boredom. In addition, I love to write, so for me, the best part of the job is drafting new or unusual motions, orders and briefs. I also enjoy doing research and investigation.”

She recommends it as a career for anyone who is efficient, detail-oriented and interested in the law.

– Sandra Moran

Anita Haworth





Investigate Forensic Science

When you hear the work “forensic,” you’re sure to think about how science is used to solve crimes. It’s possible that your skills may lead to a career in one of these fields:

- Computer forensic technicians
- Crime scene photographers
- Criminal profilers
- Electronic evidence collection specialists
- Fingerprint examiners
- Forensic accountants and fraud examiners
- Forensic artists and sculptors
- Forensic entomologists
- Forensic medical specialists
- Forensic nurses
- Forensic odontologists
- Forensic pathologists
- Forensic psychologists
- Forensic serologists
- Information systems auditors
- Information systems security specialists

Search the Internet for information about careers in forensic investigation.

INFORMATION INVESTIGATION

American Bar Association:

<http://www.abanet.org/home.html>

Center for Information Security,

University of Tulsa: <http://www.cis.utulsa.edu>

Department of Homeland Security:

<http://www.dhs.gov/dhspublic>
and <http://www.usajobs.opm.gov/homeland.asp>

Federal Bureau of Investigation

careers: <https://www.fbijobs.com>

Forensic Sciences Foundation:

<http://www.forensicsciencesfoundation.org>

Legal assistants, legal secretaries and

paralegals: <http://www.nala.org> and
<http://www.legalsecretaries.org>

Security Check

Education Needed • Median Income

Correction services

Correctional officers	HS, ST	\$ 35,760
Counselors	M, lic.	38,210
Probation officers, correctional treatment specialists	B	42,500

Emergency and fire management services

EMTs	ST, cert.	27,070
Firefighters	HS, A, exams, app., physical req.	41,190
Hazardous materials removal workers	HS, ST, OJT, federal lic.	35,450

Security and protective services

Network and computer systems administrators	A, B, M	62,130
Private detectives, investigators	exam, lic., B; educ. based on employer req.	33,750
Security guards	HS, OJT, ST, lic.	21,530

Law enforcement services

Detectives, criminal investigators	exp., B pref.	58,260
Dispatchers	HS, exams, OJT	32,190
Police, sheriff’s patrol officers	HS, exams, A or B pref., ST, physical req.	47,460

Legal services

Bailiffs	HS, some college, OJT	34,210
Court reporters	A, cert.	45,610
Lawyers	B, law school, bar exam, lic.	102,470
Paralegals, legal assistants	A	43,040
Arbitrators, mediators, conciliators	B, ST	49,490

Abbreviations and sources: See page 11.

THINK ABOUT MANUFACTURING



*Shannon
Welsh*

WELDING IS HER CALLING

Shannon Welsh knew the minute she picked up a welding torch that she had found her calling. Convincing herself to pursue it as a career, however, was another matter.

Welsh was a single mother and was committed to finishing her training in auto body repair. However, an internship at an auto body shop and three years of struggling to make ends meet made her reconsider her decision.

“I knew I had to do something different, so I thought I would go back to college,” she said. “I absolutely fell in love with welding.”

That was two years ago. Today, Welsh is a tradesman welder with a two-year degree in technical arts from Olympic College in Bremerton, Washington. Not only that, but she also was the first woman at the college to pass the welder qualification tests in accordance with the American Welding Society and Washington Association of Building Officials.

And now, each day she goes to work welding Navy carriers at the Puget Sound shipyards as an employee of Northrup-Grummon.

“I’m a visual person. I like seeing the results right away ... and there’s just something powerful about burning metal. For me, it’s a creative outlet.”

– Shannon Welsh

It’s challenging work, but she loves it.

Although Welsh works at a shipyard, welders, in general, use hand-welding or flame-cutting equipment to weld or join metal components in a variety of capacities. Some are functional. Others are artistic.

Currently, an average day begins at 4 a.m. After getting herself and her daughter ready, she heads to the shipyards, where she has to be to work by 5:30 a.m. Then, after

(continued)

MANUFACTURING

Occupations in the Manufacturing career cluster involve planning, managing and performing the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance and manufacturing/process engineering.



preparing her gear, she heads to whichever ship she's assigned and works a 10-hour shift welding the racks that will house the ship's communications systems.

"I usually work 60 hours a week, six days a week," she said. "I could work more but it's important to spend time with my family."

She recommends this career path for anyone who is interested – especially women.

"Do it," she said. "Plain and simple, do it. The field right now is open because all these baby boomers are retiring. Welding is a career with lots of opportunities, and you could retire at a young age if you work hard."

– *Sandra Moran*



– U.S. Navy photo by Mass Communication Specialist 3rd Class Justin R. Blake

USS Abraham Lincoln pulls into her home port at Naval Station Everett. The aircraft carrier returned from sea trials after being drydocked at Puget Sound Naval Shipyard in Bremerton, Washington.

ANDY GILLES: INDUSTRIAL CALIBRATION TECHNICIAN

Andy Gilles found his career job while he was still in high school. He took part in an internship kind of experience, and today he is an industrial calibration technician at ATS in Peoria, Illinois.

On the job, Gilles does both repair and calibrations. He works with precision measuring tools to check the quality of parts used on assembly lines. The tools he uses are dial indicators, bore gauges, snap gauges, height gauges, calipers and micrometers.

The work is multifaceted. "We evaluate what jobs we have and arrange them by priority. When parts need to be repaired, we disassemble them, repair them and check our repair. Then we return them.

"We also keep documentation on when the parts are repaired, what was done with them, how they measured and who did the repair and calibrations," Gilles explains.

The work also is challenging and creative. For example, some parts that come in for repair often have a common problem. "It's very easy to do a quick fix," says Gilles. "But I kind of step back and say, 'There are a lot of similar problems. Why? Is it a design flaw? Some sort of condition that involves how the tool is used at the customer's site?'"

