

**MONTANA**

# **CAREER GUIDE 2011**



**Montana**

**Department of Labor and Industry**



**MONTANA CAREER  
RESOURCE NETWORK**

[www.careers.mt.gov](http://www.careers.mt.gov)

# ***MONTANA CAREER GUIDE 2011***

***Brian Schweitzer, Governor***

***Montana Department of Labor and Industry  
Keith Kelly, Commissioner***

***Created by the  
Montana Career Resource Network  
Research & Analysis Bureau  
P.O. Box 1728  
Helena, MT 59624-1728  
(406) 444-2430  
[www.ourfactsyourfuture.org](http://www.ourfactsyourfuture.org)***

***Career Resource Network Director:  
Shaunda Hildebrand***

***Contributors:  
Robert C. Marvin, Shaunda Hildebrand, Joe Ruby,  
Aaron McNay, Barbara Wagner***



***Montana***  
***Department of Labor and Industry***



# TABLE OF CONTENTS

## WHAT'S INSIDE?

<i>Introduction: Why Use This Guide?</i> .....	5
<i>Interest Assessment</i> .....	6-7
<i>Investigating Careers: Gaining Experience</i> .....	8
<i>Reality Check: The High Cost of Lifestyle</i> .....	10-11
<i>Education Pays</i> .....	12
<i>College Entrance Requirements</i> .....	13
<i>Choosing a College</i> .....	14-15
<i>Higher Education &amp; Vocational Training</i> .....	16
<i>Montana Schools</i> .....	17
<i>Apprenticeship Programs</i> .....	18
<i>Financial Aid</i> .....	19-20
<i>In-Demand Job Skills</i> .....	21-22
<i>The Job Search</i> .....	23
<i>Job Service Workforce Center Locations</i> .....	24
<i>Marketing Yourself</i> .....	25-26
<i>Cover Letters</i> .....	27
<i>Resumes</i> .....	28
<i>The Job Interview</i> .....	29
<i>Personalized Employment Plan (PEP Talk)</i> .....	30
<i>Job Seeker Resources</i> .....	31
<i>Occupations Guide</i> .....	32
<i>Agriculture, Food, &amp; Natural Resources Occupations</i> .....	33-37
<i>Architecture &amp; Construction Occupations</i> .....	37-41
<i>Arts, A/V Technology and Communication Occupations</i> .....	41-43
<i>Business, Management, and Administration Occupations</i> .....	44-49
<i>Education &amp; Training Occupations</i> .....	50-52
<i>Finance Occupations</i> .....	53-55
<i>Government &amp; Public Administration Occupations</i> .....	56-58
<i>Health Sciences Occupations</i> .....	59-62
<i>Hospitality &amp; Tourism Occupations</i> .....	63-66
<i>Human Services Occupations</i> .....	67-71
<i>Information Technology Occupations</i> .....	72
<i>Law, Public Safety, &amp; Security Occupations</i> .....	73-75
<i>Manufacturing Occupations</i> .....	75-77
<i>Marketing, Sales, &amp; Service</i> .....	77-80
<i>Science, Technology, Engineering, &amp; Mathematics Occupations</i> .....	81-82
<i>Transportation, Distribution, &amp; Logistics Occupations</i> .....	83-86



## INTRODUCTION: WHY USE THIS GUIDE?



**In high school,** the single most annoying question, and the one we seemed to get asked on a weekly basis, was “What do you want to do for a living?” The standard reply was, “How am I supposed to know? I’m only a sophomore!” To this, the usual response was, “That’s the time to start planning.” We didn’t know it then, but all those annoying teachers and relatives were right.

Consider this, if you wait until your senior year to decide on a career path, you may find that the type of college you want to attend requires four years of math in high school. Suppose you didn’t sign up for a math class this semester? By not planning ahead, you’ve severely limited your options.

But don’t panic (there you go, take nice deep breaths). Now remember, you are not “deciding what you want to do for the rest of your life.” Chances are, you’re going to change your mind several times along the way, and that’s okay. Only through experience do we learn what kind of work we are best suited for. That’s why it is so important to begin exploring careers early--so we have time to find out what we like and dislike about a number of jobs before committing to a certain path. And it is a commitment, of both time and money. Most jobs that pay a decent wage require a good deal of training and education. Before you shell out the bucks to attend a university, it’s a good idea to have set some clear goals for yourself.

The purpose of this guide is to help you take the first step in setting career goals. Whether you’ve known what job you want since the second grade, or have no idea what kind of jobs are out there, this guide can help. Inside you’ll find an interest assessment that will help you match up your interests with specific jobs. You’ll find an occupations guide that describes over two hundred of the top occupations in Montana, tells you how fast each is growing and what level of education is required, and lists low, median, and high-end wages. There are also sections that will help you choose a training program, gain necessary work experience, market your skills in a resume, and interview for a job.

Whether you are a high school sophomore considering careers for the first time, a stay-at-home-parent re-entering the workforce after several years, or someone just looking for a new line of work, this guide has valuable information for you. Good luck and happy hunting!

# INTEREST ASSESSMENT

## WHAT'S YOUR CALLING?

Some people report having had a “calling” to their chosen profession, meaning that they instinctively knew which job they were best suited to do.

For the rest of us, it's not so easy.

Even if you have no idea what career you'd like to pursue, you know that you'll want a job that matches your personality and interests. Discovering who you are and what you want out of life is probably the most important step in the career decision-making process. Unfortunately, it's also a step many people neglect when making major life decisions.

Experts agree that work satisfaction depends on matching your personality with your work environment. Working full-time can add up to 80,000 hours of work during your lifetime. Considering the number of hours of your life at stake, the amount of time it takes to do a self-assessment is negligible.

Your likes and dislikes are extremely important in your career planning. They will supply you with ideas of what types of work will suit you best. The following interest assessment is based on Holland's Interest Inventory. Mark the circle following each statement you agree with. When you are finished, add the number of marks in each column. The three letters with the highest scores are your “interest profile.”

You can use your interest profile to match your interests with specific occupations. Just flip to the occupations guide (page 32) and look in the second column. You'll find interest profiles

### MCIS Assessment Resources

The Montana Career Information System (MCIS) is available through most Montana high schools, all Montana Job Service Workforce Centers, and at home for free at [www.careers.mt.gov](http://www.careers.mt.gov).

#### IDEAS Assessment

Learn which occupations match your interests  
(This assessment not available through general use)

#### Micro SKILLS Assessment

Allows you to match your skills  
with specific occupations

#### O\*Net Interest Profiler

Identify your strongest work-related interests

#### Work Importance Locator

Find out which work values are most  
important to you, then explore  
occupations that match your values.

marked for each occupation. And remember, you don't have to limit yourself only to occupations that match your profile exactly. This exercise will just give you an idea of where to start looking.





# INTEREST ASSESSMENT

## I LIKE TO...

...do puzzles		<input type="radio"/>				
...work on cars	<input type="radio"/>					
...work independently			<input type="radio"/>			
...work in teams				<input type="radio"/>		
...organize things like files, offices, or activities						<input type="radio"/>
...set goals for myself					<input type="radio"/>	
...build things	<input type="radio"/>					
...read about art or music			<input type="radio"/>			
...have clear instructions to follow						<input type="radio"/>
...influence or persuade people					<input type="radio"/>	
...do experiments		<input type="radio"/>				
...teach or train people				<input type="radio"/>		
...help people solve their problems				<input type="radio"/>		
...take care of animals	<input type="radio"/>					
...have my day structured						<input type="radio"/>
...sell things					<input type="radio"/>	
...do creative writing			<input type="radio"/>			
...work on science projects		<input type="radio"/>				
...take on new responsibilities					<input type="radio"/>	
...heal people				<input type="radio"/>		
...figure out how things work		<input type="radio"/>				
...put things together or assemble models	<input type="radio"/>					
...be creative			<input type="radio"/>			
...pay attention to details						<input type="radio"/>
...do filing or typing						<input type="radio"/>
...learn about other cultures				<input type="radio"/>		
...analyze problems, situations, or trends		<input type="radio"/>				
...play instruments or sing			<input type="radio"/>			
...dream about starting my own business					<input type="radio"/>	
...cook	<input type="radio"/>					
...act in plays			<input type="radio"/>			
...think things through before making decisions	<input type="radio"/>					
...work with numbers or charts		<input type="radio"/>				
...discuss current events or politics				<input type="radio"/>		
...keep records of my work						<input type="radio"/>
...be a leader					<input type="radio"/>	
...work outdoors	<input type="radio"/>					
...work in an office						<input type="radio"/>
...work on math problems		<input type="radio"/>				
...help people				<input type="radio"/>		
...draw			<input type="radio"/>			
...give speeches					<input type="radio"/>	
	<b>R</b>	<b>I</b>	<b>A</b>	<b>S</b>	<b>E</b>	<b>C</b>

### YOUR INTEREST PROFILE:

Add  
Each  
Column

Write your top three totals here

## WHAT THE LETTERS MEAN:

### REALISTIC

Realistic people are often good at mechanical or athletic jobs. They like to work with things, like machines, tools, or plants, and they like to work with their hands. They are often practical and good at solving problems.

### INVESTIGATIVE

Investigative people like to watch, learn, analyze and solve problems. They often like to work independently, tend to be good at math and science, and enjoy analyzing data.

### ARTISTIC

Artistic people like to work in unstructured situations where they can use their creativity and come up with new ideas. They enjoy performing (theater or music) and visual arts.

### SOCIAL

Social people like to work directly with people rather than things. They enjoy training, instructing, counseling, or curing others. They are often good public speakers with helpful, empathetic personalities.

### ENTERPRISING

Enterprising people like to work with other people. They particularly enjoy influencing, persuading, and performing. They like to lead and tend to be assertive and enthusiastic.

### CONVENTIONAL

Conventional people are very detail oriented and like to work with data. They have good organizational and numerical abilities and are good at following instructions. Conventional people also like working in structured situations.

Assessment exercise adapted from  
Mncareers 2005 ([www.mncareers.org](http://www.mncareers.org))

# INVESTIGATING CAREERS

Sometimes our ideas about a career have little to do with its reality. This is why it is so important to investigate a possible career before you decide to pursue it. Unfortunately, this step in career planning is the one most often skipped, since it does take some effort. However, considering the effort (not to mention money) it will take to earn a degree or license toward your chosen profession, it is well worth your time. Just imagine spending four years and thousands of dollars earning a degree, only to discover that the job you thought you wanted is nothing like you thought it would be. It happens.

Even if you're certain you know what a career entails, and that you want to pursue it, investigating that career is still worth your time. It will give you the chance to learn what employers in your field are looking for in an applicant. You'll also make important contacts in the industry. Never underestimate the importance of letting employers in your field know who you are and that you are interested in what they do.

By reading career descriptions in this guide, you've already taken the first step toward investigating careers, but now it is time to take the next step. You'll find there are a number of great ways to begin exploring careers. They include:

- Informational Interviews
- Job Shadowing
- Internships
- Volunteer Work
- Part-Time or Temporary Work

## Informational Interviews

Informational interviews are the most direct way to find out about an occupation and to establish contacts. They also take less commitment than internships or part-time employment. All you need to do is find someone who has the kind of job you want and is willing to talk to you about it. Don't be afraid that you are wasting their time; you'd be surprised how many professionals are willing



to share their experience with an enthusiastic newcomer. Such interviews may even be helpful to employers, giving them the chance to communicate exactly the types of skills and training they need in new employees.

## Questions to ask:

You probably won't have a lot of time, so choose only a few important questions. Here are some ideas:

- How did you get into this type of work? This job?
- What type of preparation/education/training did you have? What is required?
- What do you enjoy the most about your job? The least?
- What three skills do you use most often on the job?
- Describe a typical day or week at your job.
- What motivates you?
- Describe difficulties you regularly face on the job.
- What are the advancement opportunities and limits?
- What must a person know to stay competitive?

- How does this job affect your home life?
- What are typical entry-level job titles and duties?
- Here are my strengths. How do they fit in this field?

When your time is almost up, end the interview. Thank the interviewee verbally and shake hands. Remember to ask for a business card, and to be referred to others who might be willing to grant you an interview. When you eventually do get a job, make sure to tell your interviewees about it—they'll want to know how your search ended.

### Tips:

- Interview several people in each occupation – often people with the same job title perform very different tasks
- When you call, say how you got that person's name.
- Explain that you're seeking advice and experience
- Set a time limit for the interview (generally 15 to 20 minutes) and stick to it
- Take notes
- Do your research – you won't have a lot of time, so eliminate certain basic questions by researching about what the company does.
- Dress and act professionally
- Don't ask the person for a job in any way
- Follow up with a thank you note.

### Job Shadowing

Job shadowing gives you a chance to directly observe someone on the job. You may spend anywhere from a few hours to a few days watching, listening, and asking questions as the employee performs their job. It's a great way to see firsthand the skills needed for a career you may be considering. Check out [www.jobshadow.org](http://www.jobshadow.org) for a complete job shadowing "How-To" guide.

### Internships

Internships are basically short-term jobs that may last for a few weeks or a few months. They may be paid or unpaid positions, but for your time and labor, you'll gain on-the-job experience under the guidance of a supervisor, enhance your qualifications, and make valuable professional contacts.

### Volunteer Work

Volunteer work may not earn you a paycheck, but it pays off in other ways. It looks great on a college application or resume, particularly if your work experience is limited. Like an internship, volunteer work gives you actual work experience and helps you make valuable professional contacts. Hospitals, schools, religious and political groups, child care and senior centers often need and welcome enthusiastic volunteers willing to give their time in exchange for practical experience.

### Part-Time or Temporary Jobs

To many students, part-time and summer jobs are merely a way to earn some pocket money, but they don't have to be. Looking for part-time work related to your long-term career goals is a great way to gain experience, make contacts, and to help you decide if a certain career is right for you. If you haven't yet decided on long-term career goals, part-time jobs provide you with the opportunity to try out several types of work. Your part-time job may mean you have to deal with customers all day long, it may involve sitting in an office for long periods of time, or it may mean performing physically demanding tasks. Is this something you would enjoy doing on a permanent basis? Finding out you don't like something is as important as discovering the things you do enjoy. Remember, even if the part-time job doesn't turn out to be all that you'd hoped for, your good performance can provide you with great references for future positions.



# REALITY CHECK: THE HIGH COST OF LIFESTYLE

“Money doesn’t matter. I just want a job that I enjoy doing.” It’s a phrase one hears all the time when the subject of career planning comes up. But have you ever considered the type of lifestyle your dream job will buy you? Check out the four lifestyles described below, then flip the page you see what you’d need to earn to afford to live that way.

## LIFESTYLE A:

Residence:	Monthly Cost:
Small Apartment/Trailer Rent:	\$500
Utilities/Phone/Etc.:	\$100

Transportation:	
Used Car Payment:	\$100
Vehicle Maintenance, Insurance, & Fuel:	\$150

Other Costs:	
Groceries:	\$250
Clothing:	\$40
Leisure Activities:	\$80
Misc. Household Items, Haircuts, etc.:	\$50

<b>Savings:</b>	\$50
-----------------	------

**Total Monthly Cost of Lifestyle A: \$1,340**

## LIFESTYLE B:

Residence:	MONTHLY COST:
Starter Home Payment/Rent:	\$650
Utilities/Phone/Etc.:	\$195

Transportation:	
Compact Car/Van Payment:	\$250
Vehicle Maintenance, Insurance, & Fuel:	\$150

Other Costs:	
Groceries:	\$300
Clothing:	\$75
Leisure Activities:	\$100
Misc. Household Items, Haircuts, etc.:	\$75

<b>Savings:</b>	\$150
-----------------	-------

**Total Monthly Cost of Lifestyle A: \$2,000**

## LIFESTYLE C:

Residence:	Monthly Cost:
Moderately-Priced House Payment:	\$900
Utilities/Phone/Etc.:	\$270

Transportation:	
4WD Car/Sedan Payment:	\$350
Vehicle Maintenance, Insurance, & Fuel:	\$175

Other Costs:	
Groceries:	\$325
Clothing:	\$100
Leisure Activities:	\$175
Misc. Household Items, Haircuts, etc.:	\$100

<b>Savings:</b>	\$200
-----------------	-------

**Total Monthly Cost of Lifestyle A: \$2,570**

## LIFESTYLE D:

Residence:	Monthly Cost:
High-End Luxury Home Payment:	\$2,500
Utilities/Phone/Etc.:	\$750

Transportation:	
Luxury Automobile Payment:	\$700
Vehicle Maintenance, Insurance, & Fuel:	\$400

Other Costs:	
Groceries/Eating out:	\$800
Clothing:	\$300
Leisure Activities:	\$500
Misc. Household Items, Haircuts, etc.:	\$300

<b>Savings:</b>	\$625
-----------------	-------

**Total Monthly Cost of Lifestyle A: \$6,875**

## GED/High School Diploma

Your job will generally require little or no experience, have few opportunities for advancement, and rarely include retirement or health benefits.

	<b>Monthly:</b>
<b>Wages @ \$7.25/hour:</b>	<b>\$1,160</b>
<b>Taxes, Social Security, Medicare:</b>	<b>-\$175</b>
<b>Retirement Plan:</b> (Generally not available)	<b>\$0</b>
<b>Total Available Income:</b>	<b>\$985</b>



You're gonna need a second job to afford your own place. That or move back in with your folks.

## High School + 2 Year College or Specialty Training

Your job will require experience and prior training (apprenticeship, long term on-the-job training, Associate degree). Health insurance may be provided for employee and retirement plan may be an option.

	<b>Monthly:</b>
<b>Wages @ \$16/hour:</b>	<b>\$2,773</b>
<b>Taxes, Social Security, Medicare:</b>	<b>-\$623</b>
<b>Retirement Plan:</b>	<b>-\$156</b>

**Total Available Income: \$1,994**



You're doing OK for one person, but it will be hard to support a family on your income.

## Specialty Training/Bachelor's Degree

Your job will require work related experience and the equivalent of a Bachelor's degree or beyond. Health Insurance and retirement benefits will generally be available.

	<b>Monthly:</b>
<b>Wages @ \$21/hour:</b>	<b>\$3,640</b>
<b>Taxes, Social Security, Medicare:</b>	<b>-\$910</b>
<b>Retirement Plan:</b>	<b>-\$218</b>

**Total Available Income: \$2,512**



You make a decent living. You don't live in the lap of luxury, but you're comfortable. You may need to advance in your career to put your kids through college or buy a boat.

## Advanced Education/Entrepreneur

Your job will require advanced education and/or extensive skill, high-level decision-making abilities, and responsibility. Or you could become a rock star.

	<b>Monthly:</b>
<b>Wages @ \$70/hour:</b>	<b>\$12,133</b>
<b>Taxes, Social Security, Medicare:</b>	<b>-\$3,640</b>
<b>Retirement Plan:</b>	<b>-\$728</b>

**Total Available Income: \$7,765**



You've made it! You're one of the lucky few. But don't blow your whole fortune on Bentleys and Cristal. You still need to save and invest wisely to maintain this lifestyle into retirement.

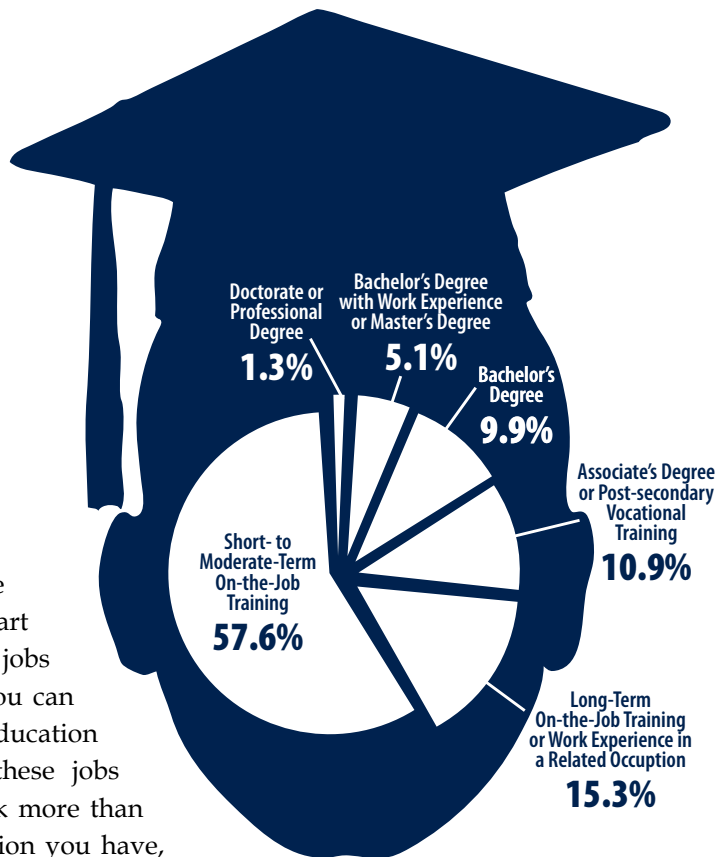


# EDUCATION PAYS

## THE ROAD TO RICHES IS PAVED BY EDUCATION...

...or so the numbers suggest. The chart below shows that your level of education makes a substantial difference in the amount you earn. For example, the average wage for someone with a Bachelor's (four-year) degree is almost twice that of someone working a job requiring only short to moderate-term on-the-job training; while people with doctoral or professional degrees (physicians, lawyers, etc.) earned nearly three times as much. But workers do not need that much education to earn a bigger paycheck; simply completing high school (or earning a GED) increases Montanan's median earnings by \$5,724 (34%) annually, according to the U.S. Census Bureau's 2005-2007 American Community Survey. The numbers don't lie; education pays. The pie chart to the right shows a breakdown of Montana jobs based on education and training levels. As you can see, well over half of the state's jobs require no education beyond high school. Keep in mind that these jobs generally pay less, and many Montanans work more than one job to make ends meet. The more education you have, the greater advantage you'll have in a competitive job market.

## MONTANA JOBS BY TRAINING REQUIREMENTS



## MONTANA MEDIAN WAGES BY TRAINING REQUIREMENT

Doctoral or Professional Degree	\$72,410
Bachelor's Degree with Experience or Master's Degree	\$60,840
Bachelor's Degree	\$45,330
Associate's Degree or Vocational Training	\$38,270
Long-Term On-the-Job Training or Work Experience in a Related Occupation	\$31,740
Short to Moderate-Term On-the-Job Training	\$24,450

# COLLEGE ENTRANCE REQUIREMENTS

Even if you're not sure you want to continue your education after high school, it is a good idea to choose your classes as if you were. That way, if you change your mind later it won't be too late. But what classes should you take? Every college has its own admissions standards, so if you have a specific school in mind, be sure to find out about those standards well in advance, and use them to plan your high school coursework.

But if you don't yet have a school in mind, the best way to prepare is to take the most challenging schedule you can handle. Take advanced placement or honors classes whenever possible. Remember, a B in an honors course can look better to an admissions

officer than an A in a regular course, because it shows you are willing to take on a challenge.

Most admissions offices look for a solid background in English, math, lab sciences, social studies, and foreign languages. If you plan to pursue a specific subject area, such as business or music, take these courses as well. If you have talent in arts or athletics, don't neglect them. A well-balanced application shows both extra-curricular activities and strong academic work.

Don't be tempted to take a less challenging schedule your senior year. It looks bad to admissions officers, and leaves you unprepared for the rigorous work you'll face in college.

## MONTANA UNIVERSITY SYSTEM ADMISSION POLICIES

In order to be admitted to any of the four-year campuses of Montana University System, students must meet a combination of admissions standards, on the MUS website at [http://mus.edu/Prepare/Prepare/MUS\\_Admission\\_Standards.asp#rigorous](http://mus.edu/Prepare/Prepare/MUS_Admission_Standards.asp#rigorous)

- FIRST, Admissions Policy 301.1, requires that students meet one of three minimum requirements:

Minimum admissions exam scores:	ACT Composite	SAT Total
MSU-Northern	20	1440
MSU-Billings & Bozeman	22	1540
UM-Missoula, MT Tech of UM and UM-Western	22	1540

- OR have at least a 2.5 high school GPA (grade point average);
- OR rank in top half of school's graduating class.
- AND, students must satisfy the Mathematics Proficiency standard:

Assessment	Minimum Score
ACT Math	22
SAT Math	520
AP Calculus AB or BC Subject Exam	3
CLEP College Algebra-Trig, Calculus, or Trig	50

- OR Minimum Grades of C in each course of the High School Rigorous Core including 4 years of math and 3 years of science.
- AND, students must satisfy the Writing Proficiency standard:

Assessment	Minimum Score
ACT Writing Subscore on Optional Writing Test or	7
ACT Combined English/Writing Score or	18
Essay Score Writing Section of SAT or	7
SAT Writing Section Score or	440
AP English Language Literature Examination or	3
MUS Writing Assessment or	3.5
CLEP Subject Exam in Composition	50

AND, students must complete the Board of Regents' College Preparatory Program in high school. There are two tracks of college prep courses, the minimum core, established in 1991, and the rigorous core, adopted in 2002 as part of the math proficiency standard. OCHE maintains and posts the lists of each high school's core on the website: <http://mus.edu/asa/hscp/index.asp> Students graduating in 2010 or later must complete the Rigorous Core to be eligible for a Montana University System Honor Scholarship.

Course	Minimum Core	Years
Math	Algebra I, II, and Geometry (or the sequential content equivalent).	3
English	Written and oral communication skills and literature	4
Science	2 lab sciences: one year must be earth science, biology, chemistry or physics	2
Social Studies	Global studies (world history, world geography), American history, and government. Economics, American Indian history or other third-year course	3
Electives	World language, computer science, visual and performing arts, or vocational education	2
Course	Rigorous Core	Years
Math	Algebra I, II, and Geometry (or the sequential content equivalent) and a course beyond Algebra II (such as Trigonometry, Pre-Calculus, Calculus, Computer Math, or course equivalent)	4
English	Written and oral communication skills, literature, and a designated college-prep composition or research-writing course	4
Science	Full year each: General, physical or earth science; biology; chemistry or physics	3
Social Studies	Global studies (world history, world geography), American history, and government. Economics, American Indian history or other third-year course. Recommend: ½ yr of other courses such as psychology, humanities	3
Electives	2 years of a second language, music, fine arts, speech/debate, career and technical education (such as information technology, computer science)	3



## CHOOSING A COLLEGE

Choosing a college can be an intimidating task. The sheer number of schools, both in and out of state, makes it impossible to research them all. Obviously, you'll need to find a school that offers degrees in your area of interest, but there are other factors to consider as well. But where can you get the information you need?

MCIS School Sort will help you sort schools by type, location, educational requirements, and other issues important to you. Then you can check out the schools of interest to you online and send them requests for further information.



## Things to consider when choosing a school:

- **Size of the student body** - larger schools may offer more in terms of resources, facilities, and specialized majors, but smaller schools can be more intimate and you may receive more personal attention.
- **Range of academic majors offered** - A wide range of available majors means that if your area of interest overlaps other disciplines, there will be staff and other students available to help you. And if you decide to change majors, you won't necessarily have to change schools.
- **Location** - Choosing a college located in a city where industry thrives, particularly industry in your areas of interest, can gain you valuable connections and experience in the form of internships and summer jobs. Also consider your leisure time. Would you prefer a bustling metropolis with endless things to do, or a sleepy little town that is just minutes away from a world-class ski slope?
- **Campus Life** - While academics are far and away the most important aspect of college, you won't be studying all the time. So what does the school offer outside the classroom? Is there a fencing club to keep you in practice? Is there an active theatre program? What about community service-oriented groups?
- **Cost and financial aid availability** - Make sure you can afford to attend your college of choice. Find out about the scholarships and other financial options available at each school.
- **Diversity** - College is all about expanding your mind, so why go to a school where everyone shares a similar background? Diversity on a campus exposes students to different points of view, and ways of thinking, and it encourages tolerance in an increasingly globalized culture.
- **Retention and Graduation rates** - Poor retention and graduation rates can signal big problems in a school. If students are dropping out or moving to different schools, there's likely a good reason for it.

## COLLEGE VISITS

You simply can't judge a school by its brochure. Each school has a "feel" to it and college visits can help you know if it is a fit for you, as well as show you what the school has to offer. Here are some tips for making the most of your college visit:

- Choose a date during the week when classes are in session. September/October of your senior year or April/May of your junior year are good times for campus visits.
- Schedule the following: a campus tour, an appointment with an admissions officer, an appointment with a financial aid officer, a tour a campus housing, and appointments to sit in on a couple of classes in your area of interest.
- Be sure to bring: a camera, a map of the campus, a list of questions to ask, such as:

- What tutoring services and study labs are available?
- What kind of internet/computer access is available?
- What is the average class size?
- What meal plans are offered for students living on-campus?
- What housing options are available on campus?
- What social activities/clubs are offered?
- What are the admissions requirements?
- What type of financial aid is available?
- How is the campus laid out?
- How safe is campus? What are the crime rates? What security options are there?
- Any other concerns that will affect your college decision.

## COLLEGE APPLICATION CHECKLIST:

- Get Application
- Check application deadline
- Confirm that you've received the application
- Rank colleges by preference
- Obtain High School Transcript
- Obtain test scores (SAT, ACT, Other)
- Check with school for housing and orientation requirements
- Request letters of recommendation
- Send Thank You's for recommendation letters
- Complete any required essays for the application, and ask two people who write well to help you revise and finalize the essays
- Complete/Submit FAFSA application
- Complete application and make a copy of the completed application for yourself
- Submit application and inform your school counselor that you applied
- Send letter accepting or declining admission
- Accept financial aid



# HIGHER EDUCATION & VOCATIONAL TRAINING

## WHAT TYPE OF TRAINING PROGRAM IS RIGHT FOR YOU?

Too often, high school graduates enroll in a four-year college simply because they don't know what else to do. They end up switching majors, dropping out, or transferring to a different school, all of which means wasted time and money. It is important to have clear career goals so you can choose the right training program the first time around. Many high-paying occupations in Montana require only a two-year degree, which gets students into the workforce in half the time, and often with half the debt. So which type of program is right for you? This guide will give you a basic idea of the types of education and training programs available to you.

### Colleges of Technology

Technical colleges tend to be career-oriented, offering mainly two-year programs that qualify students for employment in various technical fields. They offer associate's degrees, certifications, and specialized endorsements. Montana's colleges of technology are affiliated with the university system, and credits are transferrable should a student decide to transfer to a four-year school.

Montana has four colleges of technology. Those affiliated with Montana State University are located in Billings and Great Falls, and those affiliated with the University of Montana are located in Butte and Helena. Each offers a variety of programs and degrees. These include:

- Accounting
- Associate of Arts
- Automobile Collision Repair & Refinishing
- Aviation Science and Technology
- Business Management
- Computer Technology - Application Development
- Computer Technology - Networking
- Construction Technology
- Diesel Technology
- Drafting & Design Technology
- Electronics
- Fire Science
- Health Sciences - Medical Assistant
- Health Sciences - Paramedics
- Health Sciences - Practical Nursing
- Heating, Ventilation, Air Conditioning, and Refrigeration
- Interior Design
- Radiologic Technology
- Surgical Technology
- Welding & Metal Fabrication
- ...and more

### Community Colleges

Much like technical colleges, community colleges offer two-year degree programs, along with specialized certification programs and endorsements. Community colleges tend to focus on the training needs of a specific community.

In Montana, many community colleges are affiliated with Native American tribes, and serve not only to educate and train the local workforce, but to preserve the traditions and culture of Montana's native peoples.

### Specialized Trade Schools

Trade schools provide short-term programs (less than two years) that prepare students for specific careers, such as law enforcement, cosmetology, taxidermy, and radiology (see list p. 17).

### Liberal Arts Colleges

Liberal Arts schools tend to emphasize broad knowledge in arts, sciences, and humanities rather than focussing on specialized career training. Programs and degrees offered vary widely by institution.

### Public Universities

Universities offer Bachelor's (four-year) degrees in both the arts and sciences. Many also offer Master's, Doctoral, and Professional degrees. Majors and degrees vary widely by institution, so make sure to research a school thoroughly before applying.

# HIGHER EDUCATION & VOCATIONAL TRAINING

## MONTANA COLLEGES & UNIVERSITIES

Blackfeet Community College	P.O. Box 819	Browning, MT 59417-0819	406-338-5441
Carroll College	1601 N. Benton Ave.	Helena, MT 59625-0002	800-992-3648
Chief Dull Knife College	P.O. Box 98	Lame Deer, MT 59043-0098	406-477-6215
Dawson Community College	P.O. Box 421	Glendive, MT 59330-0421	800-821-8320
Flathead Valley Community College (FVCC)	777 Grandview Dr.	Kalispell, MT 59901-2622	406-756-3822
FVCC Libby Campus	225 Commerce Way	Libby, MT 59923	406-293-2721
Fort Belknap College	P.O. Box 159	Harlem, MT 59526-0159	406-353-2607
Fort Peck Community College	P.O. Box 398	Poplar, MT 59255-0398	406-768-6300
Little Big Horn College	1 Forst Lane	Crow Agency, MT 59022-0370	406-638-3104
Miles Community College	2715 Dickinson	Miles City, MT 59301-4774	800-541-9281
Montana Bible College	3625 S. 19th	Bozeman, MT 59718	888-462-2463
Montana State University - Billings	1500 University Dr.	Billings, MT 59101-0298	800-565-6782
MSU - Billings College of Technology	3803 Central Ave.	Billings, MT 59102	406-247-3000
Montana State University - Bozeman	P.O. Box 172190	Bozeman, MT 59717-2190	800-MSU-CATS
MSU - Great Falls College of Technology	2100 16th Ave. S.	Great Falls, MT 59405	800-446-2698
Montana State University Northern	P.O. Box 7751	Havre, MT 59501-7751	800-662-6132
Mountain States Baptist College	216 9th St. N.	Great Falls, MT 59401	406-761-0308
Montana Tech (U of M)	1300 W. Park St.	Butte, MT 59701	800-445-TECH
Rocky Mountain College	1511 Poly Dr.	Billings, MT 59102-1796	800-877-6259
Salish-Kootenai College	P.O. Box 70	Pablo, MT 59855-0117	406-275-4800
Stone Child College	RR1 Box 1082	Box Elder, MT 59521	406-395-4313
University of Great Falls	1301 20th St. S.	Great Falls, MT 59405	800-856-9544
U of M - Butte College of Technology	25 Basin Creek Rd.	Butte, MT 59701	406-496-3707
U of M - Helena College of Technology	1115 Roberts St.	Helena, MT 59601	800-241-4882
University of Montana - Missoula	32 Campus Dr.	Missoula, MT 59812-0002	800-462-8636
U of M - Missoula College of Technology	909 S. Ave. W.	Missoula, MT 59801	800-542-6882
University of Montana - Western	710 S. Atlantic	Dillon, MT 59725-3598	800-UMW-MONT
Yellowstone Baptist College	1515 S. Shiloh Rd.	Billings, MT 59106	800-487-9950

## SPECIALIZED TRADE SCHOOLS

Academy of Cosmetology	133 W. Mendenhall	Bozeman, MT 59715	406-586-2520
Academy of Nail & Skin, LLP	928 Broadwater Ave. Ste. C	Billings, MT 59101	406-252-3232
Anaconda Job Corps Center	1407 Foster Creek Rd.	Anaconda, MT 59711	406-563-8700
Blanco Blanco Cosmetology School	901 24th St. W.	Billings, MT 59102	406-652-2700
Butte Academy of Beauty Culture, Inc.	303 West Park	Butte, MT 59701	406-723-8565
Connole Morton Real Estate School	415 N. Higgins	Missoula, MT 59802	406-543-3269
Crevier's School of Cosmetology	134 First St. W.	Kalispell, MT 59901	406-257-2525
Dahl's College of Beauty	716 Central Ave.	Great Falls, MT 59401	406-454-3453
DAVRON Telco Training, LLC	6635 Sleeping Giant View Dr.	Helena, MT 59602	406-227-1194
H&R Block Income Tax Schools	(7 locations in Montana - visit <a href="http://www.hrblock.com">www.hrblock.com</a> to find a school near you)		
Kickinghorse Job Corps	2000 Mollman Pass Trail	Ronan, MT 59864	406-644-2217
Missoula Valley School of Taxidermy	P.O. Box 1169	Thompson Falls, MT 59873	406-827-3170
Modern Beauty School Inc.	2700 Paxson, Suite G	Missoula, MT 59801	406-721-1800
Montana Guide Training Center	P.O. Box 150	Noxon, MT 59853	406-847-5582 or 406-847-0154
Montana Law Enforcement Academy	2260 Sierra Road E.	Helena, MT 59602	406-444-9950
Montana School of Taxidermy & Tanning	3280 Green Meadow Dr.	Helena, MT 59602	406-443-0022
Sage Technical Services	3044 Hesper Rd.	Billings, MT 59102	406-652-3030
Trapper Creek Job Corps Center	5139 West Fork Rd.	Darby, MT 59829	406-821-3286



# APPRENTICESHIP PROGRAMS

<i><b>Union Apprenticeship Programs</b></i>	<i><b>Address</b></i>		<i><b>Phone #</b></i>
Billings Piping Industry JATC #30	P.O. Box 30616	Billings, MT 59107-0616	406-252-9371
Bricklayers & Allied Craftsmen Local #3	P.O.Box 63	Ramsey, MT 59748	406-544-3027
Butte Automotive Trades	156 W. Granite St.	Butte, MT 59701	406-723-8044
Eagle Electric/Jeff Hoff er	P.O. Box 5324	Helena, MT 59604	406-442-8685
Great Falls Auto & Machinists JAT	4 Eaton Ave.	Great Falls, Mt 59403	406-453-7555
International Union of Elevator Constructors	2112 Thorndyke Ave. W.	Seattle, WA 98199	206-282-4885
Laborers AGC (heavy, highway construction)	3100 Horseshoe Bend	Helena, MT 59601	406-442-9964
Missoula Electric Co-op JATC	1700 W. Broadway	Missoula, MT 59802	406-541-4433
Missoula Plumbing Trades JATC	1026 S. 5th St. W.	Missoula, MT 59801	406-549-3479
Montana Carpenters JATC	780 Carter Dr.	Helena, MT 59601	406-453-1301
Montana-Dakota Utilities JATC	2603 2nd Ave. N.	Billings, MT 59101	701-222-7671
Montana Dept. of Labor & Industry	P.O. Box 1728	Helena, MT 59624	406-444-4100
Montana Electrical JATC	P.O. Box 4177	Helena, MT 59604	406-449-7173
Montana Ironworkers JATC	456 Arthur Ave.	Pocatello, ID 83201	208-705-1703
Montana State Sheet Metal Workers JATC	P.O. Box 4048	Butte, MT 59702	406-533-0112
Mountain States Line Constructors JATC	7001 S. 900 E. Ste. 240	Midvale, UT 84047	801-942-7472
Northwestern Energy	40 E. Broadway	Butte, MT 59701	406-497-2587
Operating Engineers JATC	3110 Canyon Ferry Rd.	East Helena, MT 59604	406-227-5600
Pacific Northwest Ironworkers JATC	16610 E. Euclid	Spokane, WA 99216	509-922-3577
Plumbers and Pipefitters #41 JATC	P.O. Box 3172	Butte, MT 59702	406-494-3051
PPL Montana LLC - Colstrip JATC	P.O. Box 38	Colstrip, MT 59232	406-748-5055
PPL Montana LLC - Corette	P.O. Box 30495	Billings, MT 59107-0495	406-869-5100
PPL Montana LLC - Hydro Division	45 Basin Creek Rd.	Butte, MT 59701	406-533-3415
Qwest JATC	P.O. Box 407	West Yellowstone, MT 59758	406-646-7554
West Central Montana Painters Industry JATC	P.O. Box 666	Great Falls, MT 59403	406-452-0889
Western States Boilermakers #11 JATC	P.O. Box 1612	Page, AZ 59635	406-494-3051

Higher Education is expensive. While it may pay off in the long run, you'll have to pay up front. Some people have college funds set aside by their parents, but most of us will need some help paying for school. Luckily for the rest of us, there are many types of financial aid available.

## WHAT IS FINANCIAL AID?

Simply stated, financial aid is money to help you pay for college. It comes from federal and state governments, banks, the schools themselves, and private donors. Some types of financial aid must be paid back, others do not. Like applying for admission to a school, there are strict deadlines in applying for financial aid, so make sure to find out about these deadlines well in advance.

## WHO CAN GET FINANCIAL AID?

The amount and kind of financial aid you get is based on your financial need, your academic record, and on the kinds of aid available at the school you attend. Each source of financial aid has its unique requirements, so you'll have to do some research to find out what types you are eligible for. Don't assume you won't be eligible. Not all financial aid sources are based on financial need, and most consider a combination of factors.

## WHAT ARE THE DIFFERENT KINDS OF FINANCIAL AID?

### Grants

Grants are money given to you, based on financial need, that you do not repay.

- **The Pell Grant** is a federal award to help undergraduate students pay for education beyond high school.
- **The Supplemental Educational Opportunity Grant (SEOG)** is for undergraduate students with exceptional financial need.
- **Montana Higher Education Grant (MHEG)** awards are based on financial need.
- **MTAP-Baker Grants** are based on financial need and student earnings. Students must have \$2,600 in earnings to be eligible.

### Student Loans

Loans are money that you borrow and repay when you complete or leave school.

- **The Perkins Loan** is a low-interest loan for undergraduate and graduate students with exceptional financial need.
- **The Stafford Loan** is a low-interest loan for undergraduate and graduate students attending school at least half-time.
- **Parent Loans for Undergraduate Students (PLUS)** loans are made to parents of dependent undergraduate students enrolled at least half-time in an eligible school.

### Other loans available

Institutional loans, deferred fee installment programs and short-term loan programs, Bureau of Indian Affairs and tribal loans, health profession loans, The Health Education Assistance Loan, The Health Professions Student Loan, and the Nursing Student Loan Program.

### Scholarships

Scholarships are awarded by a variety of organizations and individuals, and do not need to be repaid. Scholarships may be awarded based on a number of different criteria, including academic performance, financial need, athletic or artistic ability, ethnicity, and field of study.

### Work -Study Programs

Most colleges offer work-study programs, which provide part-time (20 hours or less per week) jobs for students with exceptional financial need. Jobs are usually on campus and are sometimes related to career goals or fields of study.

### Military and Veterans Financial Aid

The U.S. Military offers four main Tuition Support Programs: Tuition Assistance, the Montgomery G.I. Bill, College Fund Programs, and Loan Repayment Programs. R.O.T.C. scholarships are also available. Find out more at [www.todaysmilitary.com](http://www.todaysmilitary.com) and [www.gibill.va.gov](http://www.gibill.va.gov).

# FINANCIAL AID TIPS

- Soon after January 1st (if you're entering school in the fall) submit your Free Application for Federal Student Aid (FAFSA) by mail or on-line at [www.fafsa.ed.gov](http://www.fafsa.ed.gov).
- Each January, if you are planning to be in school next year, apply for financial aid again. Remember, you must reapply each year.
- Register with the Selective Service. It is required by law, and failure to register may prevent you from receiving federal financial aid.
- Drug charges may make you ineligible for federal financial aid.
- Find out about financial aid deadlines well in advance. Failure to meet a deadline may prevent you from entering school on time.
- If you are under 23, you will need to provide information about your parents' finances on most financial aid applications. Sit down with your parents and compile this information so you can use it on applications.
- Keep copies of all your admissions and financial aid documents.
- Contact the financial aid offices of prospective schools and request information on grants and scholarships available through the school.
- If you take out multiple student loans, you may find it easier to pay them off if you consolidate them into one monthly payment. For more information, visit [www.loanconsolidation.ed.gov](http://www.loanconsolidation.ed.gov), or the Student Assistance Foundation's website at [www.safmt.org](http://www.safmt.org).

## TAX CREDITS

Tax benefits can also help to lower the cost of your continuing education. Income restrictions may apply.

### American Opportunity Tax Credit

Provides a maximum tax credit of \$2,500 per eligible student per year to help cover the first two years of qualified expenses.

### Lifetime Learning Tax Credit

Provides a maximum benefit of \$2,000 per family for all undergraduates and graduate study for qualified expenses.

### Student Loan Interest Deduction

Allows you to deduct up to \$2,500 in student loan interest on your taxes. Includes loans used for higher education expenses at eligible institutions, including graduate schools.

## PAYING FOR COLLEGE CHECKLIST:

- Talk with your counselor - Tell them your plans, ask for financial aid options, make sure you're on track with the courses you're taking, get your transcripts, GPA, and class rank, and ask for any other advice they might have.
- Use MCIS Financial Aid Sort to search for scholarship and grant opportunities. Search multiple times with different criteria. Apply for any and all that you qualify for. Lots of money goes unawarded due to lack of applications.
- Apply for a Federal Student PIN number, which can be used each year to electronically apply for federal student aid and to access your Federal Students Aid records online. Get your PIN at [www.pin.ed.gov](http://www.pin.ed.gov).
- Talk to everyone you know, you never know where you might learn about scholarship opportunities.
- Make proposals to organizations or businesses you are involved with for scholarship money. Even if they don't offer scholarships, they might give you one simply because you asked.



## IN-DEMAND JOB SKILLS

The days when a career was a lifetime commitment are long over. The U.S. Department of Labor estimates that Americans will have an average of 3.5 different careers in their lives, and work for ten employers, keeping each job for 3.5 years. This refers not to specific jobs, but entire career paths. When entering an entirely new field, in which one has little to no experience, the skills acquired through unrelated jobs and life experiences can be a major selling point on a resume. But which skills are Montana employers looking for in applicants?

### The Basics:

Unsurprisingly, basic skills top the list, since they are required for most jobs. **Reading Comprehension, Active Listening, Speaking, Critical Thinking, and Writing** occupy the top 5 spots. A person will acquire some skill in the basics from high school and work experience. Postsecondary education will give an applicant a competitive edge, regardless of major. College experience also shows a willingness to learn, fulfilling skill #6: **Active Learning**.

### #1 Reading Comprehension

Understanding written sentences and paragraphs in work related documents.

### #2 Active Listening

Giving full attention to what other people are saying, taking time to understand the points being made, asking questions as appropriate, and not interrupting at inappropriate times.

### #3 Speaking

Talking to others to convey information effectively.



### #4 Critical Thinking

Using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.

### #5 Writing

Communicating effectively in writing as appropriate for the needs of the audience.



### #6 Active Learning

Understanding the implications of new information for both current and future problem-solving and decision-making.

### #7 Judgment & Decision Making

Considering the relative costs and benefits of potential actions to choose the most appropriate one.

### #8 Mathematics

Using mathematics to solve problems.

### #9 Science

Using scientific rules and methods to solve problems.

## SKILLS

**Mathematics** and **Science** also rank high on the list. Many high-wage occupations require a degree in math or science. For instance, Accountants and Auditors, Financial Examiners, Chemists, Microbiologists, and Wildlife Biologists all require varying levels of postsecondary education in math and science.

### #10 Complex Problem Solving

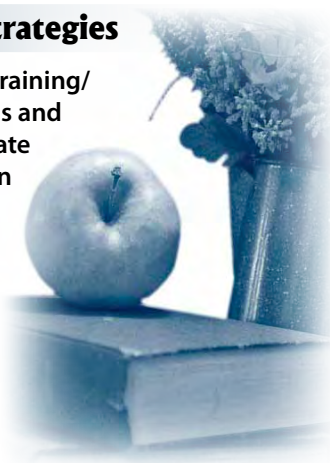
Identifying complex problems and reviewing related information to develop and evaluate options and implement solutions.

### #11 Learning Strategies

Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.

### #12 Instructing

Teaching others how to do something.



**Learning Strategies** and **Instructing** skills can also be acquired in college, especially in Masters and Doctoral programs which give the opportunity for graduate students to teach lower level courses. Even if one is pursuing a career other than teaching, experience in a teaching assistantship proves valuable on a resume, since many professional positions require employees to train other employees, or to instruct the public. Some Dietitians and Nutritionists, for example, travel to schools, workplaces, and other institutions, giving presentations on how to eat smart and stay healthy. Most employers encourage lifetime learning, which may include personal research. Lawyers need to be highly skilled in **Learning Strategies**, since much of their work requires research, and they must keep current with the latest laws and legal precedents.

**Monitoring** is a skill useful for people in management and analysis occupations such as Management Analysts, Medical and Health Services Managers, Natural Science Managers, Network Systems and Data Communications Analysts, and Market Research Analysts. However, the ability to assess the performance of oneself and others has applications in a wide variety of jobs. Educational, Vocational, and School Counselors, Postsecondary English and Literature Teachers, and Compliance Officers all benefit from this skill.

**Operations Analysis** is the only technical skill to make the top fifteen. High importance is placed on this skill in occupations ranging from Computer Software Engineers and Network Systems Analysts to Natural Science Managers and Foresters. Operations Analysis made the list because it is required not only in high technology occupations, but in many other management and science fields. Occupations in technology tend to require high levels of other technical skills that did not make the list, such as **Programming and Technology Design**.

### #13 Monitoring

Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action.

### #14 Operations Analysis

Analyzing needs and product requirements to create a design.

### #15 Coordination

Adjusting actions in relation to others' actions.

Who knows what new career paths the future will bring? The best source of job security in the new economy is the individual development of skills. Identifying the skills valued most by employers will help individuals to invest their training time wisely, and allow colleges and vo-techs to develop curriculums which will best benefit students seeking employment and businesses that need a labor force trained in the most applicable skills.

## THE JOB SEARCH

When most people think about looking for a job, they think of newspaper want ads. The truth is that 80 to 90% of all job openings are never advertised.<sup>1</sup>

You might ask, “Then how do people ever find jobs?” The answer is **Networking**. In today’s job market, it really is all about who you know. If this doesn’t seem fair, remember that there is nothing stopping you from getting out there and meeting people in your field. In fact, that is your best bet when it comes to job hunting.

### Making Connections

If you feel you’re not especially “well-connected,” consider that everyone you know, from family to friends to teachers, are “connections.” Start your job search by telling everyone you know that you are looking for a job. They have connections of their own, and you never know who might have heard about a job opening.

But don’t stop with people you already know. Find out which companies hire workers in your chosen profession and introduce yourself to the human resources director, or whoever makes hiring decisions. Let them know you are interested in their company, tell them what type of job you are looking for, and ask whether any positions are available, or will be available soon. Even if they don’t have any openings, offer them a copy of your resume, and ask for a business card. You’ve just made a connection! The next time a position opens up, they just might remember you, especially if you check back with them from time to time and let them know you are still interested.

Also consider joining a social or professional organization. Chances are, someone in your local rotary organization, church, or soccer club works for a company that is hiring. Remember, the more people you know, the more likely that someone will give you the lead that lands you a job.

As important as it is to make professional connections, don’t rule out job postings altogether. There are many different ways to look for jobs, and the more methods you try, the more likely you are to succeed.

### Internet Job Search Engines

The Internet offers an ideal way to bring employers and employees together because information can be shared so quickly and easily. There are thousands of web sites on the Internet where you can post your resume or look for openings. Two of your best sources are Montana JobLINC at [www.mtjoblinc.com](http://www.mtjoblinc.com) or Job Central at [www.jobcentral.com/states.asp](http://www.jobcentral.com/states.asp).

### Job Service Workforce Centers

Some of the most valuable resources for Montana job seekers are the Job Service Workforce Centers located throughout the state. Not only can they help you find job openings, Job Service staff can help you identify your skills, write resumes and cover letters, prepare for interviews, provide clerical and aptitude testing, and offer career counseling for those not sure of their future employment plans. They also have computers and software to aid your search, as well as printers, telephones, fax machines, and a library of books and career videos.

If you utilize your local Job Service Workforce Center, remember to BE PREPARED. You can expect to fill out a job application or register on the web, so you’ll need to bring the following information:

- **Your current address and phone number**
- **Your Social Security Number**
- **Names, addresses, and phone numbers of previous employers**
- **Dates of previous employment**
- **Names, addresses and phone numbers of three personal references**
- **Other relevant information, such as your driver’s license number, union cards, copies of transcripts, or military discharge papers**

<sup>1</sup>From the North Dakota Career Resource Network’s “Career Outlook 2005-2006” [www.NDCRN.com](http://www.NDCRN.com).



# JOB SERVICE WORKFORCE CENTER LOCATIONS

You will also be interviewed by a Job Service consultant to determine your qualifications. There's a chance you'll be sent to a job interview directly from the Job Service Workforce Center, so dress appropriately.