"A lot of times, we take it into our own hands to make the improvement for a part. We may change a design flaw to prevent the problem. Or we may do something to protect a part that's too fragile for its environment," he adds.

Gilles works with a team of three techs who all do repairs or calibrations. "Although you actually work by yourself to do repairs, it's important to work with other teammates. They may have experience and insight that you

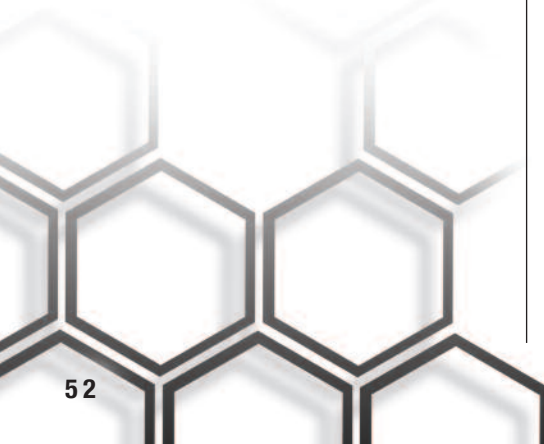
don't have. They also help you with your workload.

"The difficult and interesting part of the job is to test yourself and think hard about how you can change something and improve something," Gilles says.

Gilles began to test himself in childhood. "I tinkered with bikes and bought my first car when I was 14. I think there's a need for some natural mechanical aptitude, but more important is the desire to learn and to improve yourself. It does go hand in hand."

– *Mary Pitchford*

Andy Gilles





SEEKING A MANUFACTURING JOB?

Government statistics indicate that manufacturing job growth is slowing overall. However, in some states, jobs in certain manufacturing fields are growing.

For example, at the time of publication, welding jobs were growing by 26 percent in Arkansas, 14 percent in Florida, 11 percent in Tennessee and 12 percent in Oregon. Jobs for electrical and electronic engineering technicians were growing by 11 percent in Kentucky, 16 percent in Mississippi, 14 percent in Texas and 9 percent in North Carolina.

For more information about a particular job, go to <http://online.onetcenter.org>, and type in the job name in the “Find Occupations” box. Click on a job title, and move to the bottom of the page. Under “State & National,” click on the name of your state.

Or for more information about jobs in your state, go to <http://www.careeronestop.org>. You’ll find your state under “State Job Banks.”

Other considerations include:

- Moving to another state if you can find a job available for someone with your skills
- Retraining for another job that you can find near home
- Finding and training for a job that both meets your needs and responds to another interest of yours

MANUFACTURING CAREER SCOPE

Advanced manufacturing:

<http://www.CareerVoyages.gov/advmanufacturing-main.cfm>

Manufacturing Career Guide:

<http://www.khake.com/page40.html>; links to manufacturing career information

Manufacturing engineers:

<http://www.sme.org>

Metalforming careers: <http://www.metalforming.com/edufound>

Tooling, precision metalworking careers in the Chicago area: <http://www.tmanet.com/career>

Welding careers: <http://www.aws.org/w/a/education/career.html>

Manufacturing Career Choices

Education Needed • Median Income

Production

Assemblers, fabricators	HS pref., ST	\$ 26,730
Computer-control programmers and operators	app., OJT, HS, CTE, A	31,670
Electronics engineering techs	CTE, A	50,660
Large printing press operators	app., OJT, CTE, A	30,990
Machinists	app., OJT, HS, CTE, A	34,770
Model makers, metal and plastic	OJT, CTE, cert., HS	42,050
Multiple machine tool setters, operators and tenders, metal and plastic	HS, OJT, CTE	30,530

Manufacturing production process development

Chemical engineers	B, lic.	78,860
Design engineers, electrical, mechanical	M, lic., exp.	75,930
Electrical, electronics drafters (CAD operators)	A pref.	46,830
Electronics engineers	B, lic.	81,050
Industrial engineers	B	46,810
Materials engineers	B, lic.	73,990
Production mgrs.	B	77,670
Purchasing mgrs.	B, M pref.	81,570

Maintenance, installation and repair

Computer repairers	cert., A pref.	36,480
Electrical, electronics repairers	A pref.	43,110
Electricians	app.	43,610
Industrial machinery workers	OJT, app.	41,050
Line installers, repairers, except millwrights	HS, cert., A, OJT	46,280
Millwrights	OJT, app., A	45,630
Plumbers, pipefitters and steamfitters	app.	42,770
Security system installers repairers	CTE	34,810

Quality assurance

Inspectors, testers, sorters, samplers and weighers	ST, A	29,420
Laboratory (science) techs	A, B	32,840

Logistics and inventory control

Administrative services mgrs., logistics, transportation	exp., cert., CTE, A, B; varies by industry	67,690
Material movers	HS pref., OJT	30,270
Production, planning and expediting clerks	HS, OJT	38,620
Dispatchers	HS, computer, office skills	32,190

Health, safety and environmental assurance

Environmental engineers	B, lic.	69,940
Hazardous materials removal workers	HS, FT, lic.	35,450
Occupational health, safety specialists, techs	B, cert.	58,030

Abbreviations and sources: See page 11.



Cheryl Pletcher

CAREER JOURNEYS

Career paths often don't follow a straight line. Consider Cheryl Pletcher's career journey for example.

Where did Pletcher's journey begin? Where is she now? How did her education and experience help her along the way?

Your career journey may very well lead to future possibilities. Think about and list how your experiences could apply to other career opportunities?

MARKETING STRATEGY

Cheryl Pletcher's family bleeds green – John Deere green, to be exact.

Not only was her grandfather a John Deere dealer in Seymour, Indiana, but also her father worked in different capacities within John Deere – which is why there seemed little question as to where Pletcher would go to work after she earned her bachelor's degree in business administration with a major in accounting.

Pletcher's first job with Deere was as a dealer management representative. She traveled the state of Texas to help dealers make the transition to automated accounting and parts inventory systems. Over time, she was promoted within the company, which included serving as the company's first female factory manager, until she reached her current position as a strategic marketing manager.