Montana's Job Service Workforce Centers can be found in the following locations:

## **Anaconda**

307 East Park  
Anaconda, MT 59711  
Phone: 406-563-3444  
Fax: 406-563-7827  
Job Hot-Line: 406-563-7826  
E-mail: anacondajsc@mt.gov

## **Billings**

2121-B Rosebud Drive  
Billings, MT 59102  
Phone: 406-652-3080  
Fax: 406-652-0444  
E-mail: billingsjsc@mt.gov

## **Bozeman**

121 North Willson  
Bozeman, MT 59715  
Phone: 406-582-9200  
Fax: 406-582-9210  
E-mail: bozemanjsc@mt.gov

## **Butte**

2201 White Blvd.  
Butte, MT 59701  
Phone: 406-494-0300  
Fax: 406-494-5481  
Job Hot-line: 406-494-0338  
E-mail: buttejsc@mt.gov

## **Cut Bank**

501 East Main  
Cut Bank, MT 59427  
Phone: 406-873-2191  
Fax: 406-873-5393  
Job Hot-Line: 406-873-4407  
E-mail: cutbankjsc@mt.gov

## **Dillon**

730 North Montana  
CL #4  
Dillon, MT 59725  
Phone: 406-683-4259  
Fax: 406-683-2903  
Job Hot-Line: 406-683-4737  
E-mail: dillonjsc@mt.gov

## **Glasgow**

74 4th Street North  
Glasgow, MT 59230  
Phone: 406-228-9369  
Fax: 406-228-8793  
Job Hot-Line: 406-228-9523  
E-mail: glasgowjsc@mt.gov

## **Glendive**

211 South Kendrick  
Glendive, MT 59330  
Phone: 406-377-3314  
Fax: 406-377-5831  
Job Hot-Line: 406-377-5823  
E-mail: glendivejsc@mt.gov

## **Great Falls**

1018 7th Street S.  
Great Falls, MT 59405  
Phone: 406-791-5800  
Fax: 406-791-5889  
Job Hot-Line: 406-453-5556  
TDD: 406-791-5882  
E-mail: greatfallsjsc@mt.gov

## **Hamilton**

274 Old Corvallis Road, Suite D  
Hamilton, MT 59840  
Phone: 406-363-1822  
Fax: 406-265-1386  
E-mail: hamiltonjsc@mt.gov

## **Havre**

160 First Avenue  
Havre, MT 59501  
Phone: 406-265-5847  
Fax: 406-265-1386  
Job Hot-Line: 406-265-1587  
E-mail: havrejsc@mt.gov

## **Helena**

715 Front Street  
Helena, MT 59601  
Phone: 406-447-3200  
Fax: 406-447-3224  
Job Hot-Line: 406-447-3222  
E-mail: helenajsc@mt.gov

## **Kalispell**

427 First Avenue E.  
Kalispell, MT 59901  
Phone: 406-758-6200  
Fax: 406-758-6290  
TDD: 406-758-6224  
E-mail: kalispelljsc@mt.gov

## **Lewistown**

300 First Avenue North  
Lewistown, MT 59457  
Phone: 406-538-8701  
Fax: 406-538-7249  
E-mail: lewistownjsc@mt.gov

## **Libby**

417 Mineral, Suite 4  
Libby, MT 59923  
Phone: 406-293-6282  
Fax: 406-293-5134  
Job Hot-Line: 406-293-6282  
Press option 1  
E-mail: libbyjsc@mt.gov

## **Livingston**

220 E. Park  
Livingston, MT 59047  
Phone: 406-222-0520  
Fax: 406-222-1593  
Job Hot-Line: 406-222-0533  
E-mail: livingstonjsc@mt.gov

## **Miles City**

12 North 10th Street  
Box 1786  
Miles City, MT 59301  
Phone: 406-232-8340  
Fax: 406-232-6270  
Job Hot-Line: 406-232-6350  
E-mail: miles-cityjsc@mt.gov

## **Missoula**

539 S. Third Street W  
P.O. Box 5027  
Missoula, MT 59806  
Phone: 406-728-7060  
Fax: 406-721-7094  
E-mail: missoulajsc@mt.gov

## **Polson**

417-B Main  
P.O. Box 970  
Polson, MT 59860  
Phone: 406-883-7880  
Fax: 406-883-4564  
Job Hot-Line: 406-883-3311  
E-mail: polsonjsc@mt.gov

## **Shelby**

202 Main St.  
Shelby, MT 59474  
Phone: 406-434-5161  
Fax: 406-434-2351  
Job Hot-Line: 406-434-5045  
E-mail: shelbyjsc@mt.gov

## **Sidney**

211 North Central  
Sidney, MT 59270  
Phone: 406-433-1204  
Fax: 406-433-7453  
Job Hot-Line: 406-433-6665  
E-mail: sidneyjsc@mt.gov

## **Thompson Falls**

2504 Tradewinds Way, Suite 1  
P.O. Box 669  
Thompson Falls, MT 59873  
Phone: 406-827-3472  
Fax: 406-827-3327  
Job Hot-Line: 406-827-4562  
E-mail: ThompsonFallsJSC@mt.gov

## **Wolf Point**

201 Main Street  
Wolf Point, MT 59201  
Phone: 406-653-1720  
Fax: 406-653-1196  
Job Hot-Line: 406-653-1194  
E-mail: wolfpointjsc@mt.gov

**For links to the individual Job Service Workforce Centers' websites, go to <http://wsd.dli.mt.gov/service/officelist.asp>**

In most aspects of life, modesty is an important quality to possess. But it has no place in your job search. Chances are, your dream job will have many qualified applicants. If you want to convince the prospective employer that you are the best fit for the position, you must learn to market yourself. Don't downplay your accomplishments. Advertise them.

But what if your work history is less than spectacular. Perhaps you have no prior work experience, or you're been raising a family and haven't been employed in ten years? This is when marketing yourself becomes crucial. You can make up for your lack of work experience by focussing on your skills.

More and more employers consider the "soft skills" the most important ones to look for in a prospective employee. "Soft skills" are personal qualities, habits, and attitudes that are not necessarily acquired from work experience, but ones that make you a good employee. Some of the most important ones include reliability, flexibility, problem-solving, and communication skills.

One of the first things you should do to prepare for your job search is to identify your skills. Start by listing the following:

- Any previous employment
- Volunteer work
- Education
- Hobbies
- Day-to-day tasks
- Other experience involving skills

Now think about the tasks and duties involved in each of the items on your list. What skills did you learn and utilize for each activity? If you're having trouble recognizing your skills, the Montana Career Information System (MCIS) is a great resource. MCIS's Micro-SKILLS program takes you through the entire process of evaluating your skills.

Once you know what skills you have, you can begin matching them to specific jobs. Once again, MCIS can help. It allows you to select a specific occupation and find out which skills are the most important in that job. Knowing what skills an employer is looking for, and being able to match them up with your experience allows you to customize your resume to suit each position for which you apply. The following scenarios will demonstrate how this is done.

## Situation #1

You are a high school student applying for a job in a retail store. You have no prior work experience because you have been so actively involved in extra-curricular activities, such as student government, forensics, and volunteer work at the local animal shelter. You may think you have nothing to market, but think again (see box below).

For every check mark, you have another skill you can advertise in your cover letter and resume, as well as in the job interview. Marketing yourself in this way will give you the advantage over equally-experienced candidates who did not make the same effort.

### Student Government

- Teamwork ✓
- Working with the public ✓
- Listening ✓
- Speaking ✓
- Information gathering
- Evaluating
- Synthesizing
- Planning
- Analyzing
- Negotiating ✓
- Leading
- Decision Making
- Managing Resources ✓

### Forensics

- Speaking ✓
- Listening ✓
- Verifying information ✓
- Competitiveness ✓
- Independent work
- Information gathering
- Persuading
- Using knowledge ✓

### Animal Shelter

- Dependability ✓
- Teamwork ✓
- Working with the public ✓
- Assisting/caring ✓



# MARKETING YOURSELF

## Situation #2

You spent many years raising a family and now you need to get back into the workforce. You haven't worked for an employer in ten years so giving work-related references to a prospective employer is hard to do. But remember, raising a family takes a multitude of skills that often are underappreciated. If you were to apply for a job as a bank teller, what skills would be transferable?

The figure below shows the top 35 skills for bank tellers. Notice how many match the skills that the individual in situation #2 demonstrates that she possesses (see box to the right).

If you take the time to do this type of self-exploration, not only will you uncover skills you didn't know you had, you will gain confidence in your ability to market yourself to an employer. Once you develop this skill you will use it over and over again throughout your working life.

### Household Finances

- Record keeping ✓
- Attention to detail ✓
- Categorizing ✓
- Verifying information ✓
- Using computers ✓
- Calculating ✓
- Estimating ✓
- Budgeting ✓
- Math reasoning ✓
- Evaluating ✓
- Analyzing ✓
- Using knowledge ✓
- Planning
- Decision making
- Managing resources



### Raising Children

- Dependability ✓
- Flexibility ✓
- Assisting/Caring
- Stamina ✓
- Rapid Response ✓
- Stress Tolerance ✓
- Listening ✓
- Advising
- Safety of others
- Directing/leading ✓
- Impact of responsibility

## BANK TELLER TOP 35 SKILLS

Skills to Select			5 Very Satisfying Skills	20 Somewhat Satisfying Skills
	25.Creativity	49.Science Reasoning	Very	Somewhat
	26.Aesthetic Judgment			
06.Competitiveness	28.Hazards Tolerance		10.Working with the Public	01.Dependability
	29.Discomfort Tolerance		31.Following Procedures	02.Flexibility
			33.Record Keeping	03.Persistence
			34.Attention to Detail	04.Integrity
			42.Using Computers	05.Efficiency
				07.Social Perception
11.Assisting/Caring		58.Synthesizing	10 Moderately Satisfying Skills	08.Independent Work
12.Performing	36.Installing	60.Planning	Moderately	09.Team Work
13.Instructing	37.Inspecting			27.Stress Tolerance
	38.Repairing		14.Finger Dexterity	30.Repetition Tolerance
16.Motor Coordination	39.Troubleshooting	63.Safety of Others	15.Manual Dexterity	48.Math Reasoning
17.Stamina	40.Controlling Machines	64.Persuading	32.Categorizing	50.Reading
18.Strength	41.Operating Vehicles	65.Negotiating	35.Verifying Information	51.Writing
19.Rapid Response			45.Calculating	54.Concentrating
20.Sound Discrimination	43.Programming	67.Initiating	52.Speaking	55.Information Gathering
21.Shape Discrimination	44.Technology Design	68.Coordinating	53.Listening	56.Evaluating
22.Color Vision	46.Estimating	69.Directing/Leading	57.Advising	59.Analyzing
23.Depth Perception	47.Budgeting	71.Managing Resources	62.Using Knowledge	61.Active Learning
24.Visualizing			70.Decision Making	66.Confronting
				72.Impact of Responsibility

Screen shot from MCIS's Micro-SKILLS assessment

## WHAT IS A COVER LETTER?

A cover letter is a letter of introduction and expression of interest that you send to a prospective employer, along with your resume. Cover letters are, in some ways, more important than resumes. While resumes summarize your qualifications, cover letters should sell you to the employer. You want the letter to convince the employer to take action on your resume and invite you for an interview.

- The cover letter should be addressed to a specific person. If you don't know the person's name and title, call and ask.
- The cover letter should briefly explain why you are interested in the company and what you can contribute to the team.
- A cover letter should not merely repeat the contents of the resume; it should highlight only the most important parts of your resume, and expand on them.
- The cover letter should be brief and to the point. It should not go over one page.
- Don't use jargon or be too technical.
- A cover letter has three sections: the introduction, middle, and ending. Normally each section is limited to one brief paragraph.
- The most important point to get across in the introduction (first paragraph) is your reason for writing. (See sample cover letter.)
- The middle (second paragraph) covers your main qualifications and accomplishments, and the reasons you are interested in the job.
- The ending (last paragraph) is a request for an interview. One option is to restate your interest in the job or that you will call next week to see about setting a time for an interview.
- It is always important to follow up your letter with a phone call to make sure they received your application packet and to see where they are in the hiring process.

March 29, 2007

Mr. Kenneth D. Wilson  
Personnel Manager Kwick Litho Service, Inc.  
1405 Bridge Street  
Missoula, MT 59851

Dear Mr. Wilson:

Yesterday, I talked with Mark Andersen, your representative at the Missoula job fair. From our conversation, I became very interested in applying for the offset press operator position. Kwick Litho Service, Inc. is a leader in the full-service printing operation and I am eager to offer my skills in graphic design and production.

Currently, I am enrolled in graphic production classes at The University of Montana. My course work has included a full range of printing tasks including design, three-color offset and web press operation, and the use of pre-sensitized and direct-image plates. After completing these courses next month, I would like the opportunity to put my training into practice in a position such as the one that you have advertised.

Would it be possible to schedule a time when I might visit you? I would like to talk with you about my qualifications and my interest in working for Kwick Litho Service.

Sincerely yours,

(skip four spaces for your signature)

Daniel Heidelberg  
304 Newbury Street  
Missoula, MT 58512  
Phone: 406.555.6789

*Example letter created by intoCareers of the University of Oregon.*



A resume is a summary of your work experience and skills that employers look at to decide whether or not to grant you an interview. It is not a list of all the jobs you have ever held, but a statement of qualifications tailored to suit the specific job for which you are applying.

## TYPES OF RESUMES

### Chronological Resume

The chronological resume lists work experience starting with your most recent experience first. This is the most popular type of resume, and employers are most familiar with this style. This style is good to use when you have a steady work history and your work experience is relevant to the job you are seeking.

### Functional Resume

Functional resumes summarize and stress skills and abilities, rather than your work history. This type of resume is good if you have little work experience, do not have a steady work history, or want to change careers.

## RESUME WRITING TIPS

- State a specific career objective.
- List your achievements. They are more impressive than vague qualities like “good work ethic.”
- Keep it brief and to the point. One page of well-organized career highlights looks better than three pages of unnecessary details.
- Appearance is important. Do not crowd the page with long paragraphs. Print it on high-quality resume paper, and proofread it several times to make sure it is perfect.
- Try not to use the expressions “responsible for” or “duties included.” Instead use action verbs such as “assisted customers,” and “repaired engines.”
- Don’t exaggerate your qualifications. Employers check your references, and you can lose your job if you are hired based on false statements.
- Try using the Resume Builder feature on MCIS. Create or log in to your portfolio, then click “My Education and Work History.”

### SAMPLE CHRONOLOGICAL RESUME

**GAIL BELL CAMP**  
212 Maple Lane  
Helena, MT 59624  
(406) 555-2377 (home)  
(406) 555-2389 (message)

#### OBJECTIVE

Full-time work as an Assistant Accountant.

#### EXPERIENCE

Accounting Clerk, Helena College of Technology. February 1998 to present

- Maintained accounts payable and receivable, general ledger, and payroll for an operations budget of \$700,000.
- Implemented new ledger process and management procedures that saved employee and management time.

Machine Forming Operator. ABC Company, May 1990 to October 1998.

- Read complex blueprint specifications to assemble, install, and align dies in press.
- Inspected work for conformance to specifications and made necessary adjustments
- Received Zero Percent Error Award, 1996, 1997.

Machine Tool Cutting Operator. ABC Company, March 1986 to May 1990.

- Planned work process and sequence of operations using blueprints and layouts.
- Set up and operated automated cutting machines.
- Performed routine maintenance, decreasing breakdowns by 40%.

#### EDUCATION

Associate of Applied Science, Accounting Technology. July 1989 to December 1989. Montana State University, Billings, MT.

#### COMPUTER SKILLS

Lotus 1-2-3, Microsoft Excel.

#### REFERENCES

Available upon request.

### SAMPLE FUNCTIONAL OR SKILLS RESUME

**JAN MOSSIER**  
1140 Franklin Boulevard  
Gardiner, Montana 59030  
Home Phone: (406) 555-3773  
Message Phone: (406) 555-2224

#### OBJECTIVE

To gain a technician assistant position in computer manufacturing.

#### SUMMARY OF SKILLS

- Able to solve and repair electronic equipment.
- Contribute to teams and create good work relationships.
- Energetic, hardworking, willing to learn.
- Basic understanding of IBM.

#### EXPERIENCE

##### ELECTRICAL SKILLS

- Built a TV scrambler from a circuit board in electronics class.
- Rewired lamps, repaired plumbing and appliances in home maintenance projects.
- Operated power tools (saws, drills, sanders) to cut and help frame buildings.

##### BUSINESS SKILLS

- Tracked and priced inventory with team to improve product availability to customers in a grocery store.
- Greeted customers and helped them to find hard-to-locate items. Cashiered and calculated cash flow at the end of each shift.

##### COMPUTER SKILLS

- Set up and entered personal budget on Excel, using IBM computer.

#### EMPLOYMENT HISTORY

Stock Clerk/Cashier. Sunny's Market 1999-Present  
Construction Helper. The Builder's Group Summers 1996-1998

#### EDUCATION

Gardiner High School, Gardiner MT 1999  
Related courses: drafting, basic electronics, management

Example resumes created by intoCareers of the University of Oregon.



## TIPS FOR A SUCCESSFUL JOB INTERVIEW



The interview is your opportunity to personally convince the employer you are the best person for the job. They have already read your resume, now they want to see how you conduct yourself in person. The most important thing to do in the interview is to project a positive attitude. According to employers, promising employees are those who are enthusiastic, friendly, motivated, and willing to accept tasks pleasantly. Show your interviewer that you are this kind of employee.

### ➤ **RESEARCH THE COMPANY**

Find out as much as you can about the company

### ➤ **EXPLAIN YOUR EXAMPLES IN DETAIL**

Use the S.T.A.R. method to answer questions\*

### \* **The S.T.A.R. Method:**

#### **Situation**

*Explain the situation*

#### **Task**

*Explain your task or role*

#### **Action**

*What action did you take?*

#### **Results**

*What resulted from your action?*

### ➤ **LOOK YOUR BEST**

Your clothes should be neat and appropriate  
You should be well-groomed  
No heavy perfume or cologne

### ➤ **BE PREPARED**

Bring a copy of your resume, references, samples of work if appropriate

### Commonly asked interview questions:

- ✦ ***Tell me a little about yourself***
- ✦ ***What are your strengths?***
- ✦ ***What are your weaknesses?***
- ✦ ***Why do you want to work here?***
- ✦ ***Tell me about your most recent job.***
- ✦ ***Why did you leave your last job?***

### ➤ **ARRIVE EARLY**

Make sure you know how to get to the interview and arrive 10 minutes early

### ➤ **BODY LANGUAGE**

Look the interviewer in the eye, but don't stare  
Sit up straight and act alert  
Don't chew gum or smoke  
Smile when appropriate

### ➤ **BE ENTHUSIASTIC**

Show genuine interest in the job

### ➤ **USE DISCRETION**

Be honest in your answers but steer away from troublesome areas

### ➤ **ASK QUESTIONS**

Ask questions that will help you decide if the position is suitable for you

### ➤ **SUBJECTS TO AVOID:**

Don't mention financial or personal problems  
Don't speak ill of previous employers  
Don't mention salary or benefits

### ➤ **REMEMBER TO THANK YOUR INTERVIEWER**



## ***TAKE CONTROL OF YOUR FUTURE WITH A “PEP TALK” PERSONALIZED EMPLOYMENT PLAN***

### **What is PEP Talk?**

PEP Talk is a program that encourages clients to develop long-term employment plans that capitalize on their personal strengths and interests. This kind of career planning leads to increased job satisfaction, lower turnover, and in most cases, higher wages. However, career planning can be overwhelming for people faced with getting bills paid and putting food on the table. PEP Talk simplifies the career planning process, making it manageable for clients by walking them through each step of the process.

### **Who is PEP Talk for?**

Many segments of the population can benefit from PEP Talk, including:

- Someone with years of work experience in a declining industry who has been laid off
- An injured worker seeking a new line of work through vocational rehabilitation
- A person who never graduated from high school
- An individual with limited employment success, switching jobs often or dreading going to work
- A currently employed person who wants to find a more satisfying career
- A multiple job-holder who needs to find a better paying job
- Someone who has been out of the workforce for awhile, such as a stay-at-home mom, a retired person, or someone who has been incarcerated.

### **Where can I find PEP Talk?**

Staff members at PEP Talk participating agencies are ready to coach individuals and help them formulate their winning strategies. Participating agencies include local Job Service Workforce Centers, One-Stop Centers, Adult Basic Education offices, Human Resources Development Councils, 2-year schools, and more. A complete list of participating agencies for each community can be found at any of the above agencies.

Individuals can also go through the PEP Talk process on their own using PEP Talk's free online resources, such as the PEP Talk Blueprint and training modules. The PEP Talk Blueprint acts as the master set of instructions for the Personalized Employment Plan and contains some of the assessment tools that will be used (the other assessment tools are within MCIS). With the training modules, we have taken advantage of the 24/7 nature of the internet to provide e-learning resources. These online resources can be found at [www.careers.mt.gov](http://www.careers.mt.gov).

## WHAT'S KEEPING YOU FROM YOUR CAREER?

Finding a job is not easy, and many of us face additional obstacles to being hired. Whether your obstacle is a disability, your age, or your situation in life, resources exist to help you find employment. The table below lists some of those resources.

Group	Description	Where can I go?
Adults Facing Barriers to Employment	Adults (22 years and older) who face barriers to employment and who are seeking assistance under the Workforce Investment Act.	Statewide Workforce Programs Ph: (406) 444-4571 Fax: (406) 444-3037 E-mail: <a href="mailto:wia@mt.gov">wia@mt.gov</a> <a href="http://www.wsd.dli.mt.gov">www.wsd.dli.mt.gov</a>
Adults without a high school diploma or GED	Adults (16 and older) who are not enrolled in, or are not required to be enrolled in, secondary school, who lack sufficient mastery of basic skills, a high school diploma, or basic English skills.	Adult Basic and Literacy Education (ABLE) Ph: (406) 444-4443 <a href="http://opi.mt.gov/Programs/CTAE/ABE.html">http://opi.mt.gov/Programs/CTAE/ABE.html</a>
Blind Persons and Individuals with Physical or Mental Disabilities	Persons with any physical or mental disability that makes it difficult to find or keep a job.	Disability Services Division 111 Sanders Suite 305 PO Box 4210 Helena, MT 59604-4210 1-877-296-1197 <a href="http://www.dphhs.mt.gov/dsd">www.dphhs.mt.gov/dsd</a>
Dislocated Workers	Individuals who have been terminated or laid off generally due to plant closures or downsizing.	WIA Dislocated Worker Program Ph: (406) 444-4100 Fax: (406) 444-3037 E-mail: <a href="mailto:wia@mt.gov">wia@mt.gov</a> <a href="http://www.wsd.dli.mt.gov/wia/wiadislocatedworker.asp">www.wsd.dli.mt.gov/wia/wiadislocatedworker.asp</a>
Injured Workers	Workers who have been injured on the job	Employment Relations Division Department of Labor and Industry P. O. Box 8011 Helena, MT 59604-8011 Ph: (406) 444-9586 or 444-6532
Older Workers	Individuals 55 years or older who are economically disadvantaged.	Montana Senior & Long Term Care 1-800-332-2272/406-444-2995 (TDD) <a href="http://dphhs.mt.gov/sltc/">dphhs.mt.gov/sltc/</a>
Veterans	Veterans who have served 180+ consecutive days on active duty, were released due to a related illness or injury, or have been in the National Guard or Reserves and were called to active duty during a war.	Contact your local Job Service Workforce Center (see page 19 for locations). <a href="http://www.wsd.dli.mt.gov">www.wsd.dli.mt.gov</a>
Displaced Homemakers	Individuals who have been dependent upon someone else for support and who through death, disability of a spouse, or divorce no longer have such support.	State Displaced Homemaker Program Ph: (406) 444-4571 Fax: (406) 444-3037 E-mail: <a href="mailto:wia@mt.gov">wia@mt.gov</a> <a href="http://www.wsd.dli.mt.gov/wia/homemaker.asp">www.wsd.dli.mt.gov/wia/homemaker.asp</a>
Youth	In school youth ages 14 to 21, and out-of-school youth ages 16 to 21.	WIA Youth Program Ph: (406) 444-4571 Fax: (406) 444-3037 E-mail: <a href="mailto:wia@mt.gov">wia@mt.gov</a> <a href="http://www.wsd.dli.mt.gov/wia/wiayouth.asp">www.wsd.dli.mt.gov/wia/wiayouth.asp</a>



# OCCUPATIONS GUIDE

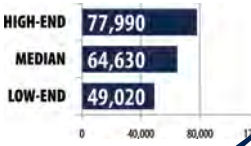

If there's one message to take away from this guide, it's that getting the kind of career you want takes planning. Whether you already know what you want to do, or have no idea what kinds of jobs are out there, our Occupations Guide will help you make informed career decisions.

## Here's how it works:

The Occupations Guide lists Montana jobs with significant employment levels and breaks them into sixteen major "Career Clusters," or groupings of

interrelated occupations. Each section begins with an introduction that explains what kind of jobs and activities are included, and what the employment outlook is for that occupational group.

The bulk of the occupations guide consists of tables that provide information on specific occupations within each cluster. The occupations are ordered by the level of training they require. A sample table appears below:

Occupation Title	Interest Profile	Job Description	Wages	Outlook
<b>Bachelor's Degree or Higher, plus Work Experience in a Related Field</b>				
<b>Natural sciences managers</b>	<b>IER</b>	Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.		 <b>Projected Annual Average Openings: 11</b>

Use the Interest Profile to match your interest code (see pages 5-7) to specific occupations.

Find out about the duties and activities of jobs you never even knew existed. Even if you think you know what you want to do, you may find an occupation even better suited to your interests and abilities

Can you have the kind of lifestyle you want working in your chosen profession? Use the wages chart to find out.

Is this occupation growing? How fast? The symbols in the outlook column provide a visual guide to the growth rate for each occupation (see Outlook Key below). This column also notes the projected number of job openings each year.

## OUTLOOK KEY



**MUCH FASTER GROWTH THAN THE STATE AVERAGE**



**FASTER GROWTH THAN THE STATE AVERAGE**



**SAME GROWTH RATE AS THE STATE AVERAGE**



**SLOWER GROWTH THAN THE STATE AVERAGE**



**MUCH SLOWER GROWTH THAN THE STATE AVERAGE**



**DECLINING OCCUPATION**

Occupation cluster descriptions, national employment outlook, and pathways text created by intoCareers, a unit of the University of Oregon. Copyright © 2005, University of Oregon. All rights reserved.

# **AGRICULTURE, FOOD, AND NATURAL RESOURCES OCCUPATIONS**

***Do you collect rocks?***

***Do you have a green thumb?***

***Do you enjoy working with animals?***

***Are you interested in protecting the environment?***

***Do you enjoy working outdoors?***

***Are science classes your favorite?***

If you chose to work in occupations in the Agriculture, Food, and Natural Resources cluster, you could raise plants and animals as sources for food and shelter. On the other hand, you could focus on selling and making products from plants and animals. These products include food, lumber, and fabrics. You might also provide advice and services that farmers and ranchers need to improve products. Another option in this cluster is to work to conserve natural resources and protect the environment.

## ***National Employment Outlook***

The prospects in farm production will be limited. There will be a 14 percent decline in the number of self-employed farm and ranch operators in the next ten years.

You will find more jobs in agricultural services. Job openings will arise from the need to replace workers who leave every year. Turnover is very high among animal caretakers and farm and ranch workers. The turnover is the result of the seasonal and part-time nature of the work. Other factors are the low pay and high physical demands.

Employment will increase in landscaping and horticultural services. This will be a result of new construction. In addition, individuals and businesses recognize the value of preserving and restoring existing landscape and grounds. A growing number of homeowners use lawn maintenance and landscaping services to enhance the beauty of their property and to conserve leisure time.

Veterinary services will continue to experience growth because of increases in the number of pet owners. Pet owners are expected to take advantage of grooming services and boarding services.

Employment growth in farm-related agricultural services--crop services, soil preparation services, farm labor and management services, and livestock services--are linked to the health of agricultural production. When farmers and ranchers face difficult times, the demand for agricultural services also drops.

## ***Pathways***

### ***Agribusiness***

In the Agribusiness pathway, you would focus on products or services. You would actually grow food, fiber, or wood products. Or, you would assist farmers and ranchers by providing important services. This assistance might include granting the loans they need to operate. Other forms of assistance might include selling them the tools, equipment, or supplies they need to operate their farms or ranches. You might also assist them with doing their work or by selling their products to get the best prices.

# AGRICULTURE, FOOD, & NATURAL RESOURCES OCCUPATIONS

## Animals

In the Animals pathway, you would strive to find better ways to produce and process meat, eggs, and dairy products. You might study the genetics, nutrition, or development of animals. On the other hand, you might purchase livestock from farmers and ranchers or assist them with marketing or selling their animals. To assure that the products are safe to eat, you could inspect and grade meat. To assist farmers and ranchers, you could advise them on how to feed or house their animals to increase production.

Another option is to care for the animals. You might train, feed and water, groom, or exercise the animals. You may also clean, disinfect, and repair their cages, stalls, or barns.

## Environmental Service

In the Environmental Service pathway, you would act to protect the environment. You might focus on pollution control, recycling, waste disposal, or public health issues. Your work could involve doing studies to find threats to the ecosystem. Then you would figure out how to deal with the threats and to prevent future problems. You might design and operate wastewater systems. In other occupations in this pathway, you could collect, recycle, and remove hazardous materials.

## Food Products and Processing

If you were to study and work in the Food Products and Processing pathway, you would have several options. You might discover new food sources. You

could also analyze food content and create new food products. Or, you could inspect processing areas to make sure food is safe to eat.

## Natural Resources

In the Natural Resources pathway, you could perform a variety of tasks. Forests and rangelands supply wood products, livestock forage, minerals, and water. They also serve as sites for recreational activities and provide homes for wildlife. You would manage, develop, and help protect the forests and rangelands and other resources.

## Plants

In the occupations in the Plants pathway, you would study vegetation. Your goal would be to help crop producers feed a growing population. At the same time, you would help them conserve natural resources and protect the environment. You might also develop ways to improve the food value of crops and the quality of seeds. Through research, you could develop plants that require fewer fertilizers, pesticides, and herbicides or that are resistant to drought.

## Power, Structural, and Technical Systems

In the Power, Structural, and Technical Systems pathway, you use engineering, mechanics, electronics, and power to improve agriculture. You might design buildings and equipment used on farms and ranches. You might also develop ways to conserve soil and water. Or your goal might be to improve how farm products are processed. Another option for you is to maintain and repair the machines and structures.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>First professional degree</b>				
Veterinarians	IRS	Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.	<p>HIGH-END 77,990 MEDIAN 64,630 LOW-END 49,020</p>	 Projected Annual Average Openings: <b>24</b>
<b>Master's degree</b>				
Environmental scientists and specialists, including health	IR	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources.	<p>HIGH-END 63,340 MEDIAN 53,670 LOW-END 46,600</p>	 Projected Annual Average Openings: <b>46</b>



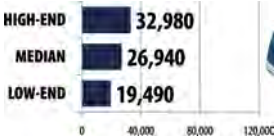
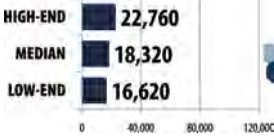
# AGRICULTURE, FOOD, & NATURAL RESOURCES OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
General and operations managers	ECS	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.	<p>HIGH-END 97,640</p> <p>MEDIAN 70,280</p> <p>LOW-END 49,500</p>	<p>Projected Annual Average Openings: <b>273</b></p>
Natural sciences managers	IER	Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.	<p>HIGH-END 103,130</p> <p>MEDIAN 89,450</p> <p>LOW-END 75,680</p>	<p>Projected Annual Average Openings: <b>11</b></p>
<b>Bachelor's degree</b>				
Conservation scientists	IR	Manage, improve, and protect natural resources to maximize their use without damaging the environment. Conduct soil surveys and develop plans to eliminate soil erosion or to protect rangelands. May instruct farmers, agricultural production managers, or ranchers in best ways to use crop rotation, contour plowing, or terracing to conserve soil and water; in the number and kind of livestock and forage plants best suited to particular ranges; and in range and farm improvements, such as fencing and reservoirs for stock watering.	<p>HIGH-END 71,100</p> <p>MEDIAN 61,220</p> <p>LOW-END 47,450</p>	<p>Projected Annual Average Openings: <b>21</b></p>
Foresters	RIC	Manage public and private forested lands for economic, recreational, and conservation purposes. May inventory the type, amount, and location of standing timber, appraise the timber's worth, negotiate the purchase, and draw up contracts for procurement. May determine how to conserve wildlife habitats, creek beds, water quality, and soil stability, and how best to comply with environmental regulations. May devise plans for planting and growing new trees, monitor trees for healthy growth, and determine optimal harvesting schedules.	<p>HIGH-END 61,680</p> <p>MEDIAN 51,020</p> <p>LOW-END 42,420</p>	<p>Projected Annual Average Openings: <b>8</b></p>
Loan officers	ESC	Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, and loan underwriters.	<p>HIGH-END 69,460</p> <p>MEDIAN 48,520</p> <p>LOW-END 36,410</p>	<p>Projected Annual Average Openings: <b>37</b></p>
Securities, commodities, and financial services sales agents	ESC	Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise customers about stocks, bonds, mutual funds, commodities, and market conditions.	<p>HIGH-END 91,830</p> <p>MEDIAN 49,240</p> <p>LOW-END 31,520</p>	<p>Projected Annual Average Openings: <b>37</b></p>
Social and community service managers	SEA	Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.	<p>HIGH-END 56,940</p> <p>MEDIAN 40,960</p> <p>LOW-END 31,250</p>	<p>Projected Annual Average Openings: <b>25</b></p>
<b>Associate degree</b>				
Forest and conservation technicians	RIC	Provide technical assistance regarding the conservation of soil, water, forests, or related natural resources. May compile data pertaining to size, content, condition, and other characteristics of forest tracts, under the direction of foresters; or train and lead forest workers in forest propagation, fire prevention and suppression. May assist conservation scientists in managing, improving, and protecting rangelands and wildlife habitats.	<p>HIGH-END 38,770</p> <p>MEDIAN 31,310</p> <p>LOW-END 24,940</p>	<p>Projected Annual Average Openings: <b>64</b></p>

# AGRICULTURE, FOOD, & NATURAL RESOURCES OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Postsecondary vocational training</b>				
Mobile heavy equipment mechanics, except engines	RC	Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining.	<p>HIGH-END 54,220</p> <p>MEDIAN 46,270</p> <p>LOW-END 39,190</p>	<p>Projected Annual Average Openings: <b>44</b></p>
<b>Work experience in a related occupation</b>				
First-line supervisors/managers of production and operating workers	RC	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators. Excludes team or work leaders.	<p>HIGH-END 66,080</p> <p>MEDIAN 48,220</p> <p>LOW-END 37,240</p>	<p>Projected Annual Average Openings: <b>31</b></p>
First-line supervisors/managers of retail sales workers	SRE	Directly supervise and coordinate activities of retail sales workers in an establishment or department. Duties may include management functions, such as purchasing, budgeting, accounting, and personnel work, in addition to supervisory duties.	<p>HIGH-END 43,110</p> <p>MEDIAN 32,370</p> <p>LOW-END 25,650</p>	<p>Projected Annual Average Openings: <b>201</b></p>
<b>Long-term on-the-job training</b>				
Butchers and meat cutters	ERC	Cut, trim, or prepare consumer-sized portions of meat for use or sale in retail establishments.	<p>HIGH-END 33,480</p> <p>MEDIAN 27,820</p> <p>LOW-END 22,110</p>	<p>Projected Annual Average Openings: <b>27</b></p>
Machinists	RC	Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments. May also fabricate and modify parts to make or repair machine tools or maintain industrial machines, applying knowledge of mechanics, mathematics, metal properties, layout, and machining procedures.	<p>HIGH-END 44,320</p> <p>MEDIAN 40,410</p> <p>LOW-END 32,800</p>	<p>Projected Annual Average Openings: <b>29</b></p>
Water and liquid waste treatment plant and system operators	RA	Operate or control an entire process or system of machines, often through the use of control boards, to transfer or treat water or wastewater.	<p>HIGH-END 40,550</p> <p>MEDIAN 32,820</p> <p>LOW-END 24,190</p>	<p>Projected Annual Average Openings: <b>11</b></p>
<b>Moderate-term on-the-job training</b>				
Logging equipment operators	RIC	Drive logging tractor or wheeled vehicle equipped with one or more accessories, such as bulldozer blade, frontal shear, grapple, logging arch, cable winches, hoisting rack, or crane boom, to fell tree; to skid, load, unload, or stack logs; or to pull stumps or clear brush. Logging truck drivers are included in "Heavy and Tractor Trailer Truck Drivers" (53-3032).	<p>HIGH-END 39,340</p> <p>MEDIAN 35,240</p> <p>LOW-END 31,090</p>	<p>Projected Annual Average Openings: <b>17</b></p>
Parts salespersons	CER	Sell spare and replacement parts and equipment in repair shop or parts store.	<p>HIGH-END 35,500</p> <p>MEDIAN 27,720</p> <p>LOW-END 20,300</p>	<p>Projected Annual Average Openings: <b>15</b></p>

# AGRICULTURE, FOOD, & NATURAL RESOURCES OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training</b>				
<b>Farmworkers, farm and ranch animals</b>	<b>R</b>	Attend to live farm, ranch, or aquacultural animals that may include cattle, sheep, swine, goats, horses and other equines, poultry, finfish, shellfish, and bees. Attend to animals produced for animal products, such as meat, fur, skins, feathers, eggs, milk, and honey. Duties may include feeding, watering, herding, grazing, castrating, branding, de-beaking, weighing, catching, and loading animals. May maintain records on animals; examine animals to detect diseases and injuries; assist in birth deliveries; and administer medications, vaccinations, or insecticides as appropriate. May clean and maintain animal housing areas. Includes workers who shear wool from sheep, and collect eggs in hatcheries.	 <p>HIGH-END 32,980 MEDIAN 26,940 LOW-END 19,490</p>	Projected Annual Average Openings: <b>51</b>
<b>Nonfarm animal caretakers</b>	<b>EC</b>	Feed, water, groom, bathe, exercise, or otherwise care for pets and other nonfarm animals, such as dogs, cats, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks.	 <p>HIGH-END 22,760 MEDIAN 18,320 LOW-END 16,620</p>	Projected Annual Average Openings: <b>24</b>

## ARCHITECTURE AND CONSTRUCTION OCCUPATIONS

**Do you often admire the buildings around you?**

**Do you like to work with tools, objects, & numbers?**

**Do you like to create models or make designs?**

**Can you visualize objects in your mind?**

**Do you like to use both mental and manual skills to solve problems?**

If you work in occupations in the Architecture and Construction cluster, you would be responsible for buildings and other structures such as highways and bridges. You might make designs and plans for new structures. Or, you would use the plans to build new structures and manage construction workers. Another option would be to take care of, repair, and restore existing structures.

### National Employment Outlook

If you are interested in working in construction, you will probably find a job. The job openings will vary with the different occupations. Many workers leave their jobs because of the hard physical work and uncomfortable working conditions. There will be more jobs in occupations that require skills that are technical and require more training. This includes bricklayers and stonemasons, electricians, sheet metal workers, and heating and cooling system mechanics.

When interest rates are low, people get loans to build new houses. In addition, industrial companies are replacing old, outdated facilities. Hospitals and health care facilities are adding on to meet the needs of the aging population. These conditions result in more job opportunities.



# ARCHITECTURE AND CONSTRUCTION OCCUPATIONS

## Pathways

### Design/Pre-Construction







In the Design and Pre-Construction pathway, you would create designs for the construction of cities, homes, and highways. You turn ideas into plans. Those plans would be used to guide construction workers as they build the actual structures.

### Construction










In the Construction pathway, you would build cities, homes, and highways. You would put up or remodel buildings used for living and work or structures such as highways, streets, bridges, tunnels, and airports.

### Maintenance/Operations

In the Maintenance and Operations pathway, you would take care of, repair, and restore cities, houses, and highways. You might repair and maintain factory equipment, highways and streets, schools and offices, or homes. In your work, you would detect problems and make recommendations for improvements. In some jobs, you would restore old structures to be like new.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
Administrative services managers	ECS	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services.	HIGH-END 76,120 MEDIAN 60,750 LOW-END 45,850	 Projected Annual Average Openings: <b>21</b>
Computer and information systems managers	ECI	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.	HIGH-END 112,890 MEDIAN 88,480 LOW-END 73,670	 Projected Annual Average Openings: <b>9</b>
Sales managers	EC	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	HIGH-END 100,880 MEDIAN 71,330 LOW-END 54,990	 Projected Annual Average Openings: <b>25</b>
<b>Bachelor's degree</b>				
Architects, except landscape and naval	ARI	Plan and design structures, such as private residences, office buildings, theaters, factories, and other structural property.	HIGH-END 70,100 MEDIAN 54,930 LOW-END 42,420	 Projected Annual Average Openings: <b>27</b>
Civil Engineers	RIC	Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems.	HIGH-END 74,410 MEDIAN 62,000 LOW-END 53,820	 Projected Annual Average Openings: <b>47</b>
Construction managers	ERC	Plan, direct, or coordinate, usually through subordinate supervisory personnel, activities concerned with the construction and maintenance of structures, facilities, and systems. Participate in the conceptual development of a construction project and oversee its organization, scheduling, budgeting, and implementation. Includes managers in specialized construction fields, such as carpentry or plumbing.	HIGH-END 85,100 MEDIAN 66,300 LOW-END 49,300	 Projected Annual Average Openings: <b>114</b>

# ARCHITECTURE AND CONSTRUCTION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's degree (cont.)</b>				
Electrical engineers	RI	Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use.	HIGH-END 82,340 MEDIAN 66,670 LOW-END 45,610	 Projected Annual Average Openings: <b>17</b>
Interior designers	AER	Plan, design, and furnish interiors of residential, commercial, or industrial buildings. Formulate design which is practical, aesthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style. May specialize in a particular field, style, or phase of interior design.	HIGH-END 45,860 MEDIAN 37,680 LOW-END 31,510	 Projected Annual Average Openings: <b>12</b>
Mechanical engineers	RI	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.	HIGH-END 85,200 MEDIAN 64,310 LOW-END 48,420	 Projected Annual Average Openings: <b>13</b>
Surveyors	IER	Make exact measurements and determine property boundaries. Provide data relevant to the shape, contour, gravitation, location, elevation, or dimension of land or land features on or near the earth's surface for engineering, map-making, mining, land evaluation, construction, and other purposes.	HIGH-END 66,210 MEDIAN 54,710 LOW-END 45,080	 Projected Annual Average Openings: <b>33</b>
<b>Associate's degree</b>				
Civil engineering technicians	RIC	Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.	HIGH-END 48,950 MEDIAN 43,190 LOW-END 34,810	 Projected Annual Average Openings: <b>16</b>
<b>Work experience in a related occupation</b>				
Cost estimators	CE	Prepare cost estimates for product manufacturing, construction projects, or services to aid management in bidding on or determining price of product or service. May specialize according to particular service performed or type of product manufactured.	HIGH-END 60,630 MEDIAN 48,970 LOW-END 34,350	 Projected Annual Average Openings: <b>40</b>
<b>Long-term on-the-job training</b>				
Brickmasons and blockmasons	REC	Lay and bind building materials, such as brick, structural tile, concrete block, cinder block, glass block, and terra-cotta block, with mortar and other substances to construct or repair walls, partitions, arches, sewers, and other structures.	HIGH-END 53,420 MEDIAN 43,160 LOW-END 32,230	 Projected Annual Average Openings: <b>22</b>
Carpenters	R	Construct, erect, install, or repair structures and fixtures made of wood, such as concrete forms; building frameworks, including partitions, joists, studding, and rafters; and wood stairways, window and door frames, and hardwood floors. May also install cabinets, siding, drywall and batt or roll insulation. Includes brattice builders who build doors or brattices (ventilation walls or partitions) in underground passageways	HIGH-END 41,850 MEDIAN 34,500 LOW-END 28,510	 Projected Annual Average Openings: <b>450</b>
Electricians	R	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.	HIGH-END 58,790 MEDIAN 52,130 LOW-END 41,460	 Projected Annual Average Openings: <b>138</b>

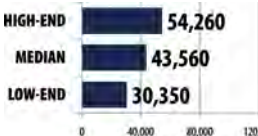



# ARCHITECTURE & CONSTRUCTION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Long-term on-the-job training (cont.)</b>				
Heating, air conditioning, and refrigeration mechanics and installers	RCE	Install or repair heating, central air conditioning, or refrigeration systems, including oil burners, hot-air furnaces, and heating stoves.	<p>HIGH-END 46,750</p> <p>MEDIAN 38,250</p> <p>LOW-END 31,540</p>	<p>Projected Annual Average Openings: <b>22</b></p>
Plumbers, pipefitters, and steamfitters	RIC	Assemble, install, alter, and repair pipelines or pipe systems that carry water, steam, air, or other liquids or gases. May install heating and cooling equipment and mechanical control systems. Includes sprinklerfitters.	<p>HIGH-END 60,270</p> <p>MEDIAN 53,200</p> <p>LOW-END 42,600</p>	<p>Projected Annual Average Openings: <b>116</b></p>
<b>Moderate-term on-the-job training</b>				
Cement masons and concrete finishers	R	Smooth and finish surfaces of poured concrete, such as floors, walks, sidewalks, roads, or curbs using a variety of hand and power tools. Align forms for sidewalks, curbs, or gutters; patch voids; and use saws to cut expansion joints.	<p>HIGH-END 43,500</p> <p>MEDIAN 36,530</p> <p>LOW-END 31,650</p>	<p>Projected Annual Average Openings: <b>85</b></p>
Highway maintenance workers	RC	Maintain highways, municipal and rural roads, airport runways, and rights-of-way. Duties include patching broken or eroded pavement, repairing guard rails, highway markers, and snow fences. May also mow or clear brush from along road or plow snow from roadway.	<p>HIGH-END 40,610</p> <p>MEDIAN 37,310</p> <p>LOW-END 36,340</p>	<p>Projected Annual Average Openings: <b>11</b></p>
Painters, construction and maintenance	RC	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency.	<p>HIGH-END 41,160</p> <p>MEDIAN 34,790</p> <p>LOW-END 28,760</p>	<p>Projected Annual Average Openings: <b>95</b></p>
Roofers	R	Cover roofs of structures with shingles, slate, asphalt, aluminum, wood, or related materials. May spray roofs, sidings, and walls with material to bind, seal, insulate, or soundproof sections of structures.	<p>HIGH-END 33,110</p> <p>MEDIAN 28,330</p> <p>LOW-END 23,500</p>	<p>Projected Annual Average Openings: <b>37</b></p>
Sales representatives, wholesale and manufacturing, except technical and scientific products	ECS	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	<p>HIGH-END 56,790</p> <p>MEDIAN 40,140</p> <p>LOW-END 27,970</p>	<p>Projected Annual Average Openings: <b>162</b></p>
Sales representatives, wholesale and manufacturing, technical and scientific products	ESC	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.	<p>HIGH-END 71,990</p> <p>MEDIAN 48,680</p> <p>LOW-END 31,230</p>	<p>Projected Annual Average Openings: <b>37</b></p>
<b>Short-term on-the-job training</b>				
Landscaping and groundskeeping workers	R	Landscape or maintain grounds of property using hand or power tools or equipment. Workers typically perform a variety of tasks, which may include any combination of the following: sod laying, mowing, trimming, planting, watering, fertilizing, digging, raking, sprinkler installation, and installation of mortarless segmental concrete masonry wall units.	<p>HIGH-END 29,020</p> <p>MEDIAN 23,860</p> <p>LOW-END 19,940</p>	<p>Projected Annual Average Openings: <b>182</b></p>



# ARCHITECTURE & CONSTRUCTION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training (cont.)</b>				
Production, planning, and expediting clerks	RC	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.	 <p>HIGH-END 54,260 MEDIAN 43,560 LOW-END 30,350</p>	 <p>Projected Annual Average Openings: <b>18</b></p>

## ARTS, A/V TECHNOLOGY, AND COMMUNICATIONS OCCUPATIONS

**Do you collect rocks?**

**Do you have a green thumb?**

**Do you enjoy working with animals?**

**Are you interested in protecting the environment?**

**Do you enjoy working outdoors?**

**Are science classes your favorite?**

If you are interested in working in this cluster, you have two avenues. One is to be the performer or artist. The other is to work behind the scenes to make the performance or publication happen. As a reporter, actor, or fine artist, you would use your creative talents. To assure that a concert or magazine is successful, you would use computers and sound equipment. The occupations in this cluster allow you to use your creativity, talent, and technical skills.

### National Employment Outlook

The job opportunities in broadcasting, journalism, and printing will be limited in the future. Most of the jobs will result when workers retire or go to other jobs. Increased use of technology means fewer workers will be needed. Many people are attracted to these occupations because of the glamour of the jobs. As a result, there are many applicants for broadcasting jobs. There have been changes in current laws regulating ownership of broadcast stations. Many stations are combined under one network and fewer workers are needed. You may find more job opportunities in films. More movies and programs are needed for the cable and satellite television channels. Most of the jobs will be for those working behind the scenes.

### Pathways

#### Audio-Video Communications Technology

In the Audio-Video Communications Technology pathway, you work with the equipment used in producing sounds and images. You would make sure the equipment is available and working. You might work for hotels, convention centers, schools, movie theatres, and stadiums. Another option is to work for companies that rent or sell sound and video equipment.

# ARTS, A/V TECHNOLOGY, AND COMMUNICATIONS OCCUPATIONS

## Broadcast, Film, and Journalism

In the Broadcast, Film, and Journalism pathway, you would make sure that radio and television programs and movies reach the public. You could prepare the content and make broadcasts. During the show, you could record or transmit the program. In addition, you could be involved with the publication of newspapers and magazines. As a writer or photographer, you would produce the stories or articles. As an editor, you would plan the content and assign the work.

## Performing Arts

As a worker in the Performing Arts pathway, you would be responsible for putting on plays and concerts. You could coordinate all the activities associated with putting on a concert or play. Or you might represent the actors or musicians to help them find jobs. Another option is to put on the live entertainment.

## Printing Technology

The Printing Technology process has three stages. During the first stage, you would prepare material for printing presses. You would transform text and pic-





tures into digital images or finished pages. Then you would make printing plates of the pages. During the next stage, you would prepare, operate, and maintain the printing presses in a pressroom. You would use computers to perform the tasks electronically. During the third stage, you would join the printed sheets into a finished product.

## Telecommunications

You would focus on the contact between computer and communications equipment in the Telecommunications pathway. Telecommunications equipment is computerized and can communicate a variety of information, including data, graphics, and video. You would set up, operate, and maintain this complicated equipment






## Visual Arts

Visual artists create art to communicate ideas, thoughts, or feelings. You would use a variety of methods such as painting, sculpting, and illustrating. You would create art to satisfy your need for self-expression. Or you might use your artistic skills at corporations; retail stores; and advertising, design, and publishing firms.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
General and operations managers	ECS	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.	HIGH-END 97,640 MEDIAN 70,280 LOW-END 49,500	 Projected Annual Average Openings: <b>273</b>
Music directors and composers	AES	Conduct, direct, plan, and lead instrumental or vocal performances by musical groups, such as orchestras, bands, choirs, and glee clubs. Includes arrangers, composers, choral directors, and orchestrators.	HIGH-END 41,970 MEDIAN 30,800 LOW-END 17,930	 Projected Annual Average Openings: <b>8</b>
<b>Bachelor's degree</b>				
Graphic designers	AE	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	HIGH-END 41,940 MEDIAN 31,600 LOW-END 25,740	 Projected Annual Average Openings: <b>37</b>
Interior designers	AER	Plan, design, and furnish interiors of residential, commercial, or industrial buildings. Formulate design which is practical, aesthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style. May specialize in a particular field, style, or phase of interior design.	HIGH-END 45,860 MEDIAN 37,680 LOW-END 31,510	 Projected Annual Average Openings: <b>12</b>



# ARTS, A/V TECHNOLOGY, AND COMMUNICATIONS OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's degree (Cont.)</b>				
Writers and authors	EAS	Originate and prepare written material, such as scripts, stories, advertisements, and other material.	<b>HIGH-END</b> 50,610 <b>MEDIAN</b> 43,350 <b>LOW-END</b> 27,340	 Projected Annual Average Openings: <b>29</b>
<b>Long-term on-the-job training</b>				
Musicians and singers	AE	Play one or more musical instruments or sing. May perform on stage, for on-air broadcasting, or for sound or video recording.	<b>WAGES NOT AVAILABLE</b>	 Projected Annual Average Openings: <b>13</b>
Photographers	AI	Photograph people, landscapes, merchandise, or other subjects, using digital or film cameras and equipment. May develop negatives or use computer software to produce finished images and prints. Includes scientific photographers, aerial photographers, and photojournalists.	<b>HIGH-END</b> 36,870 <b>MEDIAN</b> 25,280 <b>LOW-END</b> 16,640	 Projected Annual Average Openings: <b>14</b>
Telecommunications line installers and repairers	R	Install and repair telecommunications cable, including fiber optics.	<b>HIGH-END</b> 54,970 <b>MEDIAN</b> 44,270 <b>LOW-END</b> 33,720	 Projected Annual Average Openings: <b>18</b>
<b>Moderate-term on-the-job training</b>				
Painters, construction and maintenance	RC	Paint walls, equipment, buildings, bridges, and other structural surfaces, using brushes, rollers, and spray guns. May remove old paint to prepare surface prior to painting. May mix colors or oils to obtain desired color or consistency.	<b>HIGH-END</b> 41,160 <b>MEDIAN</b> 34,790 <b>LOW-END</b> 28,760	 Projected Annual Average Openings: <b>95</b>





# ***BUSINESS, MANAGEMENT, AND ADMINISTRATION OCCUPATIONS***

***Do you enjoy working with other people?***

***Are you good at working with numbers?***

***Do you like to plan and organize activities?***

***Have you started your own business?***

***Do you keep your checkbook balanced?***

***Are you an officer of an organization?***

If you are interested in Business, Management, and Administration, there are many career options. You may provide the needed support to keep a business in operation. Or you might keep track of the expenses and income. You could manage the financial activities of a business. Another option is to be sure that a business has qualified employees who are trained to do their jobs. Or after years of education or experience, you might direct the operations of a business.