According to the Bureau of Labor Statistics, marketing managers as a whole determine the demand for products and services offered by a firm and its competitors and identify potential customers.

Once they've done this, they help develop pricing strategies with the goal of maximizing the firm's profits or share of the market while ensuring the firm's customers are satisfied. They also oversee product development or monitor trends that indicate the need for new products and services.

As a strategic marketing manager, Pletcher performs each of these duties, but with an eye to the future

– five years into the future, as a matter of fact.

"I am responsible for guaranteeing John Deere's long-term viability in the marketplace by identifying unmet customer needs that can be turned into growth opportunities," she said.

It requires a lot of travel both inside and outside of the U.S., a lot of e-mailing and teleconferencing, and a lot of market research. It also involves a lot of "face time" – with market researchers, pricing analysts, channel managers, accountants, engineers, operations managers, senior executives and, of course, customers.

"I travel about a third of the time to visit customers and meet with other John Deere employees primarily discussing global customer requirements for our products," she said. "When I am in the office, I meet primarily with two other disciplines ... market research and tactical marketing. Market research gathers the data we need to confirm/deny our opportunities. Tactical marketing is the group who makes the short-term marketing decision that keeps us in the game and positions us for long-term growth."

The other aspect of her job is developing and "selling" new ideas and growth opportunities to the

MARKETING, SALES & SERVICE

Occupations in the Marketing, Sales & Service career cluster are related to planning, managing and performing marketing activities to reach organizational goals.





senior managers of Deere. To accomplish this requires excellent communication skills, the ability to utilize technology and proficiency in math and English.

“We have to use math to understand company financial ratios, statistics in market research analysis and problem solving,” she explained. “I write all day ... e-mails, PowerPoint ... I spend a significant amount of time on my PC and use a Blackberry for communicating.”

It’s a job that challenges her constantly – but in a good way.

“I work with wonderful people with great minds,” she said. “I am always learning from the people around me. And, no two days are the same for me. I like the variety.”

– Sandra Moran

MARKETING TALK

Every profession has its own vocabulary. For example, Cheryl Pletcher talks about strategic and tactical marketing. As a future marketer, you’ll want to learn the language. For help, access the American Marketing Association’s dictionary of marketing terms at <http://www.marketingpower.com/mg-dictionary.php>.

MARKETING INFO

- American Marketing Association:
<http://www.marketingpower.com>
- Association of International Product Marketing and Management:
<http://aipmm.com>
- Sales & Marketing Executives:
International: <http://www.smei.org>



Marketing Career Data

Education Needed • Median Income

Management and entrepreneurship

Administrative assistants	FT, CTE, A	\$ 37,240
Customer service reps.	HS, A, B	28,330
Human resource mgrs.	B	80,980
Top executives	B or higher	85,230

Professional sales and marketing

Advertising sales agents	B, exp.	42,750
Manufacturers’ reps., whole-sale and manufacturing	B pref.	
- technical and scientific products		64,440
- other products		49,610

Sales mgrs.	M, exp.	91,560
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Buying and merchandising

Merchandise buyers	M pref.	44,640
Retail salespersons	OJT	19,760
First-line supervisors/mgrs. of retail sales workers	exp.	33,960
Merchandise displayers and window trimmers	OJT	23,820

Marketing communications and promotion

Advertising, promotions mgrs.	B, exp.	73,060
Art directors	B pref.	68,100
Desktop publishers	CTE, cert., A	34,130
Marketing mgrs.	B, M	98,720

Marketing information management and research

Data entry and information processing workers	HS, CTE	24,430
Database administrators	B	64,670
Marketing research analysts	M	58,820
Survey researchers	M	33,360

Distribution and logistics

Office and administrative support supervisors/mgrs.	Postsecondary education, A or B pref., exp.	43,510
Shipping, receiving and traffic clerks	HS, OJT, computer skills	26,070
Warehouse mgrs.	HS, exp.	73,080

E-marketing

Computer, information systems mgrs.	B, M pref.	101,580
Computer systems analysts	B, pref.	69,760
Multimedia artists, animators	B pref.	51,350
Product (brand) mgrs.	B	82,490
Web developers, designers, Webmasters	CTE, A, graphic skills	68,570

Abbreviations and sources: See page 11.

TECHNOLOGY PROVIDES A VARIETY OF JOB OPPORTUNITIES

If your talents and skills lie in fields related to science, engineering and mathematics, explore technology jobs related to those fields. There are jobs in aviation and automotive technology, broadcasting and laboratory technology, medical equipment and other repair technology ... and more.

Also explore related jobs in management, sales, support services and others. Technology companies will find your skills and experience a plus in administrative positions like these.

You can find out more about technology jobs at <http://www.bls.gov/oco/ocoitz.htm#T>.

SCIENCE, TECHNOLOGY, ENGINEERING & MATHEMATICS

Occupations related to Science, Technology, Engineering & Mathematics encompass planning, managing and providing scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

MAKING OUR WATER SAFE

When Nancy Gallinaro was a little girl, she didn't dream of working in wastewater treatment. She didn't even know what wastewater treatment was. But now, after more than 25 years of making dirty water clean, she knows she made the right career choice.

Gallinaro is director for wastewater operations and maintenance for Boston's wastewater collections system. The facility serves Boston and the 42 surrounding communities. It's part of the Massachusetts Water Resource Authority.

Not many women go into the field. In fact, Gallinaro is one of fewer than five percent of women in the U.S. who are part of the wastewater treatment industry.

She made the career choice after graduating from high school in 1979. At the time, she was the only woman in a vocational school class of 50 studying to be pollution control technicians. Today, she helps run one of the country's largest wastewater collection systems.

A typical day for Gallinaro begins at 7 a.m., when she answers e-mails about facility operations and checks in with the people who report directly to her to see what's going on. After sitting in on meetings, she often climbs into her truck and goes out to see what operators in the field are doing and what repairs they're making.

"The great thing about this career is that you can be anything you want to be," she said. And, she said, the jobs available are going to be growing because many of today's wastewater treatment workers are going to be retiring soon. Not only does that mean a lot of available jobs, but also promotions.



Nancy Gallinaro

According to the Bureau of Labor Statistics, job prospects for wastewater treatment operations are very good. Jobs include chemists, engineers, laboratory technicians, mechanics, supervisors and operators. Many career-technical schools offer certification programs specific to wastewater treatment.

One of the jobs that is going to be most in demand is the job of an operator. Operators read and adjust meters and gauges to make sure that equipment is working properly. Most work one of three eight-hour shifts both indoors and outdoors.

Duties include monitoring control pumps, valves and gauges. They take samples of the wastewater, perform chemical and biological laboratory tests, and adjust the amounts of chemicals, such as chlorine, in the water. Common tools include computers and equipment to sample and measure water quality. Hand and power tools are also used to make repairs to valves, pumps and other equipment.

"If you were to make a list of all the different things you could do within wastewater treatment, the list goes on and on," Gallinaro said. "I have mechanics, electricians, welders, pipe fitters, licensed supervisors, managers ... it's just a huge, huge job." – *Sandra Moran*

RAY FINCH: BIOMEDICAL TECHNICIAN

In a hospital, all the personnel are important. But for doctors and nurses at Portland Shriners Hospital in Portland, Oregon, having Ray Finch as a co-worker is critical. It's his job to ensure the success of every operation and that each X-ray and the next defibrillator they grab is ready to save a life.

Finch repairs and maintains all the medical equipment in the hospital and works with the people who use the machines. He loves the variety his career offers. From verifying calibrations to cleaning filters and changing hydraulic fluids, Finch never does the same job from one day to the next. And if something doesn't work, his fun is just beginning.

"I can go from working on a sterilizer to checking out something in the OR," Finch explains. "A lot of my job is troubleshooting – thinking logically. If this doesn't work, why not? It's challenging figuring out what went wrong."

"I do carry a pager for emergencies," Finch says. "But we also have backups for a lot of our critical equipment. So if something fails, another can be pulled out and used."

Finch asks questions of himself and others: Was it dropped? Did a component fall off? He reviews schematics, looks at maintenance records and checks out the power supply. Equally important, Finch must always let personnel know when he's fixed an item, not just replace it on the shelf and assume it will be found when needed.

In fact, history is kept on equipment from the day it comes into the hospital until it leaves Shriners. When the piece first arrives, it's entered into a computerized inventory system, and any routine or repair work done on an item is recorded. Inspectors come periodically to make sure all his records are maintained. Such record keeping affects the hospital's accreditation. It's one more responsibility Finch takes pride in handling correctly.

Finch's initial training came via an early military career, with six years in electronics. Interested in a career in biomedical technology? Then you need to gain electrical training and be able to think logically. Finch says that computer knowledge is critical, too. As more and more computers are used in diagnostic machines, those making the repairs must gain even more expertise in understanding how all components interconnect. As a one-person shop, he has to keep on top of everything – making sure the next defibrillator is ready to save a life.

– Joan Rhine

Ray Finch



TECHNICAL EQUIPMENT

Biomedical technicians are responsible for repairs on a broad range of precision equipment like:

- Heart monitors
- Defibrillators
- X-rays
- CAT scanners
- Ultrasound equipment
- Electric wheelchairs
- Sterilizers

GPS TECHNOLOGY: IT'S A PART OF LILLIAN SCOGGINS' JOB

For anyone interested in rappelling, hiking and cartography, Lillian J. Scoggins has a pretty cool job.

A geographic information system (GIS) specialist, she is responsible for using global positioning system (GPS) technology to create three-dimensional maps of the 52,800-acre Mammoth Cave National Park – including the 365-mile cave itself.

It can seem like a daunting task – one that's literally mammoth in scale. But, with the right tools and patience, it's actually quite manageable.

GIS is a system that integrates hardware, software and data for capturing, managing, analyzing and displaying all forms of geographically referenced information.

"I take data for the park, spatially reference the data into the proper coordinate system and create layers in GIS," she said. "This data is then layered with other data to make maps for research studies, presentations, posters, brochures, wayside exhibits and Web sites."

"I keep track of all GIS layers for the park – roads, trails, buildings, cemeteries, hydrology, geology, soils, cave locations (almost 400 other caves that are not connected to the Mammoth Cave system exist in the park), fire boundaries and study plots," she explained. "Some of these layers are produced by other entities, and I manage them. Some of these layers we 'GPS' and produce here in the park.

"I keep photo inventories of resources signs, buildings, cave entrances and things like that. These photos are then linked to the GIS points," she said. "This way, when we click on a point, we can see what is there and all the information we have about that point ... the photo of the entrance and whatever else is located at that

point and any information we may have, such as name, size of entrance, length of cave, etc."

Although there is a fair amount of desk time, there's also ample opportunity to get outside and work.

"Some days I may help cut a tree, plant a tree, pull exotics, look for cave entrances, listen for birds, hunt snakes, count salamander eggs, put out a fire, assist in

rescuing someone or respond to a hazardous spill," Scoggins said.

All in all, she believes it's a fulfilling career that's perfect for anyone who likes science and nature.

– Sandra Moran



"If you love being outdoors and don't care about getting dirty or hard work, you will love working in this type of career."

– Lillian J. Scoggins

Career Math

Because of Lillian Scoggins' varied duties, she has the opportunity to work with geologists, historians, ecologists, wildlife biologist, resource management specialists and general technicians. Sometimes she's compiling information. Sometimes, she's providing it.

"It could be law enforcement that needs to know how far in the woods a rescue will be or how many acres burned from the wildfire or prescribed burn.

"Maintenance may need to know how long a trail is to calculate how many supplies will be necessary to fix the area.

"Or Sciences and Resources Management (SRM) may need to calculate an area to figure out how much of an area of native flowers has been affected by exotics and what they will need to do to figure out how to eradicate the exotic species."

"On a daily basis, I use math to calculate distances, areas, acreages, and lengths for roads, trails or field studies," she said.