## ***National Employment Outlook***

There will be job opportunities in business, management, and administration in the future. Most of the opportunities will be in management. New management jobs will be added. Other openings will be the result of workers retiring or leaving their jobs. To qualify for these higher paying jobs, you will probably have to attend college and have several years of work experience. The increased use of technology in the storage and use of information will mean fewer job openings in some pathways in this cluster. Businesses will need fewer employees to do support work. Business owners will be able to do their own business analysis using the latest software programs.

## ***Pathways***

### **Business Financial Management and Accounting**

Employees in the Business Financial Management and Accounting pathway use general accounting systems. You would use the systems to prepare bills, taxes, and reports. Also, you would help make important business decisions.

### **Human Resources**

In the Human Resources pathway, you would be responsible for finding and keeping employees. To do this, you would interview and hire the most qualified applicant. In addition, you would have to be familiar with labor laws and wages and benefits. Your duties might include providing training and doing things to keep employees happy.

### **Business Analysis**





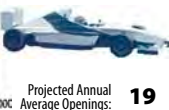





If a business is experiencing problems, the owner might contact a business analyst for help. To find solutions to the problems, you would first carefully study the details of the business operations. Once a solution is developed, you would determine which is best for the business. In the final step, you would make a proposal to the business owner.

### **Management**










Employees working in management do a variety of activities to keep a business in operation. The size of the company affects the work you might do as the manager. In a large company, you might supervise other managers. In a small company, you might directly supervise all the employees. Or you might direct the work in one area of a business such as marketing or finance.

As a manager, there could be many tasks to your job. You might build relationships with people outside the company or department and with employees. You might negotiate with or hire employees. Another part of the job might be to assure there are equipment, supplies, and money to operate the business.

# BUSINESS, MANAGEMENT, AND ADMINISTRATION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
<b>Administrative services managers</b>	<b>ECS</b>	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services.	<b>HIGH-END</b> 76,120 <b>MEDIAN</b> 60,750 <b>LOW-END</b> 45,850	 Projected Annual Average Openings: <b>21</b>
<b>Chief executives</b>	<b>ECS</b>	Determine and formulate policies and provide overall direction of companies or private and public sector organizations within guidelines set up by a board of directors or similar governing body. Plan, direct, or coordinate operational activities at the highest level of management with the help of subordinate executives and staff managers.	<b>HIGH-END</b> 127,500 <b>MEDIAN</b> 78,210 <b>LOW-END</b> 55,140	 Projected Annual Average Openings: <b>48</b>
<b>Financial managers</b>	<b>EC</b>	Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.	<b>HIGH-END</b> 98,900 <b>MEDIAN</b> 76,430 <b>LOW-END</b> 57,170	 Projected Annual Average Openings: <b>25</b>
<b>General and operations managers</b>	<b>ECS</b>	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.	<b>HIGH-END</b> 97,640 <b>MEDIAN</b> 70,280 <b>LOW-END</b> 49,500	 Projected Annual Average Openings: <b>273</b>
<b>Management analysts</b>	<b>CEI</b>	Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively.	<b>HIGH-END</b> 77,990 <b>MEDIAN</b> 61,240 <b>LOW-END</b> 50,300	 Projected Annual Average Openings: <b>19</b>
<b>Medical and health services managers</b>	<b>ES</b>	Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.	<b>HIGH-END</b> 87,730 <b>MEDIAN</b> 69,640 <b>LOW-END</b> 54,740	 Projected Annual Average Openings: <b>30</b>
<b>Natural sciences managers</b>	<b>IER</b>	Plan, direct, or coordinate activities in such fields as life sciences, physical sciences, mathematics, statistics, and research and development in these fields.	<b>HIGH-END</b> 103,130 <b>MEDIAN</b> 89,450 <b>LOW-END</b> 75,680	 Projected Annual Average Openings: <b>11</b>
<b>Sales managers</b>	<b>EC</b>	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	<b>HIGH-END</b> 100,880 <b>MEDIAN</b> 71,330 <b>LOW-END</b> 54,990	 Projected Annual Average Openings: <b>25</b>
<b>Accountants and auditors</b>	<b>CEI</b>	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data.	<b>HIGH-END</b> 64,490 <b>MEDIAN</b> 47,760 <b>LOW-END</b> 37,560	 Projected Annual Average Openings: <b>154</b>
<b>Graphic designers</b>	<b>AE</b>	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	<b>HIGH-END</b> 41,940 <b>MEDIAN</b> 31,600 <b>LOW-END</b> 25,740	 Projected Annual Average Openings: <b>37</b>

# BUSINESS, MANAGEMENT, & ADMINISTRATION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience (cont.)</b>				
Human Resources Specialists	ESC	Perform activities in the human resource area. Includes employment specialists who screen, recruit, interview, and place workers.	HIGH-END 57,660 MEDIAN 41,680 LOW-END 35,000	 Projected Annual Average Openings: <b>18</b>
Insurance sales agents	ES	Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.	HIGH-END 70,770 MEDIAN 39,690 LOW-END 28,720	 Projected Annual Average Openings: <b>85</b>
Property, real estate, and community association managers	EC	Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Includes managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (including rights-of-way).	HIGH-END 37,250 MEDIAN 27,580 LOW-END 20,250	 Projected Annual Average Openings: <b>52</b>
Public relations specialists	AIE	Engage in promoting or creating an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media.	HIGH-END 50,660 MEDIAN 40,910 LOW-END 33,770	 Projected Annual Average Openings: <b>24</b>
Writers and authors	EAS	Originate and prepare written material, such as scripts, stories, advertisements, and other material.	HIGH-END 50,610 MEDIAN 43,350 LOW-END 27,340	 Projected Annual Average Openings: <b>29</b>
<b>Associate degree</b>				
Paralegals and legal assistants	EC	Assist lawyers by investigating facts, preparing legal documents, or researching legal precedent. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.	HIGH-END 43,300 MEDIAN 36,210 LOW-END 30,630	 Projected Annual Average Openings: <b>26</b>
<b>Postsecondary vocational training</b>				
Legal secretaries	CRE	Perform secretarial duties using legal terminology, procedures, and documents. Prepare legal papers and correspondence, such as summonses, complaints, motions, and subpoenas. May also assist with legal research.	HIGH-END 34,310 MEDIAN 29,080 LOW-END 23,700	 Projected Annual Average Openings: <b>32</b>
Medical transcriptionists	SR	Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.	HIGH-END 38,630 MEDIAN 31,580 LOW-END 26,370	 Projected Annual Average Openings: <b>11</b>
Real estate sales agents	ERS	Rent, buy, or sell property for clients. Perform duties, such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.	HIGH-END 66,970 MEDIAN 37,960 LOW-END 30,940	 Projected Annual Average Openings: <b>45</b>



# BUSINESS, MANAGEMENT, & ADMINISTRATION OCCUPATIONS










Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Work experience in a related occupation</b>				
Wholesale and retail buyers, except farm products	ECS	Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. Includes assistant wholesale and retail buyers of nonfarm products.	<p>HIGH-END 49,050 MEDIAN 34,810 LOW-END 27,770</p>	 Projected Annual Average Openings: <b>30</b>
<b>Long-term on-the-job training</b>				
Claims adjusters, examiners, and investigators	EC	Review settled claims to determine that payments and settlements are made in accordance with company practices and procedures. Confer with legal counsel on claims requiring litigation. May also settle insurance claims.	<p>HIGH-END 68,550 MEDIAN 57,410 LOW-END 43,850</p>	 Projected Annual Average Openings: <b>43</b>
Compliance officers, except agriculture, construction, health and safety, and transportation	CR	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	<p>HIGH-END 64,870 MEDIAN 47,610 LOW-END 40,270</p>	 Projected Annual Average Openings: <b>19</b>
<b>Moderate-term on-the-job training</b>				
Advertising sales agents	ERC	Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or Internet establishments or public spaces.	<p>HIGH-END 46,670 MEDIAN 30,830 LOW-END 22,290</p>	 Projected Annual Average Openings: <b>28</b>
Billing and posting clerks and machine operators	CRS	Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.	<p>HIGH-END 36,800 MEDIAN 28,830 LOW-END 22,270</p>	 Projected Annual Average Openings: <b>48</b>
Bookkeeping, accounting, and auditing clerks	CE	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.	<p>HIGH-END 36,800 MEDIAN 28,830 LOW-END 22,270</p>	 Projected Annual Average Openings: <b>515</b>
Computer operators	CE	Monitor and control electronic computer and peripheral electronic data processing equipment to process business, scientific, engineering, and other data according to operating instructions. Monitor and respond to operating and error messages. May enter commands at a computer terminal and set controls on computer and peripheral devices.	<p>HIGH-END 40,470 MEDIAN 28,470 LOW-END 22,510</p>	 Projected Annual Average Openings: <b>4</b>
Customer service representatives	CE	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.	<p>HIGH-END 37,050 MEDIAN 28,990 LOW-END 23,170</p>	 Projected Annual Average Openings: <b>250</b>
Data entry keyers	CES	Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing.	<p>HIGH-END 29,160 MEDIAN 24,150 LOW-END 19,930</p>	 Projected Annual Average Openings: <b>21</b>

# BUSINESS, MANAGEMENT, & ADMINISTRATION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Moderate-term on-the-job training (cont.)</b>				
Demonstrators and product promoters	ERS	Demonstrate merchandise and answer questions for the purpose of creating public interest in buying the product. May sell demonstrated merchandise.	<p>HIGH-END 24,740</p> <p>MEDIAN 18,930</p> <p>LOW-END 17,330</p>	<p>Projected Annual Average Openings: <b>23</b></p>
Dispatchers, except police, fire, and ambulance	CSE	Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business. Duties may include using radio, telephone, or computer to transmit assignments and compiling statistics and reports on work progress.	<p>HIGH-END 42,580</p> <p>MEDIAN 32,230</p> <p>LOW-END 25,370</p>	<p>Projected Annual Average Openings: <b>25</b></p>
Executive secretaries and administrative assistants	CR	Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.	<p>HIGH-END 44,350</p> <p>MEDIAN 35,890</p> <p>LOW-END 29,620</p>	<p>Projected Annual Average Openings: <b>228</b></p>
Medical assistants		Perform administrative and certain clinical duties under the direction of a physician. Duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician.	<p>HIGH-END 31,280</p> <p>MEDIAN 27,290</p> <p>LOW-END 23,400</p>	<p>Projected Annual Average Openings: <b>32</b></p>
Payroll and timekeeping clerks	C	Compile and record employee time and payroll data. May compute employees' time worked, production, and commission. May compute and post wages and deductions, or prepare paychecks.	<p>HIGH-END 37,690</p> <p>MEDIAN 31,310</p> <p>LOW-END 24,830</p>	<p>Projected Annual Average Openings: <b>25</b></p>
Sales representatives, wholesale and manufacturing, except technical and scientific products	ECS	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	<p>HIGH-END 56,790</p> <p>MEDIAN 40,140</p> <p>LOW-END 27,970</p>	<p>Projected Annual Average Openings: <b>162</b></p>
Sales representatives, wholesale and manufacturing, technical and scientific products	ESC	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.	<p>HIGH-END 71,990</p> <p>MEDIAN 48,680</p> <p>LOW-END 31,230</p>	<p>Projected Annual Average Openings: <b>37</b></p>
<b>Short-term on-the-job training</b>				
Counter and rental clerks	ECS	Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment.	<p>HIGH-END 28,650</p> <p>MEDIAN 20,410</p> <p>LOW-END 17,240</p>	<p>Projected Annual Average Openings: <b>123</b></p>
Counter attendants, cafeteria, food concession, and coffee shop	ESR	Serve food to diners at counter or from a steam table. Counter attendants who also wait tables are included in "Waiters and Waitresses" (35-3031).	<p>HIGH-END 19,300</p> <p>MEDIAN 17,250</p> <p>LOW-END 15,910</p>	<p>Projected Annual Average Openings: <b>117</b></p>



# BUSINESS, MANAGEMENT, & ADMINISTRATION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training (cont.)</b>				
<b>Driver/sales workers</b>	<b>RSC</b>	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery. Includes newspaper delivery drivers.	<b>HIGH-END</b> 33,100 <b>MEDIAN</b> 21,390 <b>LOW-END</b> 17,550	 Projected Annual Average Openings: <b>28</b>
<b>Human resources assistants, except payroll and timekeeping</b>	<b>CE</b>	Compile and keep personnel records. Record data for each employee, such as address, weekly earnings, absences, amount of sales or production, supervisory reports, and date of and reason for termination. May prepare reports for employment records, file employment records, or search employee files and furnish information to authorized persons.	<b>HIGH-END</b> 38,140 <b>MEDIAN</b> 31,950 <b>LOW-END</b> 25,770	 Projected Annual Average Openings: <b>14</b>
<b>Laborers and Freight, Stock, and Material Movers, Hand</b>	<b>RC</b>	Manually move freight, stock, or other materials or perform other general labor. Includes all manual laborers not elsewhere classified.	<b>HIGH-END</b> 29,940 <b>MEDIAN</b> 24,640 <b>LOW-END</b> 19,420	 Projected Annual Average Openings: <b>201</b>
<b>Order clerks</b>	<b>CSE</b>	Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Generally receives orders via mail, phone, fax, or other electronic means. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints.	<b>HIGH-END</b> 31,550 <b>MEDIAN</b> 24,620 <b>LOW-END</b> 20,580	 Projected Annual Average Openings: <b>11</b>
<b>Receptionists and information clerks</b>	<b>CE</b>	Answer inquiries and provide information to the general public, customers, visitors, and other interested parties regarding activities conducted at establishment and location of departments, offices, and employees within the organization.	<b>HIGH-END</b> 26,740 <b>MEDIAN</b> 22,830 <b>LOW-END</b> 19,340	 Projected Annual Average Openings: <b>124</b>
<b>Retail salespersons</b>	<b>CER</b>	Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers.	<b>HIGH-END</b> 27,310 <b>MEDIAN</b> 20,920 <b>LOW-END</b> 17,530	 Projected Annual Average Openings: <b>1106</b>
<b>Shipping, receiving, and traffic clerks</b>	<b>RC</b>	Verify and maintain records on incoming and outgoing shipments. Prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying and recording incoming merchandise or material; and arranging for the transportation of products.	<b>HIGH-END</b> 32,170 <b>MEDIAN</b> 25,860 <b>LOW-END</b> 21,290	 Projected Annual Average Openings: <b>60</b>
<b>Stock clerks and order fillers</b>	<b>CE</b>	Receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May mark prices on merchandise and set up sales displays.	<b>HIGH-END</b> 25,380 <b>MEDIAN</b> 20,930 <b>LOW-END</b> 17,810	 Projected Annual Average Openings: <b>131</b>
<b>Telemarketers</b>	<b>ERS</b>	Solicit donations or orders for goods or services over the telephone.	<b>HIGH-END</b> 24,030 <b>MEDIAN</b> 22,440 <b>LOW-END</b> 20,850	 Projected Annual Average Openings: <b>37</b>



# EDUCATION AND TRAINING OCCUPATIONS

***Are you patient?***

***Have you coached sports activities?***

***Do you like to speak in front of groups?***

***Do you enjoy teaching games to children?***

***Are you outgoing?***

***Do you like being in school?***

In the Education and Training cluster, you would have the opportunity to guide and train young people. As a teacher, you could influence young lives. In addition, you could support the work of the classroom teacher as a counselor, librarian, or principal. If you are interested in working with adults, you could provide training to employees in a business. Each of these settings provides you with the chance to help people learn and improve their lives.

## ***National Employment Outlook***

Most of the openings in education will result from workers and educators retiring. In the future there may not be enough teachers graduating from college to fill the job openings. Positions in math, science, bilingual, and special education will continue to be difficult to fill.

However, many state governments and local school districts are facing budget problems. As a result, schools are cutting support services and some educational programs. If these financial problems continue, more schools will combine and more programs will be cut. As a result employment may grow more slowly.

## ***Pathways***

### **Teaching and Training**

As an educator in the Teaching and Training pathway, you would teach others about a subject you love. You could inspire young learners. This would require you to have the ability to communicate with and motivate learners. To do this, you would have to understand their diverse needs and individual differences. To help each learner achieve, you would use a variety of teaching methods and tools.

### **Professional Support Services**










The Professional Support Services pathway includes occupations that are important for the success of schools and learners. You would assist learners with

physical, personal, and family needs. These needs might be barriers to success in school. Or you might guide learners as they develop educational and career goals.

### **Administration and Administrative Support**

For a school to operate smoothly, someone must be in charge. In the Administration and Administrative Support pathway, you would manage all the activities in a school. You might also run preschools, day-care centers, colleges, and universities. On the other hand, you might support the work of teachers and administrators.

# EDUCATION AND TRAINING OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Doctoral degree</b>				
Clinical, counseling, and school psychologists	ISA	Diagnose and treat mental disorders; learning disabilities; and cognitive, behavioral, and emotional problems, using individual, child, family, and group therapies. May design and implement behavior modification programs.	HIGH-END 58,020 MEDIAN 46,250 LOW-END 36,730	 Projected Annual Average Openings: 16
<b>Master's degree</b>				
Educational, vocational, and school counselors	SAC	Counsel individuals and provide group educational and vocational guidance services.	HIGH-END 55,170 MEDIAN 42,670 LOW-END 32,940	 Projected Annual Average Openings: 35
Speech-language pathologists	SRI	Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.	HIGH-END 66,900 MEDIAN 55,050 LOW-END 37,900	 Projected Annual Average Openings: 8
<b>Bachelor's or higher degree, plus work experience</b>				
Education administrators, elementary and secondary school	CEI	Plan, direct, or coordinate the academic, administrative, or auxiliary activities of public or private elementary or secondary level schools.	HIGH-END 81,580 MEDIAN 69,240 LOW-END 56,380	 Projected Annual Average Openings: 28
Education administrators, postsecondary	EISC	Plan, direct, or coordinate research, instructional, student administration and services, and other educational activities at postsecondary institutions, including universities, colleges, and junior and community colleges.	HIGH-END 86,240 MEDIAN 62,740 LOW-END 45,490	 Projected Annual Average Openings: 20
<b>Bachelor's degree</b>				
Child, family, and school social workers	SEA	Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers.	HIGH-END 41,570 MEDIAN 34,790 LOW-END 28,330	 Projected Annual Average Openings: 29
Elementary school teachers, except special education	SAI	Teach students basic academic, social, and other formative skills in public or private schools at the elementary level.	HIGH-END 52,980 MEDIAN 41,070 LOW-END 30,250	 Projected Annual Average Openings: 221
Middle school teachers, except special and vocational education	SAI	Teach students in one or more subjects in public or private schools at the middle, intermediate, or junior high level, which falls between elementary and senior high school as defined by applicable laws and regulations.	HIGH-END 53,780 MEDIAN 42,870 LOW-END 31,770	 Projected Annual Average Openings: 62
Recreation workers	SR	Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.	HIGH-END 26,810 MEDIAN 20,900 LOW-END 17,830	 Projected Annual Average Openings: 46

# EDUCATION AND TRAINING OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's degree (cont.)</b>				
Secondary school teachers, except special and vocational education	SAI	Teach students in one or more subjects, such as English, mathematics, or social studies at the secondary level in public or private schools. May be designated according to subject matter specialty.	<p>HIGH-END 49,500</p> <p>MEDIAN 39,700</p> <p>LOW-END 29,630</p>	<p>Projected Annual Average Openings: <b>161</b></p>
<b>Postsecondary vocational training</b>				
Fitness trainers and aerobics instructors	SA	Instruct or coach groups or individuals in exercise activities. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills.	<p>HIGH-END 34,360</p> <p>MEDIAN 26,750</p> <p>LOW-END 18,270</p>	<p>Projected Annual Average Openings: <b>44</b></p>
Preschool teachers, except special education	SAC	Instruct preschool-aged children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility.	<p>HIGH-END 26,470</p> <p>MEDIAN 23,270</p> <p>LOW-END 20,650</p>	<p>Projected Annual Average Openings: <b>40</b></p>
<b>Long-term on-the-job training</b>				
Coaches and scouts	ERS	Instruct or coach groups or individuals in the fundamentals of sports. Demonstrate techniques and methods of participation. May evaluate athletes' strengths and weaknesses as possible recruits or to improve the athletes' technique to prepare them for competition. Those required to hold teaching degrees should be reported in the appropriate teaching category.	<p>HIGH-END 40,660</p> <p>MEDIAN 20,320</p> <p>LOW-END 16,980</p>	<p>Projected Annual Average Openings: <b>56</b></p>
<b>Short-term on-the-job training</b>				
Child care workers	ESA	Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.	<p>HIGH-END 19,250</p> <p>MEDIAN 17,700</p> <p>LOW-END 16,160</p>	<p>Projected Annual Average Openings: <b>262</b></p>
Teacher assistants	SCA	Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher has ultimate responsibility for the design and implementation of educational programs and services.	<p>HIGH-END 25,170</p> <p>MEDIAN 21,330</p> <p>LOW-END 18,010</p>	<p>Projected Annual Average Openings: <b>118</b></p>



# FINANCE OCCUPATIONS

***Are you the treasurer of a club or organization?***

***Do you enjoy working with numbers?***

***Do you balance your checkbook?***

***Are you interested in the stock market?***

***Do you like to operate calculators?***

***Are you good at following detailed work plans?***

In the occupations in the Finance cluster, you would keep track of money. You might provide financial services to a business or individual. Your work could include maintaining records or giving advice to business executives on how to operate their business. You could work in financial planning, banking, or insurance.

## ***National Employment Outlook***

Job opportunities in banking and insurance are expected to increase slowly. Most job openings will be the result of employees leaving their jobs or retiring. As the use of technology increases, fewer workers will be needed to do administrative and support tasks. More people will be completing their insurance and banking transactions on the computer.

In addition, smaller banks are merging into larger banks and need fewer employees. Insurance companies are using the Internet to sell their products and need fewer sales agents. Also, some insurance companies are reducing the number of employees because of budget problems.

Employment in financial planning and investment is expected to grow. More people are investing in the stock market. Also, people are more interested in investing in markets in foreign countries. As people get older, they are looking for assistance in planning for their retirement.

## ***Pathways***

### **Financial and Investment Planning**

In the Financial and Investment Planning pathway, you would help businesses and individuals make decisions about their investments.

### **Business Financial Management**

In the Business Financial Management pathway, you would use general accounting systems to prepare financial reports. You would use information to help businesses make financial decisions.










### **Banking and Related Services**









Employees working in the Banking and Related Services pathway work with individuals and businesses. You would provide loans, credit, and payment services.

### **Insurance Services**

Employees in the Insurance Services pathway provide protection to individuals and businesses. You would sell policies to guard against financial losses resulting from a variety of situations.

# FINANCE OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
Financial managers	EC	Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.	HIGH-END 98,900 MEDIAN 76,430 LOW-END 57,170	 Projected Annual Average Openings: 25
<b>Bachelor's degree</b>				
Accountants and auditors	CEI	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data.	HIGH-END 64,490 MEDIAN 47,760 LOW-END 37,560	 Projected Annual Average Openings: 154
Insurance sales agents	ES	Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.	HIGH-END 70,770 MEDIAN 39,690 LOW-END 28,720	 Projected Annual Average Openings: 85
Loan officers	ESC	Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and payment methods. Includes mortgage loan officers and agents, collection analysts, loan servicing officers, and loan underwriters.	HIGH-END 69,460 MEDIAN 48,520 LOW-END 36,410	 Projected Annual Average Openings: 37
Personal financial advisors	SEC	Advise clients on financial plans using knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives.	HIGH-END 80,140 MEDIAN 52,730 LOW-END 34,120	 Projected Annual Average Openings: 33
Securities, commodities, and financial services sales agents	ESC	Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise customers about stocks, bonds, mutual funds, commodities, and market conditions.	HIGH-END 91,830 MEDIAN 49,240 LOW-END 31,520	 Projected Annual Average Openings: 37
<b>Long-term on-the-job training</b>				
Claims adjusters, examiners, and investigators	EC	Review settled claims to determine that payments and settlements are made in accordance with company practices and procedures. Confer with legal counsel on claims requiring litigation. May also settle insurance claims.	HIGH-END 68,550 MEDIAN 57,410 LOW-END 43,850	 Projected Annual Average Openings: 43
Compliance officers, except agriculture, construction, health and safety, and transportation	CR	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	HIGH-END 64,870 MEDIAN 47,610 LOW-END 40,270	 Projected Annual Average Openings: 19
<b>Moderate-term on-the-job training</b>				
Computer operators	CE	Monitor and control electronic computer and peripheral electronic data processing equipment to process business, scientific, engineering, and other data according to operating instructions. Monitor and respond to operating and error messages. May enter commands at a computer terminal and set controls on computer and peripheral devices.	HIGH-END 40,470 MEDIAN 28,470 LOW-END 22,510	 Projected Annual Average Openings: 4

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Moderate-term on-the-job training (cont.)</b>				
Customer service representatives	CE	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints. Excludes individuals whose duties are primarily installation, sales, or repair.	HIGH-END 37,050 MEDIAN 28,990 LOW-END 23,170	 Projected Annual Average Openings: <b>250</b>
Data entry keyers	CES	Operate data entry device, such as keyboard or photo composing perforator. Duties may include verifying data and preparing materials for printing.	HIGH-END 29,160 MEDIAN 24,150 LOW-END 19,930	 Projected Annual Average Openings: <b>21</b>
Insurance claims and policy processing clerks	CR	Process new insurance policies, modifications to existing policies, and claims forms. Obtain information from policyholders to verify the accuracy and completeness of information on claims forms, applications and related documents, and company records. Update existing policies and company records to reflect changes requested by policyholders and insurance company representatives.	HIGH-END 35,930 MEDIAN 30,080 LOW-END 25,850	 Projected Annual Average Openings: <b>25</b>
Tax preparers	CE	Prepare tax returns for individuals or small businesses.	HIGH-END 37,510 MEDIAN 28,490 LOW-END 22,000	 Projected Annual Average Openings: <b>6</b>
Title examiners, abstractors, and searchers	CE	Search real estate records, examine titles, or summarize pertinent legal or insurance documents or details for a variety of purposes. May compile lists of mortgages, contracts, and other instruments pertaining to titles by searching public and private records for law firms, real estate agencies, or title insurance companies.	HIGH-END 45,200 MEDIAN 36,530 LOW-END 31,230	 Projected Annual Average Openings: <b>8</b>
<b>Short-term on-the-job training</b>				
Bill and account collectors	ECS	Locate and notify customers of delinquent accounts by mail, telephone, or personal visit to solicit payment. Duties include receiving payment and posting amount to customer's account; preparing statements to credit department if customer fails to respond; initiating repossession proceedings or service disconnection; and keeping records of collection and status of accounts.	HIGH-END 36,660 MEDIAN 29,320 LOW-END 24,200	 Projected Annual Average Openings: <b>51</b>
Loan interviewers and clerks	CES	Interview loan applicants to elicit information; investigate applicants' backgrounds and verify references; prepare loan request papers; and forward findings, reports, and documents to appraisal department. Review loan papers to ensure completeness, and complete transactions between loan establishment, borrowers, and sellers upon approval of loan.	HIGH-END 35,180 MEDIAN 29,380 LOW-END 25,600	 Projected Annual Average Openings: <b>23</b>
Tellers	CE	Receive and pay out money. Keep records of money and negotiable instruments involved in a financial institution's various transactions.	HIGH-END 25,620 MEDIAN 22,610 LOW-END 20,420	 Projected Annual Average Openings: <b>161</b>



# GOVERNMENT AND PUBLIC ADMINISTRATION OCCUPATIONS

***Have you served as an officer  
of a club or organization?***

***Do you like to plan and organize activities?***

***Are you interested in politics?***

***Would you like to work in another country?***

***Are rules and laws important to you?***

Through the national, state, and local governments, the public can express its will and make our way of life possible. Through government, individuals can act together to accomplish what cannot be done alone. Most of these actions are carried out only by the government. For example, the federal government includes the military for protection. It also includes ambassadors who represent us in foreign countries. It is Congress that passes laws. The Administration carries out and enforces those laws. You would find almost every occupation within the government. However, this Government and Public Administration career cluster focuses on those occupations that are unique.