Career Research

Education Needed • Median Income

Engineering and technology

Electricians	app.	\$ 20.97/hr.
Engineers	B, lic.	
Aerospace		87,610
Biomedical		73,930
Chemical		78,860
Civil		68,600
Electrical		75,930
Environmental		69,940
Industrial, including health, safety		68,620
Mechanical		50,236
Sales engineers	B, exp.	77,720
Technicians		
Audio and video	ST, A	34,840
Broadcast	CTE, A	30,690
Sound engineering	A	43,010
Science and math		
Atmospheric scientists meteorologists	B	77,150
Biological scientists	M, D pref.	
Biochemists and biophysicists		76,320
Microbiologists		57,980
Zoologists, wildlife biologists		53,300
Drafters (CAD operators)	CTE, A, B	41,960 - 46,830
Chemists, materials scientists	B, M, D pref.	59,870
Geoscientists	M, D pref.	72,660
Medical scientists	D or MD	56,670 - 61,680
Science technicians	A, B	
Biological		17.17/hr.
Chemical		18.87/hr.
Environmental science and protection, including health		18.31/hr.
Statisticians	M, D pref.	65,720

Abbreviations and sources: See page 11.

SITES TO EXPLORE

American Chemical Society:

<http://www.chemistry.org>

American Institute of

Biological Sciences: <http://www.aibs.org/careers>

Cool Careers in Science: http://www.pbs.org/safarchive/5_cool/53_career.html

Engineering: <http://engineeringk12.org>,

<http://www.jets.org>,

<http://www.swe.org> and

<http://www.education.org>

Mathematics: <http://www.maa.org/careers/index.html>

Physics: <http://www.aps.org>

Technology-related student sites:

<http://www.tsaweb.org> and

<http://skillsusa.org>

Pursuing a STEM Career?

Many in-demand jobs require a background in science, technology, engineering and mathematics (STEM). If you have these abilities, ask yourself:

1. How can I apply my STEM talents to jobs in each career cluster?
2. Do I need to pursue more education or training to update skills?
3. How can I broaden my network of people who can help?

You've seen the brown UPS trucks. You rely on the services of this company and others like it to deliver the goods for you – on demand – almost every day of your life. But, aren't you just a little curious about *how* the worldwide network of planes, trains, ships and warehouses work to bring you food, clothing, medicines, equipment, automobiles and more? And don't you wonder what kinds of jobs they offer?

GETTING A PACKAGE FROM 'POINT A' TO 'POINT B'

How does a package get from "Point A" to "Point B" so quickly? The answer to that question is that it's all thanks to a highly efficient, state-of-the-art logistics and distribution system and all the jobs along the way – beginning with the UPS employee to whom you give the package in the first place.

Whenever a package is sent, it has to have a special shipping label. The minute it leaves a customer's

hands, it's scanned into the UPS computerized tracking system. Next it's sent to the local sorting facility where UPS employees scan the label to determine where the package needs to go. If it's being sent farther than 200 miles, it's loaded onto a plane; if fewer than 200 miles, it's transported by truck.

To be as space-efficient as possible, packages sent via air are stacked in large, domed cargo containers that fit against the inside

curves of the plane. Their destination? Louisville, Kentucky, home of Worldport, the UPS Global Operations Center. It's here where "the sort" happens.

Large enough to hold 80 football fields, the Worldport is a sea of 17,000 conveyor belts that, if stretched end to end, would total about 122 miles. There are seven



There are a variety of tractor-trailer driving positions within UPS. They range from:

- **City Driver** – Involves driving a tractor-trailer and daily pickup and delivery of freight from commercial and residential customers on a given route.
- **Truckload Dedicated Driver** – Involves driving a tractor-trailer for over-the-road delivery of freight to two or more locations for specific (dedicated) customers. These drivers are normally on the road from one to five days at a time.
- **Truckload Domestic Driver** – Involves driving a tractor-trailer for over-the-road delivery of freight to two or more locations. These drivers may take loads from a shipper and deliver to anywhere in the country. They typically are on the road from one to three weeks at a time.

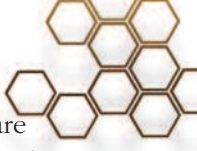


There are about 4,700 technology workers at UPS who include hardware developers, software engineers, systems developers and others. The company has 15 mainframe computers that process 27 million instructions a second, track 15 million packages each day, coordinate the operations of an entire airline, collect and distribute package delivery data from 96,000 handheld DIADs (Delivery Information Acquisition Devices) and connect 149,000 workstations through 8,700 servers.



Package handlers are one of the most important components of the UPS logistics system. The work is physical, fast-paced and involves part-time and full-time shifts where handlers are responsible for lifting, lowering and sliding packages that weigh between 25 and 75 pounds.





primary conveyor belt loops – each with 364 stations at which a package can move to another belt based on a specific city, state, zip code, street or block. It takes a package about 15 minutes to travel through the Worldport – moving from belt to belt to belt at a speed of about one mile every 2.5 minutes.

When the plane arrives at the Worldport, it's unloaded by employees who use wireless Bluetooth or Wi-Fi scanners worn on their hands to scan the packages. Once scanned, the information is sent to a central computer, and the packages are placed on one of three different conveyor belts – one for flat packages, one for regular six-sided boxes and one for irregularly

shaped boxes. Just to put this into perspective, within the Worldport, the computers make *59 million* database transactions every hour.

Once sorted and placed with packages bound for similar destinations, the packages are again loaded into cargo containers ... that are loaded onto planes ... that take the packages to their respective regional sorting facilities both in the U.S. and 200 other countries.

Upon reaching their final destination, the packages are unloaded, scanned again and affixed with a pre-load assist label (PAL) that tells employees which conveyor belt will carry the packages to the correct delivery truck.

The packages are loaded on the truck so the driver can find them

quickly and easily. Then, using route-planning software so he or she can take the most efficient route, the driver heads out and delivers the packages.

At any time, from the moment the package is sent until it's delivered, it's possible to go online and track progress.