## ***National Employment Outlook***

The job opportunities in the Federal Government are expected to decline. There are several reasons for this decrease. First, the government is cutting costs. Second, programs are using private contractors to do the work. Third, the implementation of programs is being turned over to state and local governments. In addition, there will be strong competition for any job openings.

Employment opportunities in state and local governments are expected to increase. The growth is a result of increased demand for services at the state and local level. Also, Federal programs are being turned over to states. However, many state governments are experiencing budget problems. If the problems continue, states may have to cut costs and employees. In all levels of government, employment is affected by the increased use of technology. As a result, the need for office support workers will grow slowly.

## ***Pathways***

### **Governance**

In the Governance pathway, you would be an elected or appointed government official. You would be in charge of making and carrying out public policy. This pathway includes the President and members of Congress, governors, state legislators, and local elected officials. It also includes the staff members who support them. You would work with the individuals and groups you speak for in the government.

### **National Security**

The military services protect the country and its citizens. In the National Security pathway, you might run a hospital, operate a tank, program computers, or repair a helicopter. The military provides you with

training and experience. You could serve in the active Army, Navy, Marine Corps, Air Force, and Coast Guard, their Reserve components, and the Air and Army National Guard.

### **Foreign Security**

People in the Foreign Security pathway work in embassies, consulates, or diplomatic missions and in Washington, D.C. In your job, you may manage the day-to-day operations of an embassy. Or you might analyze political and economic events and give advice to Congress or the President. Or you might help American citizens abroad.

# GOVERNMENT AND PUBLIC ADMINISTRATION OCCUPATIONS

## Planning

People who work in the Planning pathway develop plans for use of land. You would prepare for the growth of communities. In addition, you would help local officials make decisions about the best use of land and resources.

## Revenue and Taxation







People who work in the Revenue and Taxation pathway collect taxes. The taxes provide the money the national, state, and local governments need to operate.

## Regulation

People who work in the Regulation pathway protect our health, safety, and environment. You would make sure that our money, highways, airplanes, and power plants are safe. You would do inspections, audits, or investigations. Your goal is to enforce government rules and regulations.

## Public Management and Administration

In Public Management and Administration, you would do the work of the government. You would implement the plans and programs developed by the elected officials.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>First professional degree</b>				
Lawyers	ECIS	Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, or manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.	HIGH-END 89,750 MEDIAN 64,780 LOW-END 50,950	 Projected Annual Average Openings: <b>83</b>
<b>Bachelor's or higher degree, plus work experience</b>				
Management analysts	CEI	Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively. Includes program analysts and management consultants.	HIGH-END 77,990 MEDIAN 61,240 LOW-END 50,300	 Projected Annual Average Openings: <b>19</b>
<b>Bachelor's degree</b>				
Accountants and auditors	CEI	Examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others. Install or advise on systems of recording costs or other financial and budgetary data.	HIGH-END 64,490 MEDIAN 47,760 LOW-END 37,560	 Projected Annual Average Openings: <b>154</b>
Public relations specialists	AIE	Engage in promoting or creating an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media.	HIGH-END 50,660 MEDIAN 40,910 LOW-END 33,770	 Projected Annual Average Openings: <b>24</b>
<b>Postsecondary vocational training</b>				
Appraisers and assessors of real estate	CE	Appraise real property and estimate its fair value. May assess taxes in accordance with prescribed schedules.	HIGH-END 47,740 MEDIAN 41,960 LOW-END 36,760	 Projected Annual Average Openings: <b>18</b>
<b>Long-term on-the-job training</b>				
Compliance officers, except agriculture, construction, health and safety, and transportation	CR	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	HIGH-END 64,870 MEDIAN 47,610 LOW-END 40,270	 Projected Annual Average Openings: <b>19</b>

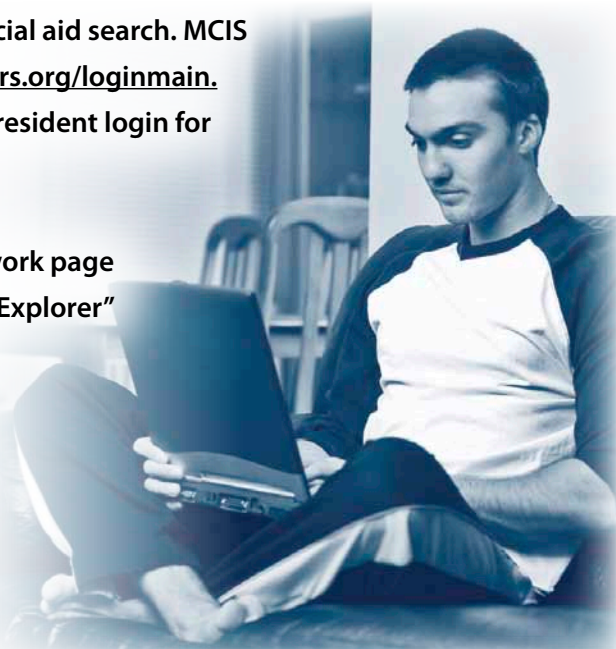
# GOVERNMENT AND PUBLIC ADMINISTRATION OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training</b>				
Court, municipal, and license clerks	CE	Perform clerical duties for courts of law, municipalities, or governmental licensing agencies and bureaus. May prepare docket of cases to be called; secure information for judges and court; prepare draft agendas or bylaws for town or city council; answer official correspondence; keep fiscal records and accounts; issue licenses or permits; and record data, administer tests, or collect fees.	<div> <div>HIGH-END</div> <div>MEDIAN</div> <div>LOW-END</div> </div> <div> <div>32,750</div> <div>28,170</div> <div>24,130</div> </div>	 Projected Annual Average Openings: <b>17</b>
Interviewers, except eligibility and loan	CE	Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.	<div> <div>HIGH-END</div> <div>MEDIAN</div> <div>LOW-END</div> </div> <div> <div>32,180</div> <div>26,390</div> <div>22,220</div> </div>	 Projected Annual Average Openings: <b>38</b>

## CAN'T FIND THE OCCUPATION YOU'RE LOOKING FOR?

Can't find a certain occupation in this guide? Or perhaps you want to learn more about one you did find? Try the Montana Career Information System (MCIS), a comprehensive guide to Montana occupations and a career planning tool that provides detailed information on more than 497 occupations, 120 programs of study, and Montana wages, employment, and outlook data. It also offers a scholarship and financial aid search. MCIS is available free of charge at <http://mtcis.intocareers.org/loginmain.aspx?SiteType=6&cookietest=y>. Use the Montana resident login for free access.

Also check out the Montana Career Resource Network page at [www.careers.mt.gov](http://www.careers.mt.gov). Features like "Occupation Explorer" will help you find information on specific jobs, including current and projected employment levels, skills needed, tasks performed, training programs available, and more. Other resources let you download career publications, and even search America's Job Bank for job openings in your area.







# HEALTH SCIENCE OCCUPATIONS

***Are science classes your favorite?***

***Do you enjoy helping people?***

***Have you served as a volunteer in a hospital?***

***Do you follow instructions exactly?***

***Can you work fast in an emergency?***

***Do you take good notes in class?***

In the Health Science cluster you would promote health and wellness or diagnose and treat injuries and disease. You could work directly with people. Or you could work in laboratories to get information used in research or diagnosis. Health service employees go to work at a variety of different sites. Some work in hospitals, offices, or laboratories. Others work on cruise ships, at sports arenas, or within communities.

## ***National Employment Outlook***

The outlook for employment in the Health Services cluster is very good. The number of elderly people is growing and they have greater healthcare needs. Advances in medical technology have increased the number of people who survive serious illnesses and injuries. These patients need more intensive therapy and care. The jobs in hospitals will grow the slowest. This is the result of an increase in outpatient care and services.

## ***Pathways***

### **Therapeutic Services**

In the Therapeutic Services pathway, you work directly with patients to improve their health. The contact with the patient may be limited to a visit or to contact over many months. You may provide direct care and treatment for patients. You may also give information and counseling so patients can care for themselves.

### **Diagnostics Services**

In the Diagnostics Services pathway, you would conduct tests and do evaluations. The goal is to assist with detecting and identifying diseases and injuries. Once the diagnosis is made, the test results would be used to set up a treatment plan.

### **Health Information**










You would be responsible for compiling patient information and records in the Health Information pathway. You might also use the records to create bills for services. Included in this pathway are administrators who plan and direct the delivery of health care. You may manage hospitals, nursing homes, clinics, or departments.

# HEALTH CARE OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>First professional degree</b>				
Family and general practitioners	IRC	Physicians who diagnose, treat, and help prevent diseases and injuries that commonly occur in the general population. May refer patients to specialists when needed for further diagnosis or treatment.	<p>HIGH-END <b>Not Available</b></p> <p>MEDIAN <b>141,580</b></p> <p>LOW-END <b>111,350</b></p>	<p>Projected Annual Average Openings: <b>13</b></p>
Pharmacists	ARE	Dispense drugs prescribed by physicians and other health practitioners and provide information to patients about medications and their use. May advise physicians and other health practitioners on the selection, dosage, interactions, and side effects of medications.	<p>HIGH-END <b>111,000</b></p> <p>MEDIAN <b>101,030</b></p> <p>LOW-END <b>89,060</b></p>	<p>Projected Annual Average Openings: <b>52</b></p>
Veterinarians	IRS	Diagnose, treat, or research diseases and injuries of animals. Includes veterinarians who conduct research and development, inspect livestock, or care for pets and companion animals.	<p>HIGH-END <b>77,990</b></p> <p>MEDIAN <b>64,630</b></p> <p>LOW-END <b>49,020</b></p>	<p>Projected Annual Average Openings: <b>24</b></p>
<b>Master's degree</b>				
Environmental scientists and specialists, including health	IR	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources.	<p>HIGH-END <b>63,340</b></p> <p>MEDIAN <b>53,670</b></p> <p>LOW-END <b>46,600</b></p>	<p>Projected Annual Average Openings: <b>46</b></p>
Librarians	ACI	Administer libraries and perform related library services. Work in a variety of settings, including public libraries, educational institutions, museums, corporations, government agencies, law firms, non-profit organizations, and healthcare providers. Tasks may include selecting, acquiring, cataloging, classifying, circulating, and maintaining library materials; and furnishing reference, bibliographical, and readers' advisory services. May perform in-depth, strategic research, and synthesize, analyze, edit, and filter information. May set up or work with databases and information systems to catalogue and access information.	<p>HIGH-END <b>54,210</b></p> <p>MEDIAN <b>43,330</b></p> <p>LOW-END <b>32,660</b></p>	<p>Projected Annual Average Openings: <b>22</b></p>
Physical therapists	I	Assess, plan, organize, and participate in rehabilitative programs that improve mobility, relieve pain, increase strength, and improve or correct disabling conditions resulting from disease or injury.	<p>HIGH-END <b>72,890</b></p> <p>MEDIAN <b>63,320</b></p> <p>LOW-END <b>53,480</b></p>	<p>Projected Annual Average Openings: <b>28</b></p>
Speech-language pathologists	SRI	Assess and treat persons with speech, language, voice, and fluency disorders. May select alternative communication systems and teach their use. May perform research related to speech and language problems.	<p>HIGH-END <b>66,900</b></p> <p>MEDIAN <b>55,050</b></p> <p>LOW-END <b>37,900</b></p>	<p>Projected Annual Average Openings: <b>8</b></p>
<b>Bachelor's or higher degree, plus work experience</b>				
Administrative services managers	ECS	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services.	<p>HIGH-END <b>76,120</b></p> <p>MEDIAN <b>60,750</b></p> <p>LOW-END <b>45,850</b></p>	<p>Projected Annual Average Openings: <b>21</b></p>
Management analysts	CEI	Conduct organizational studies and evaluations, design systems and procedures, conduct work simplification and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively.	<p>HIGH-END <b>77,990</b></p> <p>MEDIAN <b>61,240</b></p> <p>LOW-END <b>50,300</b></p>	<p>Projected Annual Average Openings: <b>19</b></p>

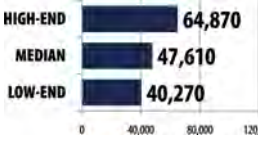

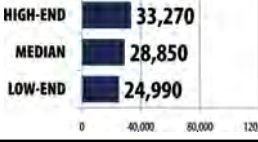

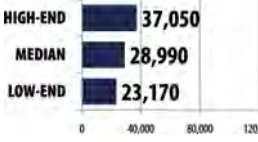

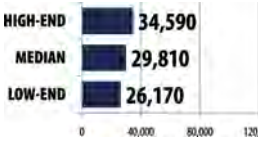

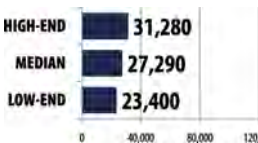

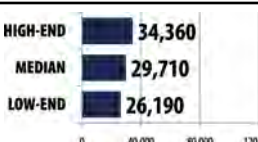

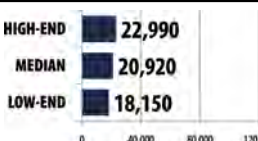

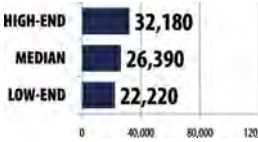



# HEALTH CARE OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience (cont.)</b>				
Medical and health services managers	ES	Plan, direct, or coordinate medical and health services in hospitals, clinics, managed care organizations, public health agencies, or similar organizations.	HIGH-END 87,730 MEDIAN 69,640 LOW-END 54,740	 Projected Annual Average Openings: <b>30</b>
<b>Bachelor's degree</b>				
Medical and clinical laboratory technologists	SI	Perform complex medical laboratory tests for diagnosis, treatment, and prevention of disease. May train or supervise staff.	HIGH-END 63,300 MEDIAN 54,060 LOW-END 45,760	 Projected Annual Average Openings: <b>16</b>
<b>Associate degree</b>				
Medical records and health information technicians	CR	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system.	HIGH-END 36,070 MEDIAN 29,130 LOW-END 23,660	 Projected Annual Average Openings: <b>35</b>
Radiologic technologists and technicians	IR	Take x rays and CAT scans or administer nonradioactive materials into patient's blood stream for diagnostic purposes. Includes technologists who specialize in other scanning modalities.	HIGH-END 56,590 MEDIAN 47,420 LOW-END 40,660	 Projected Annual Average Openings: <b>23</b>
Respiratory therapists	SI	Assess, treat, and care for patients with breathing disorders. Assume primary responsibility for all respiratory care modalities, including the supervision of respiratory therapy technicians. Initiate and conduct therapeutic procedures; maintain patient records; and select, assemble, check, and operate equipment.	HIGH-END 56,420 MEDIAN 48,560 LOW-END 41,690	 Projected Annual Average Openings: <b>12</b>
<b>Postsecondary vocational training</b>				
Emergency medical technicians and paramedics	SC	Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.	HIGH-END 32,710 MEDIAN 25,520 LOW-END 19,330	 Projected Annual Average Openings: <b>19</b>
Licensed practical and licensed vocational nurses	SRI	Care for ill, injured, or convalescing patients or persons with disabilities in hospitals, nursing homes, clinics, private homes, group homes, and similar institutions. May work under the supervision of a registered nurse. Licensing required.	HIGH-END 40,390 MEDIAN 35,670 LOW-END 31,200	 Projected Annual Average Openings: <b>113</b>
Massage therapists	SR	Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.	HIGH-END 43,900 MEDIAN 31,350 LOW-END 19,910	 Projected Annual Average Openings: <b>18</b>
Medical transcriptionists	SR	Transcribe medical reports recorded by physicians and other healthcare practitioners using various electronic devices, covering office visits, emergency room visits, diagnostic imaging studies, operations, chart reviews, and final summaries. Transcribe dictated reports and translate abbreviations into fully understandable form. Edit as necessary and return reports in either printed or electronic form for review and signature, or correction.	HIGH-END 38,630 MEDIAN 31,580 LOW-END 26,370	 Projected Annual Average Openings: <b>11</b>



# HEALTH CARE OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Long-term on-the-job training</b>				
Compliance officers, except agriculture, construction, health and safety, and transportation	CR	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	<p>HIGH-END 64,870</p> <p>MEDIAN 47,610</p> <p>LOW-END 40,270</p> 	 <p>Projected Annual Average Openings: <b>19</b></p>
<b>Moderate-term on-the-job training</b>				
Billing and posting clerks and machine operators	CRS	Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.	<p>HIGH-END 33,270</p> <p>MEDIAN 28,850</p> <p>LOW-END 24,990</p> 	 <p>Projected Annual Average Openings: <b>48</b></p>
Customer service representatives	CE	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints. Excludes individuals whose duties are primarily installation, sales, or repair.	<p>HIGH-END 37,050</p> <p>MEDIAN 28,990</p> <p>LOW-END 23,170</p> 	 <p>Projected Annual Average Openings: <b>250</b></p>
Dental assistants	SR	Assist dentist, set up equipment, prepare patient for treatment, and keep records.	<p>HIGH-END 34,590</p> <p>MEDIAN 29,810</p> <p>LOW-END 26,170</p> 	 <p>Projected Annual Average Openings: <b>35</b></p>
Medical assistants		Perform administrative and certain clinical duties under the direction of a physician. Administrative duties may include scheduling appointments, maintaining medical records, billing, and coding information for insurance purposes. Clinical duties may include taking and recording vital signs and medical histories, preparing patients for examination, drawing blood, and administering medications as directed by physician.	<p>HIGH-END 31,280</p> <p>MEDIAN 27,290</p> <p>LOW-END 23,400</p> 	 <p>Projected Annual Average Openings: <b>32</b></p>
Pharmacy technicians	RI	Prepare medications under the direction of a pharmacist. May measure, mix, count out, label, and record amounts and dosages of medications according to prescription orders.	<p>HIGH-END 34,360</p> <p>MEDIAN 29,710</p> <p>LOW-END 26,190</p> 	 <p>Projected Annual Average Openings: <b>62</b></p>
<b>Short-term on-the-job training</b>				
Home health aides	CR	Provide routine individualized healthcare such as changing bandages and dressing wounds, and applying topical medications to the elderly, convalescents, or persons with disabilities at the patient's home or in a care facility. Monitor or report changes in health status. May also provide personal care such as bathing, dressing, and grooming of patient.	<p>HIGH-END 22,990</p> <p>MEDIAN 20,920</p> <p>LOW-END 18,150</p> 	 <p>Projected Annual Average Openings: <b>106</b></p>
Interviewers, except eligibility and loan	CE	Interview persons by telephone, mail, in person, or by other means for the purpose of completing forms, applications, or questionnaires. Ask specific questions, record answers, and assist persons with completing form. May sort, classify, and file forms.	<p>HIGH-END 32,180</p> <p>MEDIAN 26,390</p> <p>LOW-END 22,220</p> 	 <p>Projected Annual Average Openings: <b>38</b></p>

# HOSPITALITY AND TOURISM OCCUPATIONS

**Can you talk easily with all kinds of people?**

**Do you participate in athletic activities?**

**Do you enjoy travel?**

**Have you worked in a restaurant?**

**Do you like to cook?**

**Do you like to plan family recreational activities?**

In the Hospitality and Tourism cluster, you could work in a restaurant, hotel, sports arena, or travel agency. You might manage operations of a college cafeteria. Or you might guide high school students on a trip to Spain. Or you might rent equipment at a recreation center.

## National Employment Outlook

There will be employment opportunities in hospitality and tourism in the future. Amusement and recreation activities will increase for a number of reasons. First, incomes are increasing and more people are spending money in this area. Many people have more leisure time, and more people are aware of the benefits of physical fitness. Businesses in hospitality and tourism are targeting the elderly, the fastest growing part of the population.

## Pathways

### Restaurant and Food and Beverage Services

In the Restaurant and Food and Beverage Services cluster, you would make sure that customers received the food and drinks they ordered. You might prepare the food at a large restaurant or a fast-food business. You could take orders and deliver the food. Or you could clean up after the customer leaves.

### Lodging

Employees in the Lodging pathway take care of guests who stay at hotels or motels. You might work directly with guests. Or you might provide the services that make their stay at the hotel pleasant.

### Travel and Tourism










Employees in the Travel and Tourism pathway make sure travelers have a good experience on trips. You might help a traveler plan and arrange a trip. You might write guidebooks. Or you might plan and present educational information about a specific location or area.

### Recreation, Amusements, and Attractions

In the Recreation, Amusements, and Attractions pathway, you might find exciting and diverse work situations. The work is often demanding but usually not boring. You will need good customer service skills. Each of the business operations in this area is unique and has different requirements for employees.










Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
General and operations managers	ECS	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.	HIGH-END 97,640 MEDIAN 70,280 LOW-END 49,500	 Projected Annual Average Openings: <b>273</b>
Sales managers	EC	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	HIGH-END 100,880 MEDIAN 71,330 LOW-END 54,990	 Projected Annual Average Openings: <b>25</b>

# HOSPITALITY AND TOURISM OCCUPATIONS











Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's degree</b>				
Social and community service managers	SEA	Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.	HIGH-END 56,940 MEDIAN 40,960 LOW-END 31,250	 Projected Annual Average Openings: <b>25</b>
<b>Postsecondary vocational training</b>				
Fitness trainers and aerobics instructors	SA	Instruct or coach groups or individuals in exercise activities. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills.	HIGH-END 34,360 MEDIAN 26,750 LOW-END 18,270	 Projected Annual Average Openings: <b>44</b>
<b>Work experience in a related occupation</b>				
Chefs and head cooks	ESR	Direct and may participate in the preparation, seasoning, and cooking of salads, soups, fish, meats, vegetables, desserts, or other foods. May plan and price menu items, order supplies, and keep records and accounts.	HIGH-END 47,460 MEDIAN 36,510 LOW-END 25,120	 Projected Annual Average Openings: <b>11</b>
First-line supervisors/managers of food preparation and serving workers	SEC	Directly supervise and coordinate activities of workers engaged in preparing and serving food.	HIGH-END 34,040 MEDIAN 27,790 LOW-END 22,670	 Projected Annual Average Openings: <b>63</b>
Food service managers	ECS	Plan, direct, or coordinate activities of an organization or department that serves food and beverages.	HIGH-END 54,420 MEDIAN 45,400 LOW-END 36,100	 Projected Annual Average Openings: <b>25</b>
Gaming Supervisors	CSE	Supervise and coordinate activities of workers in assigned gaming areas. Circulate among tables and observe operations. Ensure that stations and games are covered for each shift. May explain and interpret operating rules of house to patrons. May plan and organize activities and services for guests in hotels/casinos. May address service complaints.	HIGH-END 34,480 MEDIAN 28,790 LOW-END 24,620	 Projected Annual Average Openings: <b>31</b>
Lodging managers	ECS	Plan, direct, or coordinate activities of an organization or department that provides lodging and other accommodations.	HIGH-END 50,030 MEDIAN 36,270 LOW-END 23,830	 Projected Annual Average Openings: <b>38</b>
<b>Work experience in a related occupation (cont.)</b>				
Self-enrichment education teachers	SA	Teach or instruct courses other than those that normally lead to an occupational objective or degree. Courses may include self-improvement, nonvocational, and nonacademic subjects. Teaching may or may not take place in a traditional educational institution.	HIGH-END 38,500 MEDIAN 33,510 LOW-END 22,560	 Projected Annual Average Openings: <b>29</b>
<b>Long-term on-the-job training</b>				
Cooks, restaurant	RC	Prepare, season, and cook dishes such as soups, meats, vegetables, or desserts in restaurants. May order supplies, keep records and accounts, price items on menu, or plan menu.	HIGH-END 23,640 MEDIAN 19,460 LOW-END 17,290	 Projected Annual Average Openings: <b>184</b>



# HOSPITALITY AND TOURISM OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Long-term on-the-job training (cont.)</b>				
Police and sheriff's patrol officers	RS	Maintain order and protect life and property by enforcing local, tribal, State, or Federal laws and ordinances. Perform a combination of the following duties: patrol a specific area; direct traffic; issue traffic summonses; investigate accidents; apprehend and arrest suspects, or serve legal processes of courts.	HIGH-END 51,780 MEDIAN 44,320 LOW-END 36,480	 Projected Annual Average Openings: 63
<b>Moderate-term on-the-job training</b>				
Bookkeeping, accounting, and auditing clerks	CE	Compute, classify, and record numerical data to keep financial records complete. Perform any combination of routine calculating, posting, and verifying duties to obtain primary financial data for use in maintaining accounting records. May also check the accuracy of figures, calculations, and postings pertaining to business transactions recorded by other workers.	HIGH-END 36,800 MEDIAN 28,830 LOW-END 22,270	 Projected Annual Average Openings: 515
Bus drivers, transit and intercity	RC	Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.	HIGH-END 30,840 MEDIAN 25,990 LOW-END 21,670	 Projected Annual Average Openings: 9
Executive secretaries and administrative assistants	CR	Provide high-level administrative support by conducting research, preparing statistical reports, handling information requests, and performing clerical functions such as preparing correspondence, receiving visitors, arranging conference calls, and scheduling meetings. May also train and supervise lower-level clerical staff.	HIGH-END 44,350 MEDIAN 35,890 LOW-END 29,620	 Projected Annual Average Openings: 228
<b>Short-term on-the-job training</b>				
Amusement and recreation attendants	ECS	Perform a variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.	HIGH-END 19,660 MEDIAN 17,490 LOW-END 15,920	 Projected Annual Average Openings: 67
Bartenders	RC	Mix and serve drinks to patrons, directly or through waitstaff.	HIGH-END 19,300 MEDIAN 17,770 LOW-END 16,280	 Projected Annual Average Openings: 316
Counter attendants, cafeteria, food concession, and coffee shop	ESR	Serve food to diners at counter or from a steam table. Counter attendants who also wait tables are included in "Waiters and Waitresses" (35-3031).	HIGH-END 19,300 MEDIAN 17,250 LOW-END 15,910	 Projected Annual Average Openings: 117
Dining room and cafeteria attendants and bartender helpers	SE	Facilitate food service. Clean tables, remove dirty dishes, replace soiled table linens; set tables; replenish supply of clean linens, silverware, glassware, and dishes; supply service bar with food; and serve items such as water, condiments, and coffee to patrons.	HIGH-END 19,110 MEDIAN 17,550 LOW-END 16,120	 Projected Annual Average Openings: 60
Food servers, nonrestaurant	RSE	Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars.	HIGH-END 24,040 MEDIAN 18,820 LOW-END 16,840	 Projected Annual Average Openings: 20