As you can see, getting a package from "Point A" to "Point B" is a significantly more complicated process than the guy on the commercial suggests. But it's one that each day, through the work of thousands of employees from the corporate level of sales, marketing or IT, to drivers and package handlers, makes UPS one of the world's most successful package delivery companies.

Graphic content courtesy of UPS.



As part of the UPS logistics system, both in the US and abroad, there are corporate jobs that deal with Customs Brokerage, Trade Management, Intermodal Logistics, and Business Development.



At each of the facilities, there are warehouse personnel who include managers, security staff, truck mechanics, conveyor technicians/operators and package handlers.



UPS.com is available in 32 languages. The site handles more than 14.5 million page views and 15 million tracking requests on a daily basis.



TRANSPORTATION, DISTRIBUTION & LOGISTICS

LEARN MORE

American Society of Transportation and Logistics: <http://www.astl.org>
 Council of Supply Chain Management Professionals: <http://cscmp.org>; click on "Career Center," then the "Careers in Supply Chain Management" Web site.

Jobs in Logistics: <http://www.jobsinlogistics.com>



In addition to taking packages to the UPS facilities to ship, UPS has a service for businesses in which drivers pick up packages and transport them to a local sorting facility.

TRANSPORTATION, DISTRIBUTION & LOGISTICS

Occupations in the Transportation, Distribution & Logistics career cluster are related to planning, management and movement of people, materials and goods by road, pipeline, air, rail and water. The cluster also encompasses related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment and facility maintenance.

Logistics Career Data

Education Needed • Median Income

Transportation operations

Aircraft pilots, flight engineers	ST, exam., lic.	\$ 57,480 - 129,250
Bus drivers	HS, ST, CDL	24,820
Dispatchers	HS, computer skills	32,190
Locomotive engineers	ST, exp.	57,990
Ship, boat captains	OJT, U.S. Coast Guard exam, lic.	53,430
Traffic mgrs.	HS, some college, exp.	65,000*
Truck drivers	ST, CDL	
Heavy		16.85/hr.
Light		12.17/hr.

Logistics planning and management services

Logisticians	B, exp.	63,430
Supply chain mgrs.	B, exp.	93,500*
Top executives	B or higher	85,230

Warehousing and distribution center operations

Material moving occupations	OJT	30,270
Stock clerks	HS	20,440
Warehouse mgrs.	CTE, OJT, A, exp.	73,080

Facility and mobile equipment maintenance

Aircraft, avionics equipment mechanics, service techs	OJT, CTE, cert.	47,470
Electrical, electronics techs	A	45,120
Heavy vehicle and mobile equipment service techs	OJT, FT, CTE	40,440

Transportation systems/ infrastructure planning, management and regulation

Civil engineers	B, lic.	64,230
Transportation functions, other	exp., some college	74,000*
Urban, regional planners	M	53,450
Urban, transportation geographers	M	58,970

Health, safety and environmental management

Environmental engineers	B, lic.	69,940
Industrial engineers, including health, safety	B, lic.	68,620
Occupational health, safety specialists, techs	B, OJT, exam., cert.	58,038

Sales and service

Cargo and freight agents	HS, computer, clerical skills	37,110
Customer service reps.	HS, OJT	28,330
Financial, billing clerks	HS, OJT	28,050
Sales mgrs.	B, M, exp.	91,560

Abbreviations and sources: See page 11. *Go to Logistics Management magazine at <http://www.logisticsmgmt.com/> and search for the March 2008 digital edition; average salaries reported.

JOB-GETTING TIPS THAT WORK

You're doing your research. Perhaps you've signed up for a volunteer or part-time job to continue using your skills and build your network. Here are other job-getting tips that can work for you as well:

CUSTOMIZE YOUR COVER LETTER AND RÉSUMÉ

Your cover letter and résumé are ways to tell an employer how your experience, education and skills meet company needs.

But here's a word to the wise – customize. Hiring managers can spot “canned” cover letters and résumés in a glance.

You'll find many pages of advice on the Internet about how to customize these job-getting marketing tools. Start searching at <http://www.bls.gov/opub/ooq/1999/summer/contents.htm> and http://www.quintcareers.com/resume_samples.html. Or begin with the model cover letter and résumé you see on the next two pages.

GET READY FOR THE INTERVIEW

What would an interviewer think if you asked for a pen, some paper and a phone book to complete an application? To be prepared:

- Take a note pad, a pen and pencil and money for parking.
- Bring the names, addresses and phone numbers of former employers or supervisors, your references (ask permission first) and schools you've attended. They're needed, along with dates of employment and attendance, to complete the usual forms.
- Carry your photo ID and Social Security card, but, to avoid identity theft, present them only if the interviewer presents a solid job offer that you want to take.
- Prepare for questions that interviewers will ask you, such as “Why do you want to work here?” and “What skills do you have that will benefit our company?” Review the company Web site for information.

Also go to QuintCareers.Com at http://www.quintcareers.com/interview_questions.html and http://www.quintcareers.com/interview_question_database. And bring questions of your own, including “What are the day-to-day responsibilities of this job?” and “What are your major expectations of employees?”

BEHAVE LIKE A PRO

- Dress up, be on time, shake hands and speak professionally.
- Greet everyone you see with a smile and treat each person with respect. Interviewers often ask front-desk staff what they observed about an interviewee.
- Turn off your cell phone before you enter the front door.
- Be sure to send a thank-you note.



WISE WORDS

“For any job interview, dress at or one notch above what you think you would wear on an average day at work. If you're interviewing at the local McDonald's, a collared shirt and khakis are appropriate. If it's at a law firm, make sure your suit is ironed ... Cover up any tattoos, and remove excessive piercings ... It all comes down to knowing the company you want to work for.”

– Derek Wallbank, Lansing State
Journal reporter, Michigan

SAMPLE COVER LETTER AND RÉSUMÉS

A cover letter is your first chance to sell yourself. The sample below is like a 30-second TV spot or a magazine ad. It answers the “buyer’s” – in this case the hiring manager’s – main questions: “Can this person meet my needs?” and “Why should I ‘buy’ this particular person?”