# HOSPITALITY AND TOURISM OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training (cont.)</b>				
Hosts and hostesses, restaurant, lounge, and coffee shop	RSE	Welcome patrons, seat them at tables or in lounge, and help ensure quality of facilities and service.	HIGH-END 18,470 MEDIAN 17,220 LOW-END 16,070	 Projected Annual Average Openings: <b>88</b>
Hotel, motel, and resort desk clerks	CES	Accommodate hotel, motel, and resort patrons by registering and assigning rooms to guests, issuing room keys or cards, transmitting and receiving messages, keeping records of occupied rooms and guests' accounts, making and confirming reservations, and presenting statements to and collecting payments from departing guests.	HIGH-END 20,810 MEDIAN 18,150 LOW-END 16,460	 Projected Annual Average Openings: <b>140</b>
Janitors and cleaners, except maids and housekeeping cleaners	ERC	Keep buildings in clean and orderly condition. Perform heavy cleaning duties, such as cleaning floors, shampooing rugs, washing walls and glass, and removing rubbish. Duties may include tending furnace and boiler, performing routine maintenance activities, notifying management of need for repairs, and cleaning snow or debris from sidewalk.	HIGH-END 26,740 MEDIAN 21,780 LOW-END 17,750	 Projected Annual Average Openings: <b>386</b>
Maids and housekeeping cleaners	ERC	Perform any combination of light cleaning duties to maintain private households or commercial establishments, such as hotels and hospitals, in a clean and orderly manner. Duties may include making beds, replenishing linens, cleaning rooms and halls, and vacuuming.	HIGH-END 20,400 MEDIAN 18,240 LOW-END 16,680	 Projected Annual Average Openings: <b>268</b>
Nonfarm animal caretakers	EC	Feed, water, groom, bathe, exercise, or otherwise care for pets and other nonfarm animals, such as dogs, cats, ornamental fish or birds, zoo animals, and mice. Work in settings such as kennels, animal shelters, zoos, circuses, and aquariums. May keep records of feedings, treatments, and animals received or discharged. May clean, disinfect, and repair cages, pens, or fish tanks.	HIGH-END 22,760 MEDIAN 18,320 LOW-END 16,620	 Projected Annual Average Openings: <b>24</b>
Production, planning, and expediting clerks	RC	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.	HIGH-END 54,260 MEDIAN 43,560 LOW-END 30,350	 Projected Annual Average Openings: <b>18</b>
Reservation and transportation ticket agents and travel clerks	CES	Make and confirm reservations for transportation or lodging, or sell transportation tickets. May check baggage and direct passengers to designated concourse, pier, or track; deliver tickets, contact individuals and groups to inform them of package tours; or provide tourists with travel or transportation information.	HIGH-END 25,430 MEDIAN 22,460 LOW-END 20,130	 Projected Annual Average Openings: <b>18</b>
Switchboard operators, including answering service	ECS	Operate telephone business systems equipment or switchboards to relay incoming, outgoing, and interoffice calls. May supply information to callers and record messages.	HIGH-END 26,650 MEDIAN 23,170 LOW-END 20,740	 Projected Annual Average Openings: <b>12</b>
Taxi drivers and chauffeurs	RC	Drive automobiles, vans, or limousines to transport passengers. May occasionally carry cargo. Includes hearse drivers.	HIGH-END 24,370 MEDIAN 20,490 LOW-END 17,250	 Projected Annual Average Openings: <b>16</b>
Waiters and waitresses	R	Take orders and serve food and beverages to patrons at tables in dining establishment.	HIGH-END 18,970 MEDIAN 17,470 LOW-END 16,080	 Projected Annual Average Openings: <b>696</b>



# HUMAN SERVICES OCCUPATIONS

**Do you help friends with their personal problems?**

**Do you care about people and want to help them?**

**Have you cared for children or done babysitting?**

**Are you a good listener?**

**Have you planned programs for school or community organizations?**

In the Human Services cluster, you would work with individuals and families to meet their personal needs.

## National Employment Outlook

You should be able to find jobs in human services in the future. The expected growth is partly due to expanded services for the elderly. In addition, the demand for childcare services is increasing. In the occupations in this cluster where wages are low, the turnover is high. Service for the mentally ill and disabled have been increasing. However, state and local governments might cut programs for these groups to deal with budget problems.

## Pathways

### Early Childhood Development and Services

In the Early Childhood Development and Services pathway, you would care for and teach children. You would provide services in childcare centers, pre-schools, public schools, and private homes.

### Counseling and Mental Health Services



In the Counseling and Mental Health Services pathway, you would assist people with their problems. The problems may be related to personal, family, educational, or career issues. You provide mental health care in hospitals, clinics, schools, or private offices.

### Family and Community Services

Employees in this pathway help individuals cope with daily living. You may counsel troubled individuals. Or you may help people get jobs by providing them with needed training. You might care for people who are elderly or have disabilities.










### Personal Care Services

In this pathway, you could assist individuals with their personal appearance. This might include cutting, coloring, and styling hair. Or you might give manicures, pedicures, and scalp and facial treatments. Also, within personal care services, you might make funeral arrangements for grieving families.










Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>First professional degree</b>				
Clergy	SAE	Conduct religious worship and perform other spiritual functions associated with beliefs and practices of religious faith or denomination. Provide spiritual and moral guidance and assistance to members.	HIGH-END 46,450 MEDIAN 35,770 LOW-END 27,360	 Projected Annual Average Openings: <b>26</b>
<b>Doctoral degree</b>				
Clinical, counseling, and school psychologists	ISA	Diagnose and treat mental disorders; learning disabilities; and cognitive, behavioral, and emotional problems using individual, child, family, and group therapies. May design and implement behavior modification programs.	HIGH-END 58,020 MEDIAN 46,250 LOW-END 36,730	 Projected Annual Average Openings: <b>16</b>



# HUMAN SERVICES OCCUPATIONS










Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Master's degree</b>				
Educational, vocational, and school counselors	SAC	Counsel individuals and provide group educational and vocational guidance services.	HIGH-END 55,170 MEDIAN 42,670 LOW-END 32,940	 Projected Annual Average Openings: <b>35</b>
Rehabilitation counselors	SIA	Counsel individuals to maximize the independence and employability of persons coping with personal, social, and vocational difficulties that result from birth defects, illness, disease, accidents, or the stress of daily life. Coordinate activities for residents of care and treatment facilities. Assess client needs and design and implement rehabilitation programs that may include personal and vocational counseling, training, and job placement.	HIGH-END 37,830 MEDIAN 30,590 LOW-END 21,930	 Projected Annual Average Openings: <b>11</b>
Substance abuse and behavioral disorder counselors	SIA	Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs. Excludes "Social Workers" (21-1021 through 21-1029), "Psychologists" (19-3031 through 19-3039), and "Mental Health Counselors" (21-1014) providing these services.	HIGH-END 37,100 MEDIAN 26,820 LOW-END 21,720	 Projected Annual Average Openings: <b>26</b>
<b>Bachelor's or higher degree, plus work experience</b>				
Financial managers	EC	Plan, direct, or coordinate accounting, investing, banking, insurance, securities, and other financial activities of a branch, office, or department of an establishment.	HIGH-END 98,900 MEDIAN 76,430 LOW-END 57,170	 Projected Annual Average Openings: <b>25</b>
Sales managers	EC	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	HIGH-END 100,880 MEDIAN 71,330 LOW-END 54,990	 Projected Annual Average Openings: <b>25</b>
<b>Bachelor's degree</b>				
Child, family, and school social workers	SEA	Provide social services and assistance to improve the social and psychological functioning of children and their families and to maximize the family well-being and the academic functioning of children. May assist parents, arrange adoptions, and find foster homes for abandoned or abused children. In schools, they address such problems as teenage pregnancy, misbehavior, and truancy. May also advise teachers.	HIGH-END 41,570 MEDIAN 34,790 LOW-END 28,330	 Projected Annual Average Openings: <b>29</b>
Directors, religious activities and education	SEA	Plan, direct, or coordinate programs designed to promote the religious education or activities of a denominational group. May provide counseling and guidance relative to marital, health, financial, and religious problems.	HIGH-END 29,260 MEDIAN 23,230 LOW-END 17,780	 Projected Annual Average Openings: <b>11</b>
Insurance sales agents	ES	Sell life, property, casualty, health, automotive, or other types of insurance. May refer clients to independent brokers, work as an independent broker, or be employed by an insurance company.	HIGH-END 70,770 MEDIAN 39,690 LOW-END 28,720	 Projected Annual Average Openings: <b>85</b>
Personal financial advisors	SEC	Advise clients on financial plans using knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, tax status, and financial objectives.	HIGH-END 80,140 MEDIAN 52,730 LOW-END 34,120	 Projected Annual Average Openings: <b>33</b>

# HUMAN SERVICES OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's degree (cont.)</b>				
Property, real estate, and community association managers	EC	Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Includes managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (including rights-of-way).	HIGH-END 37,250 MEDIAN 27,580 LOW-END 20,250	 Projected Annual Average Openings: <b>52</b>
Recreation workers	SR	Conduct recreation activities with groups in public, private, or volunteer agencies or recreation facilities. Organize and promote activities, such as arts and crafts, sports, games, music, dramatics, social recreation, camping, and hobbies, taking into account the needs and interests of individual members.	HIGH-END 26,810 MEDIAN 20,900 LOW-END 17,830	 Projected Annual Average Openings: <b>46</b>
Securities, commodities, and financial services sales agents	ESC	Buy and sell securities or commodities in investment and trading firms, or provide financial services to businesses and individuals. May advise customers about stocks, bonds, mutual funds, commodities, and market conditions.	HIGH-END 91,830 MEDIAN 49,240 LOW-END 31,520	 Projected Annual Average Openings: <b>37</b>
Social and community service managers	SEA	Plan, direct, or coordinate the activities of a social service program or community outreach organization. Oversee the program or organization's budget and policies regarding participant involvement, program requirements, and benefits. Work may involve directing social workers, counselors, or probation officers.	HIGH-END 56,940 MEDIAN 40,960 LOW-END 31,250	 Projected Annual Average Openings: <b>25</b>
<b>Associate degree</b>				
Medical records and health information technicians	CR	Compile, process, and maintain medical records of hospital and clinic patients in a manner consistent with medical, administrative, ethical, legal, and regulatory requirements of the health care system. Process, maintain, compile, and report patient information for health requirements and standards in a manner consistent with the healthcare industry's numerical coding system.	HIGH-END 36,070 MEDIAN 29,130 LOW-END 23,660	 Projected Annual Average Openings: <b>35</b>
<b>Postsecondary vocational training</b>				
Fitness trainers and aerobics instructors	SA	Instruct or coach groups or individuals in exercise activities. Demonstrate techniques and form, observe participants, and explain to them corrective measures necessary to improve their skills.	HIGH-END 34,360 MEDIAN 26,750 LOW-END 18,270	 Projected Annual Average Openings: <b>44</b>
Hairdressers, hairstylists, and cosmetologists	R	Provide beauty services, such as shampooing, cutting, coloring, and styling hair, and massaging and treating scalp. May apply makeup, dress wigs, perform hair removal, and provide nail and skin care services.	HIGH-END 31,170 MEDIAN 22,660 LOW-END 18,020	 Projected Annual Average Openings: <b>42</b>
<b>Postsecondary vocational training (cont.)</b>				
Massage therapists	SR	Perform therapeutic massages of soft tissues and joints. May assist in the assessment of range of motion and muscle strength, or propose client therapy plans.	HIGH-END 43,900 MEDIAN 31,350 LOW-END 19,910	 Projected Annual Average Openings: <b>18</b>
Preschool teachers, except special education	SAC	Instruct preschool-aged children in activities designed to promote social, physical, and intellectual growth needed for primary school in preschool, day care center, or other child development facility.	HIGH-END 26,470 MEDIAN 23,270 LOW-END 20,650	 Projected Annual Average Openings: <b>40</b>

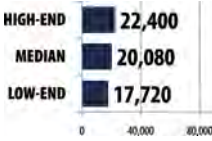

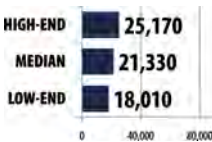



# HUMAN SERVICES OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Work experience in a related occupation</b>				
Self-enrichment education teachers	SA	Teach or instruct courses other than those that normally lead to an occupational objective or degree. Courses may include self-improvement, nonvocational, and nonacademic subjects. Teaching may or may not take place in a traditional educational institution.	HIGH-END 38,500 MEDIAN 33,510 LOW-END 22,560	 Projected Annual Average Openings: <b>29</b>
Wholesale and retail buyers, except farm products	ECS	Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products.	HIGH-END 49,050 MEDIAN 34,810 LOW-END 27,770	 Projected Annual Average Openings: <b>30</b>
<b>Moderate-term on-the-job training</b>				
Customer service representatives	CE	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.	HIGH-END 37,050 MEDIAN 28,990 LOW-END 23,170	 Projected Annual Average Openings: <b>250</b>
Sales representatives, wholesale and manufacturing, except technical and scientific products	ECS	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	HIGH-END 56,790 MEDIAN 40,140 LOW-END 27,970	 Projected Annual Average Openings: <b>162</b>
Sales representatives, wholesale and manufacturing, technical and scientific products	ESC	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.	HIGH-END 71,990 MEDIAN 48,680 LOW-END 31,230	 Projected Annual Average Openings: <b>37</b>
Social and human service assistants	SCA	Assist in providing client services in a wide variety of fields, such as psychology, rehabilitation, or social work, including support for families. May assist clients in identifying and obtaining available benefits and social and community services. May assist social workers with developing, organizing, and conducting programs to prevent and resolve problems relevant to substance abuse, human relationships, rehabilitation, or dependent care.	HIGH-END 29,650 MEDIAN 23,310 LOW-END 18,930	 Projected Annual Average Openings: <b>83</b>
<b>Short-term on-the-job training</b>				
Amusement and recreation attendants	ECS	Perform a variety of attending duties at amusement or recreation facility. May schedule use of recreation facilities, maintain and provide equipment to participants of sporting events or recreational pursuits, or operate amusement concessions and rides.	HIGH-END 19,660 MEDIAN 17,490 LOW-END 15,920	 Projected Annual Average Openings: <b>67</b>
Child care workers	ESA	Attend to children at schools, businesses, private households, and childcare institutions. Perform a variety of tasks, such as dressing, feeding, bathing, and overseeing play.	HIGH-END 19,250 MEDIAN 17,700 LOW-END 16,160	 Projected Annual Average Openings: <b>262</b>
Food servers, nonrestaurant	RSE	Serve food to individuals outside of a restaurant environment, such as in hotel rooms, hospital rooms, residential care facilities, or cars.	HIGH-END 24,040 MEDIAN 18,820 LOW-END 16,840	 Projected Annual Average Openings: <b>20</b>



# HUMAN SERVICES OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training (Cont.)</b>				
Personal and home care aides	SE	Assist the elderly, convalescents, or persons with disabilities with daily living activities at the person's home or in a care facility. Duties performed at a place of residence may include keeping house (making beds, doing laundry, washing dishes) and preparing meals. May provide assistance at non-residential care facilities. May advise families, the elderly, convalescents, and persons with disabilities regarding such things as nutrition, cleanliness, and household activities.	 <p>HIGH-END 22,400 MEDIAN 20,080 LOW-END 17,720</p>	 Projected Annual Average Openings: <b>169</b>
Teacher assistants	SCA	Perform duties that are instructional in nature or deliver direct services to students or parents. Serve in a position for which a teacher has ultimate responsibility for the design and implementation of educational programs and services.	 <p>HIGH-END 25,170 MEDIAN 21,330 LOW-END 18,010</p>	 Projected Annual Average Openings: <b>118</b>

## INFORMATION TECHNOLOGY OCCUPATIONS

**Do you enjoy working with computers?**

**Have you created your own webpage?**

**Is mathematics a favorite subject?**

**Are you organized and detail-oriented?**

**Do you learn new computer programs quickly?**

Information Technology (IT) is an area that is growing and always changing with new developments. In IT, you would be part of a cluster that continues to make an impact on society and individuals. You would have the opportunity to work in all types and sizes of businesses from Microsoft to your local hospital.

Employees in Information Technology work with computer hardware, software, multimedia, and network systems. In this cluster, you might design new computer equipment or computer games. Or you might make sure that the software or networks are working. In addition, you might have to make sure that people know how to use them. Or you might manage whole networks that link workers in all parts of the world.

### National Employment Outlook

There will be many opportunities for employment in the Information Technology cluster in the future. Employees in this cluster will be expected to have a high level of skills and to keep up with changes in technology. More companies are relying on information technology. Computers and related hardware are getting cheaper and faster and more advanced. Electronic commerce is becoming more common. All this increases the need for employees with expertise in information technology.

# INFORMATION TECHNOLOGY OCCUPATIONS

## Pathways

### Network Systems

The work done by the employees in the Network Systems pathway is critical to the success of almost every company. You would be involved in designing, installing, and maintaining network systems. These systems allow workers to share information and projects. For example, in a medical facility, a network system would allow several doctors to view a patient's X-rays at the same time. They then could work together to determine the problem and best treatment.

### Information Support and Services

In the Information Support and Services pathway, you would set up computers, install the software, and make sure that everything is working. If there is a problem, you would find the best solution and test it. You may also be expected to teach other em-

ployees how to use the software. In some businesses, you may have to make adaptations in the software to meet specific company needs. Or you may integrate software programs or databases.

### Programming and Software Development

In the Programming and Software Development pathway, you would design and test new software programs. You would be developing tomorrow's products for businesses and individuals. You could be employed by large software companies or small businesses that design programs for special groups such as medical offices. To work in this area, you have to know about operating systems and programming languages.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
Computer and information systems managers	ECI	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.	<p>HIGH-END 112,890 MEDIAN 88,480 LOW-END 73,670</p>	 Projected Annual Average Openings: <b>9</b>
<b>Bachelor's degree</b>				
Graphic designers	AE	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	<p>HIGH-END 41,940 MEDIAN 31,600 LOW-END 25,740</p>	 Projected Annual Average Openings: <b>37</b>

# LAW, PUBLIC SAFETY, AND SECURITY OCCUPATIONS

***Are you able to work under pressure?***

***Can you work with various kinds of people?***

***Do you like to help people?***

***Can you work in the face of danger?***

***Are you good at winning arguments?***

***Do you instruct friends on laws and regulations?***

If you are interested in working in this cluster, you have several options. One option is to guard the public by enforcing the law. Or you might provide fire protection and security. Another option is to provide legal services people who commit crimes.

## ***National Employment Outlook***

Employment opportunities in law, public safety, and security depend on several factors. First of all, turnover will create job openings as people leave their jobs or retire. Work in law enforcement, fire protection, and corrections can be dangerous and stressful. These three areas also depend on government funding. To lower crime rates, more money has been budgeted to increase law enforcement. As a result, the prison population has increased. So, new jobs have been created. However, state and local governments are facing financial problems and may cut spending in these areas to balance budgets.

The amount and types of legal services available have increased. As incomes increase, there is more money to spend on these services. However, law firms are relying more on the work of paralegals and are hiring fewer lawyers to provide those services.

## ***Pathways***

### **Correction Services**

Workers in the Correction Services specialty are responsible for watching people who have been arrested or who have been convicted of a crime. Your primary mission would be to protect the public. In addition, you might treat or educate the offenders. Or you might work to help people leave corrections and return to a life in the public.

### **Emergency and Fire Management Services**

Every year, fires and other emergencies take lives and destroy property. Firefighters and emergency services workers help protect the public against these dangers. You might be the first emergency personnel at the scene of a traffic accident or medical emergency. In the Emergency and Fire management Services pathway, you may be called upon to put out a fire, treat injuries, or perform other vital functions.

### **Security and Protective Services**

Employees in the Security and Protective Services pathway often work in public buildings, factories, warehouses, government buildings, and military bases. You might protect products, computers and machines, laboratories, or other employees. You check people and vehicles and walk through hallways, rooms, and buildings. Or you may watch camera monitors.










# LAW, PUBLIC SAFETY, AND SECURITY OCCUPATIONS

## Law Enforcement Services




People depend on police officers and detectives to protect their lives and property. In the Law Enforcement Services pathway, you might have duties that range from controlling traffic to investigating crimes. You would maintain order; enforce laws; issue traffic tickets; and investigate accidents. In addition, you would present evidence in court; serve legal documents for the court system; and arrest and process offenders.

## Legal Services

The legal system affects nearly every aspect of our lives, from buying a home to crossing the street. For this reason, you would hold positions of great responsibility and are obligated to follow a strict code of ethics.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>First professional degree</b>				
Lawyers	ECIS	Represent clients in criminal and civil litigation and other legal proceedings, draw up legal documents, and manage or advise clients on legal transactions. May specialize in a single area or may practice broadly in many areas of law.	HIGH-END 89,750 MEDIAN 64,780 LOW-END 50,950	 Projected Annual Average Openings: <b>83</b>
<b>Master's degree</b>				
Substance abuse and behavioral disorder counselors	SIA	Counsel and advise individuals with alcohol, tobacco, drug, or other problems, such as gambling and eating disorders. May counsel individuals, families, or groups or engage in prevention programs.	HIGH-END 37,100 MEDIAN 26,820 LOW-END 21,720	 Projected Annual Average Openings: <b>26</b>
<b>Associate degree</b>				
Paralegals and legal assistants	EC	Assist lawyers by researching legal precedent, investigating facts, or preparing legal documents. Conduct research to support a legal proceeding, to formulate a defense, or to initiate legal action.	HIGH-END 43,300 MEDIAN 36,210 LOW-END 30,630	 Projected Annual Average Openings: <b>26</b>
<b>Postsecondary vocational training</b>				
Emergency medical technicians and paramedics	SC	Assess injuries, administer emergency medical care, and extricate trapped individuals. Transport injured or sick persons to medical facilities.	HIGH-END 32,710 MEDIAN 25,520 LOW-END 19,330	 Projected Annual Average Openings: <b>19</b>
<b>Work experience in a related occupation</b>				
Private detectives and investigators	RS	Detect occurrences of unlawful acts or infractions of rules in private establishment, or seek, examine, and compile information for client.	<b>WAGES NOT AVAILABLE</b>	 Projected Annual Average Openings: <b>5</b>
<b>Long-term on-the-job training</b>				
Fire fighters	SCR	Control and extinguish fires or respond to emergency situations where life, property, or the environment is at risk. Duties may include fire prevention, emergency medical service, hazardous material response, search and rescue, and disaster management.	HIGH-END 51,500 MEDIAN 43,460 LOW-END 34,910	 Projected Annual Average Openings: <b>33</b>
Police and sheriff's patrol officers	RS	Maintain order, enforce laws and ordinances, and protect life and property in an assigned patrol district. Perform combination of following duties: patrol a specific area on foot or in a vehicle; direct traffic; issue traffic summonses; investigate accidents.	HIGH-END 51,780 MEDIAN 44,320 LOW-END 36,480	 Projected Annual Average Openings: <b>63</b>

# LAW, PUBLIC SAFETY, AND SECURITY OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Moderate-term on-the-job training</b>				
Correctional officers and jailers	RC	Guard inmates in penal or rehabilitative institutions in accordance with established regulations and procedures. May guard prisoners in transit between jail, courtroom, prison, or other point. Includes deputy sheriffs and police who spend the majority of their time guarding prisoners in correctional institutions.	HIGH-END 36,600 MEDIAN 31,720 LOW-END 27,020	 Projected Annual Average Openings: <b>55</b>
Police, fire, and ambulance dispatchers	CES	Operate radio, telephone, or computer equipment at emergency response centers. Receive reports from the public of crimes, disturbances, fires, and medical or police emergencies. Relay information to law enforcement and emergency response personnel. May maintain contact with caller until responders arrive.	HIGH-END 35,260 MEDIAN 30,330 LOW-END 26,710	 Projected Annual Average Openings: <b>17</b>
<b>Short-term on-the-job training</b>				
Security guards	ECS	Guard, patrol, or monitor premises to prevent theft, violence, or infractions of rules. May operate x-ray and metal detector equipment. Excludes "Transportation Security Screeners" (33-9093).	HIGH-END 28,130 MEDIAN 22,740 LOW-END 19,930	 Projected Annual Average Openings: <b>80</b>

## MANUFACTURING, INSTALLATION, AND REPAIR OCCUPATIONS

**Are you good at working with your hands?**

**Can you explain to others how a machine works?**

**Can you visualize how a machine works?**

**Do you set up or repair stereo equipment?**

**Do you enjoy reading about the latest developments in electronics?**

In the Manufacturing, Installation, and Repair career cluster, you can choose one of several options. You might design a new product or determine how the product will be made. Another option is to make the product. The final option is to install and repair the product once it has been purchased.

### National Employment Outlook

Job opportunities in manufacturing are expected to continue to be limited in the future. Improvements in technology and production equipment means fewer workers are needed to make more products. In addition, many companies are moving production to other countries where wages are lower.

Installation and repair will also need fewer workers in the future. Products are more reliable and need fewer repairs. Also, many products cost less which means consumers replace the item rather than repair it. Many stores are part of a large chain that provides repair and installation services. These large businesses hire fewer workers and do not use the self-employed repair shops.

# MANUFACTURING, INSTALLATION, AND REPAIR OCCUPATIONS

## Pathways

### Production

In the Production pathway, you might work for large companies or small shops. You would create the parts needed to make products sold to consumers. Or, you would assemble the parts into products.

### Manufacturing Production Process Development

In the Manufacturing Production Process Development, you would be involved with design and planning. You might design new products. Then you would decide and plan how the product is going to be made. You would work with production workers to set up machines to turn out the new manufactured goods.

### Maintenance, Installation, and Repair




Once products are sold and delivered to customers, workers in Maintenance, Installation, and Repair take over. You might install the product in a home or business. If there were problems with the item, you would be called upon to make repairs. Another option would be to make sure that the product is always working properly.