KENNETH CAPABLE
1258 Elliott Drive
Hometown, MO 65505
537-515-1234
KC@somewhere.com

Month Day, Year

Karla Capitano
IT Systems Manager
TTET Energy Products, Inc.
Bigtown, Ohio 41112

Paragraph 1 names the position you want and cites your value to the company.

Dear Ms. Capitano:

The data management position you posted online closely matches my expertise. I feel that my technical skills and leadership abilities will contribute to your company’s growth.

In my current position, I work with information technology experts to design systems. Then I develop and assign tasks to the company’s programming team for execution. I also use my writing and speaking skills to create presentations to inform and instruct IT users.

Paragraph 2 summarizes the experience you have that best meets the employer’s needs.

Please review the enclosed resume. I believe my experiences and skills are well-suited for your data management position, and I look forward to discussing them with you. You can contact me any time by phone or e-mail, and thank you for your consideration.

Sincerely,

Kenneth Capable

Enclosure

Paragraph 3 restates your value and asks for the “sale” – an interview.



Wise Words

The résumé is a selling tool outlining your skills and experience so an employer can see, at a glance, how you can contribute to the employer's workplace.

– From Job Star Central at <http://jobstar.org/tools/resume/index.php>

TRADITIONAL RÉSUMÉ

Features employment history and education. Useful for younger, less-experienced individuals.

Use bold capital letters to emphasize major headings.

KENNETH CAPABLE
1258 Elliott Drive
Hometown, MO 65505
537-515-1234
KC@somewhere.com

Include the position applied for in the objective statement.

POSITION OBJECTIVE
To use my highly analytical programming skills and experience to meet the needs of an e-commerce company for data management

RELATED SKILLS
C, C++, HTML, IIS, Java, Oracle, PL/SQL, Visual Basic, XML/XSL
Strong writing and speaking skills

EXPERIENCE

Lead Programmer, E-Commerce Database Company, 2006 - present

- Worked with the company's clients, technical experts and architects to design systems
- Defined tasks required to implement complex projects
- Performed coding and code reviews
- Provided guidance to programming team members

Support Desk, Large State University, 2003 - 2005

- Maintained computer systems
- Installed applications and performed troubleshooting
- Instructed students on applications and systems

Data Entry Clerk, ABC Sales, 2001-2003

- Updated inventory and sales data

EDUCATION
Bachelor of Science: Computer Science major, Mathematics minor, 2001
Well-Known University, Smart Town, MA
Related College Courses: Database Design, Compiler Design, Systems Architecture, Operating Systems, Data Structures
Continuing Education: Negotiation Skills, 2009; Team Leadership, 2006

List key words in case the résumé will be scanned.

Place your education or experience in the middle, whichever is your strongest job-related asset.

Begin statements with action verbs. Identify major skills and specific achievements related to the position.

Remember to add recent educational experiences related to the position.





FUNCTIONAL RÉSUMÉ

Highlights accomplishments. Useful for career changers and individuals with gaps in employment history.

CALIDA L. ORTEGA
7216 Conestoga Road
Somewhere, TX 79679
432-515-5768
CLO@bigtec.net

POSITION OBJECTIVE

Seeking a corporate training position where I can use my wide-ranging curriculum development and teaching experiences.

RELATED SKILLS

Curriculum design, strong writing and speaking skills, and related Microsoft Word, PowerPoint, design and photography skills

PROFESSIONAL ACHIEVEMENTS

Curriculum Development Experience

Developed a curriculum to be used by staff of a national nonprofit organization to orient three different groups of volunteers to the goals of the organization and the duties of each group.

Training Design, Content Development and Presentation Experience

Designed a three-hour training session, wrote the content and prepared PowerPoint presentations for train-the-trainer sessions. Trained staff representatives who would use the curriculum at state and local levels.

Teaching Experience

Developed and taught a writing skills course for a local community college. Presented the course for four years. Also taught high school English and speech courses for six years.

EMPLOYMENT HISTORY

Training Consultant, Community Services National Organization and other nonprofit clients, 2004-present

Writing Instructor, Devlin County Community College, Somewhere, Texas, 2004-2008.

English Teacher, Conestoga High School, Somewhere, Texas, 1995-2001.

EDUCATION

BA, Education, Devlin State University, Kansas, 1993

MA, English, Devlin State University, Kansas, 1995

What Is a Plain Text Résumé?

Unlike the résumé above, a plain text résumé has no formatting – no bold, no italics, no accent marks, no bullets (use asterisks or hyphens instead). An employer who asks for plain text résumés likely will scan or copy them into a database. Then the employer can do a search for keywords that match company job needs.

STAYING HIRED

Getting a job is one thing. Keeping it is another. People who get fired too many times have a hard time finding future work.

To help yourself stay hired, follow this advice from career experts:

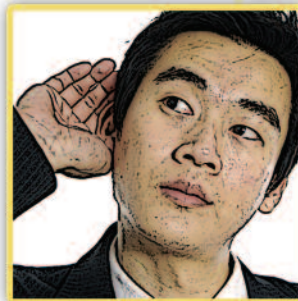
- Be on time, ready to begin work.
- Read the employee handbook, and “play by the rules” when it comes to company requirements, such as lunch and coffee breaks.
- Dress and act appropriately, and speak politely. Business etiquette is a plus if you want to stay hired.
- Sick? Call your boss when you’re too ill to come to work, and let your boss know when you’ll return.
- Vacation? Let your employer know in advance.
- Use the phone, computer and company equipment for business purposes only.
- Learn more about the company’s goals and priorities. Then you’ll understand which projects come first in line.
- Create a reputation as a trustworthy, reliable, productive worker.
- Be a responsible team member, and complete your contribution on time.
- Let your boss or team leader know about your progress on a project. Ask for information or help as soon as you need it. Then your finished work will be acceptable, and you’ll be able to meet your deadline.
- Demonstrate energy, confidence, flexibility and problem-solving, leadership and communication skills.
- Don’t gossip about the company, either online or with others. Gossip creates false information as it’s passed around to people inside or outside of the company. Rumors spread fast and can embarrass you and hurt your reputation.
- Keep your skills up to date. Read the latest information in print and online, and participate in workshops and classes. Your boss and others will see you as an expert.

Play It Safe

If you were a boss, what would you think if an employee ...

- Frequently roamed the halls and chatted with co-workers?
- Turned up in restricted areas or private offices?
- Took long breaks and often called in sick, particularly on Mondays and Fridays?
- Was texting or making frequent personal phone calls?
- Used the Internet to play computer games or visit personal Web sites?
- Made faces or inappropriate gestures?
- Flirted with or harassed other employees?
- Played April Fools’ Day kinds of pranks all the time?

Your boss isn’t the only watchdog. From security cameras to computer tracking software, the eyes of the company are upon you. So when it comes to keeping your job, play it safe.



DOES THIS LIST DESCRIBE YOU?

The most important qualities and skills employers look for in a job candidates are:

- Communication skills
- Strong work ethic
- Teamwork skills
- Initiative
- Interpersonal skills
- Problem-solving skills
- Analytical skills
- Flexibility/adaptability
- Computer skills
- Technical skills
- Detail-oriented
- Organizational skills

From the Job Outlook 2008 survey, National Association of Colleges and Employers (<http://www.nacweb.org/press/display.asp?year=2007&prid=270>)

REALITY CHECK

JOB INTERVIEW DON'TS

- Don't offer a limp or clammy handshake.
- Don't chew gum, smoke or answer cell phone calls during the interview.
- Don't provide negative information about yourself or former employers.
- Don't use poor language, slang and pause words ("um," "er" and others).
- Don't ever lie.

Excerpted from *Quintessential Careers* at <http://www.quintcareers.com/interviewing-dos-donts.html>.

BEWARE OF SCAMS

As the old saying goes, "If something sounds too good to be true, it probably is." That same advice applies when looking for a job or a scholarship to update skills.

By posting your résumé on a job board, you're taking a big chance. Your résumé contains your personal contact information. Simply send your résumé to a companies you know are real.

Fake companies, recruiters and even criminals can access résumés placed in large databases, which can lead to identity theft. Read more about the problem at <http://www.privacyrights.org/fs/fs25a-JobSeekerPriv2.htm> and <http://pamdixon.com/resumedatabaseguide.htm>.

And never give anyone your Social Security number or driver's license number unless you're officially hired. And don't give out your mother's maiden name or other personal information.

Likewise, if you're looking for scholarships to update skills, suspect a scam if you're asked for money or personal information. Read more at <http://www.finaid.org/scholarships/scams.phtml> and <http://www.ftc.gov/bcp/conline/edcams/scholarship/index.shtml>.

JOB TRENDS TO WATCH

Rob McGovern, CEO of the Jobfox career site at <http://jobfox.com> predicts that the following job sectors and key professions are most likely to grow as a result of President Barack Obama's economic stimulus policies.

Construction of Roads, Bridges, Transit and Rural Broadband. *Key Jobs:* Construction managers, project managers, civil engineers, computer-aided drafting specialists, telecommunications engineers.

Greater Oversight of Financial Markets. *Key Jobs:* Compliance accountants, internal auditors, tax accountants, government regulators.

Energy Independence. *Key Jobs:* Electrical engineers, mechanical engineers, power grid managers, biofuels chemists, sales and marketing personnel.

Healthcare Modernization. *Key Jobs:* Nurses, software developers, and bioinformatics, information technology and information security specialists.

Volunteerism and Community Involvement. *Key Jobs:* Social workers, administrators, translators.

WHY POLISH YOUR WRITING SKILLS?

More than two-thirds of state government professional workers have some responsibility for writing, as do 60 percent of state clerical employees, according to a recent survey. Further, more than 75 percent of survey respondents take writing into account when hiring and promoting, and most require writing samples. Poorly written application materials were likely to doom a job-seeker's chances of state employment. Learn more at <http://www.writingcommission.org/pr/message-from-state.html>.

Looking for a Job? Start Your Job Search Here.

The Bureau of Labor Statistics predicts that these jobs will have the largest growth by 2016.

SOURCE:
<http://www.bls.govemp/emptab3.htm>

Occupations predicted to have the largest job growth, 2006-16				
Title	(Numbers in thousands)	Number 2006	Number 2016	Percent Growth
Accountants and auditors		1,274	1,500	17.7
Bookkeeping, accounting and auditing clerks		2,114	2,377	12.5
Carpenters		1,462	1,612	10.3
Child care workers		1,388	1,636	17.8
Combined food preparation and serving workers		2,503	2,955	18.1
Computer software engineers, applications		507	733	44.6
Computer systems analysts		504	650	29.0
Customer service representatives		2,202	2,747	24.8
Elementary school teachers, except special education		1,540	1,749	13.6
Executive secretaries and administrative assistants		1,618	1,857	14.8
Food preparation workers		902	1,040	15.3
Home health aides		787	1,171	48.7
Janitors and cleaners		2,387	2,732	14.5
Landscaping and groundskeeping workers		1,220	1,441	18.1
Maids and housekeeping cleaners		1,470	1,656	12.7
Maintenance and repair workers, general		1,391	1,531	10.1
Management analysts		678	827	21.9
Medical assistants		417	565	35.4
Network systems and data communications analysts		262	402	53.4
Nursing aides, orderlies and attendants		1,447	1,711	18.2
Office clerks, general		3,200	3,604	12.6
Personal and home care aides		767	1,156	50.6
Postsecondary teachers		1,672	2,054	22.9
Receptionists and information clerks		1,173	1,375	17.2
Registered nurses		2,505	3,092	23.5
Retail salespersons		4,477	5,034	12.4
Security guards		1,040	1,216	16.9
Teacher assistants		1,312	1,449	10.4
Truck drivers, heavy and tractor-trailer		1,860	2,053	10.4
Waiters and waitresses		2,361	2,615	10.8