### Quality Assurance

The production process may have many steps and products can have many parts. As a result, the work of employees in the Quality Assurance, pathway is very important. You would make sure that manufactured goods meet the design standards and work properly and safely. If there are problems in production, you might be asked to find the cause and propose a solution.

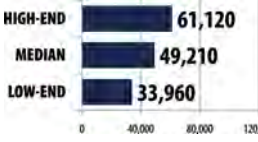

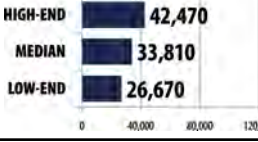

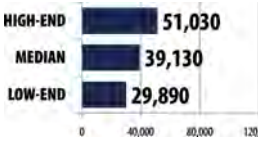

### Logistics and Inventory Control

For manufacturing to go smoothly, workers need the materials to make the products. If they have to wait, the company loses money. In the Logistics and Inventory Control pathway, you get materials to the production workers. You might order the items or check them into the company warehouse when they are delivered. Or, you might deliver the materials to the assembly area. In addition, you could pack and ship the finished products.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's degree</b>				
Mechanical engineers	RI	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.	HIGH-END 85,200 MEDIAN 64,310 LOW-END 48,420	 Projected Annual Average Openings: <b>13</b>
<b>Work experience in a related occupation</b>				
First-line supervisors/managers of production and operating workers	RC	Directly supervise and coordinate the activities of production and operating workers, such as inspectors, precision workers, machine setters and operators, assemblers, fabricators, and plant and system operators.	HIGH-END 66,080 MEDIAN 48,220 LOW-END 37,240	 Projected Annual Average Openings: <b>31</b>
Purchasing agents, except wholesale, retail, and farm products	EC	Purchase machinery, equipment, tools, parts, supplies, or services necessary for the operation of an establishment. Purchase raw or semi-finished materials for manufacturing.	HIGH-END 59,330 MEDIAN 46,560 LOW-END 37,490	 Projected Annual Average Openings: <b>17</b>



# MANUFACTURING, INSTALLATION, AND REPAIR OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Long-term on-the-job training</b>				
Industrial machinery mechanics	R	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.		 Projected Annual Average Openings: <b>23</b>
<b>Moderate-term on-the-job training</b>				
Inspectors, testers, sorters, samplers, and weighers	RC	Inspect, test, sort, sample, or weigh nonagricultural raw materials or processed, machined, fabricated, or assembled parts or products for defects, wear, and deviations from specifications. May use precision measuring instruments and complex test equipment.		 Projected Annual Average Openings: <b>8</b>
Sheet metal workers	R	Fabricate, assemble, install, and repair sheet metal products and equipment, such as ducts, control boxes, drainpipes, and furnace casings. Work may involve any of the following: setting up and operating fabricating machines to cut, bend, and straighten sheet metal; shaping metal over anvils, blocks, or forms using hammer; operating soldering and welding equipment to join sheet metal parts; or inspecting, assembling, and smoothing seams and joints of burred surfaces. Includes sheet metal duct installers who install prefabricated sheet metal ducts used for heating, air conditioning, or other purposes.		 Projected Annual Average Openings: <b>29</b>

## MARKETING, SALES, AND SERVICE OCCUPATIONS

**Do you sell advertising space for the school yearbook or newspaper?**

**Are you good at persuading people to do things?**

**Do you like to do public speaking or debating?**

**Are you good at organizing your own time?**

**Are you friendly and outgoing?**

If you are interested in working in the Marketing, Sales, and Service cluster, you would help businesses sell products. You might advertise and promote products so customers would want to buy them. Or you might sell products and services directly to customers. Or you might use the Internet to reach customers.

### National Employment Outlook

In the future, there will be many job opportunities in the Marketing, Sales, and Service cluster. The number of people employed in sales and marketing is very large. Numerous job openings will result from turnover. Many people leave for higher paying jobs or for the opportunity to work regular hours. E-commerce has affected the number of sales persons who are needed because companies and individuals place orders directly. The glamour of advertising attracts many jobseekers. As a result there are many more jobseekers than there are job openings. New jobs will be created because of an increased demand for advertising services. However, the increased use of technology could replace some workers.

# MARKETING, SALES, AND SERVICE OCCUPATIONS

## Pathways

### Management and Entrepreneurship

In the Management and Entrepreneurship pathway, employees direct the marketing operations. The responsibilities include advertising, marketing, sales, and public relations. You might work in a large corporation and direct the activities of several employees. Or you might work for a small company and do all the activities yourself.

### Professional Sales and Marketing







Employees in the Professional Sales and Marketing pathway make sure that goods and services are sold to consumers. The consumers may be other businesses or individuals.

### Buying and Merchandising

Employees in the Buying and Merchandising pathway get the product into the hands of the customer. You might buy the products that the businesses sell. Or you may design the display and packaging for the product. Or you might assist the customers with making decisions about which products best meets their needs.

### Marketing Communications and Promotion

Marketing Communications and Promotion employees design and implement marketing plans. You might create ads for television or magazines. Or you might develop spot ads for radio so an organization becomes better known by the public.











Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
Sales managers	EC	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	HIGH-END 100,880 MEDIAN 71,330 LOW-END 54,990	 Projected Annual Average Openings: <b>25</b>
<b>Bachelor's degree</b>				
Interior designers	AER	Plan, design, and furnish interiors of residential, commercial, or industrial buildings. Formulate design which is practical, aesthetic, and conducive to intended purposes, such as raising productivity, selling merchandise, or improving life style. May specialize in a particular field, style, or phase of interior design.	HIGH-END 45,860 MEDIAN 37,680 LOW-END 31,510	 Projected Annual Average Openings: <b>12</b>
Property, real estate, and community association managers	EC	Plan, direct, or coordinate the selling, buying, leasing, or governance activities of commercial, industrial, or residential real estate properties. Includes managers of homeowner and condominium associations, rented or leased housing units, buildings, or land (including rights-of-way).	HIGH-END 37,250 MEDIAN 27,580 LOW-END 20,250	 Projected Annual Average Openings: <b>52</b>
Public relations specialists	AIE	Engage in promoting or creating an intended public image for individuals, groups, or organizations. May write or select material for release to various communications media.	HIGH-END 50,660 MEDIAN 40,910 LOW-END 33,770	 Projected Annual Average Openings: <b>24</b>
<b>Postsecondary vocational training</b>				
Appraisers and assessors of real estate	CE	Appraise real property and estimate its fair value. May assess taxes in accordance with prescribed schedules.	HIGH-END 47,740 MEDIAN 41,960 LOW-END 36,760	 Projected Annual Average Openings: <b>18</b>
Real estate sales agents	ERS	Rent, buy, or sell property for clients. Perform duties, such as study property listings, interview prospective clients, accompany clients to property site, discuss conditions of sale, and draw up real estate contracts. Includes agents who represent buyer.	HIGH-END 66,970 MEDIAN 37,960 LOW-END 30,940	 Projected Annual Average Openings: <b>45</b>

# MARKETING, SALES, AND SERVICE OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Work experience in a related occupation</b>				
Real estate brokers	ES	Operate real estate office, or work for commercial real estate firm, overseeing real estate transactions. Other duties usually include selling real estate or renting properties and arranging loans.	<p>HIGH-END 47,860</p> <p>MEDIAN 34,110</p> <p>LOW-END 23,800</p>	<p>Projected Annual Average Openings: 10</p>
Wholesale and retail buyers, except farm products	ECS	Buy merchandise or commodities, other than farm products, for resale to consumers at the wholesale or retail level, including both durable and nondurable goods. Analyze past buying trends, sales records, price, and quality of merchandise to determine value and yield. Select, order, and authorize payment for merchandise according to contractual agreements. May conduct meetings with sales personnel and introduce new products. Includes assistant wholesale and retail buyers of nonfarm products.	<p>HIGH-END 49,050</p> <p>MEDIAN 34,810</p> <p>LOW-END 27,770</p>	<p>Projected Annual Average Openings: 30</p>
<b>Moderate-term on-the-job training</b>				
Advertising sales agents	ERC	Sell or solicit advertising space, time, or media in publications, signage, TV, radio, or Internet establishments or public spaces.	<p>HIGH-END 46,670</p> <p>MEDIAN 30,830</p> <p>LOW-END 22,290</p>	<p>Projected Annual Average Openings: 28</p>
Demonstrators and product promoters	ERS	Demonstrate merchandise and answer questions for the purpose of creating public interest in buying the product. May sell demonstrated merchandise.	<p>HIGH-END 24,740</p> <p>MEDIAN 18,930</p> <p>LOW-END 17,330</p>	<p>Projected Annual Average Openings: 23</p>
Floral designers	ARE	Design, cut, and arrange live, dried, or artificial flowers and foliage.	<p>HIGH-END 24,040</p> <p>MEDIAN 20,690</p> <p>LOW-END 17,820</p>	<p>Projected Annual Average Openings: 11</p>
Merchandise displayers and window trimmers	ARE	Plan and erect commercial displays, such as those in windows and interiors of retail stores and at trade exhibitions.	<p>HIGH-END 30,260</p> <p>MEDIAN 24,470</p> <p>LOW-END 18,460</p>	<p>Projected Annual Average Openings: 10</p>
Sales representatives, wholesale and manufacturing, except technical and scientific products	ECS	Sell goods for wholesalers or manufacturers to businesses or groups of individuals. Work requires substantial knowledge of items sold.	<p>HIGH-END 56,790</p> <p>MEDIAN 40,140</p> <p>LOW-END 27,970</p>	<p>Projected Annual Average Openings: 162</p>
Sales representatives, wholesale and manufacturing, technical and scientific products	ESC	Sell goods for wholesalers or manufacturers where technical or scientific knowledge is required in such areas as biology, engineering, chemistry, and electronics, normally obtained from at least 2 years of post-secondary education.	<p>HIGH-END 71,990</p> <p>MEDIAN 48,680</p> <p>LOW-END 31,230</p>	<p>Projected Annual Average Openings: 37</p>
<b>Short-term on-the-job training</b>				
Cashiers	ECS	Receive and disburse money in establishments other than financial institutions. May use electronic scanners, cash registers, or related equipment. May process credit or debit card transactions and validate checks.	<p>HIGH-END 21,500</p> <p>MEDIAN 18,500</p> <p>LOW-END 16,710</p>	<p>Projected Annual Average Openings: 713</p>



# MARKETING, SALES, AND SERVICE OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training (cont.)</b>				
Counter and rental clerks	ECS	Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment.	HIGH-END 28,650 MEDIAN 20,410 LOW-END 17,240	 Projected Annual Average Openings: <b>123</b>
Driver/sales workers	RSC	Drive truck or other vehicle over established routes or within an established territory and sell or deliver goods, such as food products, including restaurant take-out items, or pick up or deliver items such as commercial laundry. May also take orders, collect payment, or stock merchandise at point of delivery. Includes newspaper delivery drivers.	HIGH-END 33,100 MEDIAN 21,390 LOW-END 17,550	 Projected Annual Average Openings: <b>28</b>
Office clerks, general	CE	Perform duties too varied and diverse to be classified in any specific office clerical occupation, requiring knowledge of office systems and procedures. Clerical duties may be assigned in accordance with the office procedures of individual establishments and may include a combination of answering telephones, bookkeeping, typing or word processing, stenography, office machine operation, and filing.	HIGH-END 29,140 MEDIAN 23,330 LOW-END 19,100	 Projected Annual Average Openings: <b>231</b>
Order clerks	CSE	Receive and process incoming orders for materials, merchandise, classified ads, or services such as repairs, installations, or rental of facilities. Generally receives orders via mail, phone, fax, or other electronic means. Duties include informing customers of receipt, prices, shipping dates, and delays; preparing contracts; and handling complaints.	HIGH-END 31,550 MEDIAN 24,620 LOW-END 20,580	 Projected Annual Average Openings: <b>11</b>
Packers and Packagers, Hand	RC	Pack or package by hand a wide variety of products and materials.	HIGH-END 23,580 MEDIAN 19,170 LOW-END 16,940	 Projected Annual Average Openings: <b>19</b>
Production, planning, and expediting clerks	RC	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.	HIGH-END 54,260 MEDIAN 43,560 LOW-END 30,350	 Projected Annual Average Openings: <b>18</b>
Retail salespersons	CER	Sell merchandise, such as furniture, motor vehicles, appliances, or apparel to consumers.	HIGH-END 27,310 MEDIAN 20,920 LOW-END 17,530	 Projected Annual Average Openings: <b>1106</b>
Service Station Attendants	RE	Service automobiles, buses, trucks, boats, and other automotive or marine vehicles with fuel, lubricants, and accessories. Collect payment for services and supplies. May lubricate vehicle, change motor oil, install antifreeze, or replace lights or other accessories, such as windshield wiper blades or fan belts. May repair or replace tires.	HIGH-END 24,160 MEDIAN 21,380 LOW-END 19,080	 Projected Annual Average Openings: <b>39</b>
Shipping, receiving, and traffic clerks	RC	Verify and maintain records on incoming and outgoing shipments. Prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying and recording incoming merchandise or material; and arranging for the transportation of products.	HIGH-END 32,170 MEDIAN 25,860 LOW-END 21,290	 Projected Annual Average Openings: <b>60</b>
Stock clerks and order fillers	CE	Receive, store, and issue sales floor merchandise, materials, equipment, and other items from stockroom, warehouse, or storage yard to fill shelves, racks, tables, or customers' orders. May mark prices on merchandise and set up sales displays.	HIGH-END 25,380 MEDIAN 20,930 LOW-END 17,810	 Projected Annual Average Openings: <b>131</b>

# SCIENCE, TECHNOLOGY, MATHEMATICS, & ENGINEERING OCCUPATIONS

**Is science one of your favorite subjects?**

**Do you prepare projects for science fairs?**

**Do you enjoy reading science magazines?**

**Are you detail-oriented?**

**Do you like to know how things work?**

**Are you a “numbers person”?**

If you choose to work in the Science, Technology, Engineering, or Mathematics cluster, you have several avenues. One avenue is to do scientific research in laboratories or the field. Another option is to be involved in the planning and design of products and systems. The last avenue is to provide support to the scientists, mathematicians, and engineers so they can do their work.

## National Employment Outlook

The job opportunities in engineering are expected to increase slowly in the near future. Companies are turning more to engineers to help improve product design and increase productivity. In addition, the number of students graduating from engineering programs is not increasing. However, improvements in technology mean that one engineer can work on multiple projects at different locations at one time. In addition, many engineering jobs are related to the national defense and defense expenditures in those areas are not increasing.

Many scientists depend on federal funding for their research projects. Federal spending is decreasing. The number of students graduating from science programs is increasing. As a result, it is more difficult to obtain grants for research. The prospects for people with a bachelor's or master's degrees are improving. Job growth will be concentrated in the areas of biotechnology and pharmacy.

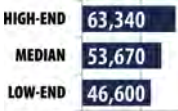

## Pathways

### Science and Mathematics

Those who choose careers in the Science and Mathematics pathway apply knowledge and skills in the real world. Your goal would be to improve the physical and human environment. In your work, you would engage in discovery to gather and process data to solve problems.

### Engineering and Technology

To work in the Engineering and Technology pathway, you would solve problems involving design, development, or production. You would work on projects to evaluate problems and develop and test solutions. You could also provide advice and consultation.

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Master's degree</b>				
Environmental scientists and specialists, including health	IR	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources.	 <p>HIGH-END 63,340 MEDIAN 53,670 LOW-END 46,600</p>	 <p>Projected Annual Average Openings: <b>46</b></p>

# SCIENCE, TECHNOLOGY, MATH, & ENGINEERING OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Bachelor's or higher degree, plus work experience</b>				
Computer and information systems managers	ECI	Plan, direct, or coordinate activities in such fields as electronic data processing, information systems, systems analysis, and computer programming.	<p>HIGH-END 112,890 MEDIAN 88,480 LOW-END 73,670</p>	<p>Projected Annual Average Openings: 9</p>
General and operations managers	ECS	Plan, direct, or coordinate the operations of public or private sector organizations. Duties and responsibilities include formulating policies, managing daily operations, and planning the use of materials and human resources, but are too diverse and general in nature to be classified in any one functional area of management or administration, such as personnel, purchasing, or administrative services.	<p>HIGH-END 97,640 MEDIAN 70,280 LOW-END 49,500</p>	<p>Projected Annual Average Openings: 273</p>
<b>Bachelor's degree</b>				
Civil Engineers	RIC	Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems.	<p>HIGH-END 74,410 MEDIAN 62,000 LOW-END 53,820</p>	<p>Projected Annual Average Openings: 47</p>
Conservation scientists	IR	Manage, improve, and protect natural resources to maximize their use without damaging the environment. May conduct soil surveys and develop plans to eliminate soil erosion or to protect rangelands. May instruct farmers, agricultural production managers, or ranchers in best ways to use crop rotation, contour plowing, or terracing to conserve soil and water; in the number and kind of livestock and forage plants best suited to particular ranges; and in range and farm improvements, such as fencing and reservoirs for stock watering.	<p>HIGH-END 71,100 MEDIAN 61,220 LOW-END 47,450</p>	<p>Projected Annual Average Openings: 21</p>
Electrical engineers	RI	Research, design, develop, test, or supervise the manufacturing and installation of electrical equipment, components, or systems for commercial, industrial, military, or scientific use.	<p>HIGH-END 82,340 MEDIAN 66,670 LOW-END 45,610</p>	<p>Projected Annual Average Openings: 17</p>
Graphic designers	AE	Design or create graphics to meet specific commercial or promotional needs, such as packaging, displays, or logos. May use a variety of mediums to achieve artistic or decorative effects.	<p>HIGH-END 41,940 MEDIAN 31,600 LOW-END 25,740</p>	<p>Projected Annual Average Openings: 37</p>
Mechanical engineers	RI	Perform engineering duties in planning and designing tools, engines, machines, and other mechanically functioning equipment. Oversee installation, operation, maintenance, and repair of equipment such as centralized heat, gas, water, and steam systems.	<p>HIGH-END 85,200 MEDIAN 64,310 LOW-END 48,420</p>	<p>Projected Annual Average Openings: 13</p>
<b>Postsecondary vocational training</b>				
Architectural and civil drafters	RCA	Prepare detailed drawings of architectural and structural features of buildings or drawings and topographical relief maps used in civil engineering projects, such as highways, bridges, and public works. Use knowledge of building materials, engineering practices, and mathematics to complete drawings.	<p>HIGH-END 49,380 MEDIAN 40,650 LOW-END 34,490</p>	<p>Projected Annual Average Openings: 20</p>
<b>Moderate-term on-the-job training</b>				
Surveying and mapping technicians	RCI	Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features.	<p>HIGH-END 46,530 MEDIAN 38,790 LOW-END 32,550</p>	<p>Projected Annual Average Openings: 27</p>



# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS

**Do you have good eyesight and quick reflexes?**    **Do you repair your family's and friends' vehicles?**

**Can you estimate distances accurately?**

**Do you read automotive or mechanical magazines?**

**Would you like to learn to fly an airplane?**

**Have you driven a truck or tractor to do farm work?**

If you are interested in working in this cluster, you have three avenues. One is to move people and products by road, air, rail, or water. You would drive or pilot different means of transportation. The second is to repair and maintain the vehicles, trains, planes, and ships to keep people and products moving. The third option is to work behind the scenes to make sure the products and people get to the right place on time.

## National Employment Outlook

The demand for trucking and warehousing services is expected to increase. This means new jobs will be created. In addition, each year truck drivers leave the occupation because of the long periods away from home and the long hours of driving.

The employment opportunities in rail transportation are not expected to increase. As a result of improved technology, fewer workers are needed to arrange and operate trains.

## Pathways

### Transportation Operations

In the Transportation Operations cluster, you would drive trucks or pilot trains, planes, or ships that carry goods and people around the country or world. Or you would provide the support to make sure that cargo and passengers are safe and secure and arrive on time.

### Logistics Planning and Management

To get products to a location, a company may have to use different types of transportation. For example, to get a product from China to your home town, a company might use ships, trains, and trucks. This is a complex process. In the Logistics Planning and Management pathway, you would make sure products arrive when and where they should at the lowest cost.

### Warehousing and Distribution Center Operations

In the Warehousing and Distribution Center Operations pathway, employees work at ports, terminals,

or warehouses. You would receive, sort, label, and load products. Your job is to make sure items from all over the world are delivered to the right place on time.











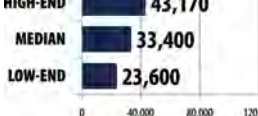

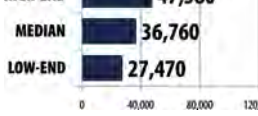



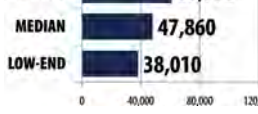

### Facility and Mobile Equipment Maintenance

Transportation relies on equipment. It must work properly when needed. In the Facility and Mobile Equipment Maintenance pathway, you would keep machinery running and fueled. You would also look for ways to operate equipment safely but for less money.

### Infrastructure Planning and Management

In the Transportation Systems/Infrastructure Planning, Management, and Regulation pathway, you would design and operate transportation systems. These systems include airports, railroads, and interstate highways. Or you might enforce laws and regulations to make travel safer. Many of the employees in this pathway work for government agencies.

# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Master's degree</b>				
Environmental scientists and specialists, including health	IR	Conduct research or perform investigation for the purpose of identifying, abating, or eliminating sources of pollutants or hazards that affect either the environment or the health of the population. Using knowledge of various scientific disciplines, may collect, synthesize, study, report, and recommend action based on data derived from measurements or observations of air, food, soil, water, and other sources.	<p>HIGH-END 63,340</p> <p>MEDIAN 53,670</p> <p>LOW-END 46,600</p> 	 <p>Projected Annual Average Openings: 46</p>
<b>Bachelor's or higher degree, plus work experience</b>				
Administrative services managers	ECS	Plan, direct, or coordinate one or more administrative services of an organization, such as records and information management, mail distribution, facilities planning and maintenance, custodial operations, and other office support services.	<p>HIGH-END 76,120</p> <p>MEDIAN 60,750</p> <p>LOW-END 45,850</p> 	 <p>Projected Annual Average Openings: 21</p>
Sales managers	EC	Plan, direct, or coordinate the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives. Analyze sales statistics gathered by staff to determine sales potential and inventory requirements and monitor the preferences of customers.	<p>HIGH-END 100,880</p> <p>MEDIAN 71,330</p> <p>LOW-END 54,990</p> 	 <p>Projected Annual Average Openings: 25</p>
<b>Bachelor's degree</b>				
Civil Engineers	RIC	Perform engineering duties in planning, designing, and overseeing construction and maintenance of building structures, and facilities, such as roads, railroads, airports, bridges, harbors, channels, dams, irrigation projects, pipelines, power plants, and water and sewage systems.	<p>HIGH-END 74,410</p> <p>MEDIAN 62,000</p> <p>LOW-END 53,820</p> 	 <p>Projected Annual Average Openings: 47</p>
<b>Associate degree</b>				
Civil engineering technicians	RIC	Apply theory and principles of civil engineering in planning, designing, and overseeing construction and maintenance of structures and facilities under the direction of engineering staff or physical scientists.	<p>HIGH-END 48,950</p> <p>MEDIAN 43,190</p> <p>LOW-END 34,810</p> 	 <p>Projected Annual Average Openings: 16</p>
<b>Postsecondary vocational training</b>				
Automotive service technicians and mechanics	RCE	Diagnose, adjust, repair, or overhaul automotive vehicles.	<p>HIGH-END 43,170</p> <p>MEDIAN 33,400</p> <p>LOW-END 23,600</p> 	 <p>Projected Annual Average Openings: 147</p>
Bus and truck mechanics and diesel engine specialists	RC	Diagnose, adjust, repair, or overhaul buses and trucks, or maintain and repair any type of diesel engines. Includes mechanics working primarily with automobile or marine diesel engines.	<p>HIGH-END 47,580</p> <p>MEDIAN 36,760</p> <p>LOW-END 27,470</p> 	 <p>Projected Annual Average Openings: 42</p>
Mobile heavy equipment mechanics, except engines	RC	Diagnose, adjust, repair, or overhaul mobile mechanical, hydraulic, and pneumatic equipment, such as cranes, bulldozers, graders, and conveyors, used in construction, logging, and surface mining.	<p>HIGH-END 54,220</p> <p>MEDIAN 46,270</p> <p>LOW-END 39,190</p> 	 <p>Projected Annual Average Openings: 44</p>
<b>Work experience in a related occupation</b>				
First-line supervisors/managers of transportation and material-moving machine and vehicle operators	RIC	Directly supervise and coordinate activities of transportation and material-moving machine and vehicle operators and helpers.	<p>HIGH-END 60,770</p> <p>MEDIAN 47,860</p> <p>LOW-END 38,010</p> 	 <p>Projected Annual Average Openings: 21</p>

# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Long-term on-the-job training</b>				
Automotive body and related repairers	ERC	Repair and refinish automotive vehicle bodies and straighten vehicle frames.	<p>HIGH-END 44,800</p> <p>MEDIAN 38,180</p> <p>LOW-END 31,860</p>	<p>Projected Annual Average Openings: 43</p>
Compliance officers, except agriculture, construction, health and safety, and transportation	CR	Examine, evaluate, and investigate eligibility for or conformity with laws and regulations governing contract compliance of licenses and permits, and perform other compliance and enforcement inspection and analysis activities not classified elsewhere.	<p>HIGH-END 64,870</p> <p>MEDIAN 47,610</p> <p>LOW-END 40,270</p>	<p>Projected Annual Average Openings: 19</p>
Electricians	R	Install, maintain, and repair electrical wiring, equipment, and fixtures. Ensure that work is in accordance with relevant codes. May install or service street lights, intercom systems, or electrical control systems.	<p>HIGH-END 58,790</p> <p>MEDIAN 52,130</p> <p>LOW-END 41,460</p>	<p>Projected Annual Average Openings: 138</p>
Industrial machinery mechanics	R	Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.	<p>HIGH-END 61,120</p> <p>MEDIAN 49,210</p> <p>LOW-END 33,960</p>	<p>Projected Annual Average Openings: 23</p>
<b>Moderate-term on-the-job training</b>				
Billing and posting clerks and machine operators	CRS	Compile, compute, and record billing, accounting, statistical, and other numerical data for billing purposes. Prepare billing invoices for services rendered or for delivery or shipment of goods.	<p>HIGH-END 33,270</p> <p>MEDIAN 28,850</p> <p>LOW-END 24,990</p>	<p>Projected Annual Average Openings: 48</p>
Bus drivers, transit and intercity	RC	Drive bus or motor coach, including regular route operations, charters, and private carriage. May assist passengers with baggage. May collect fares or tickets.	<p>HIGH-END 30,840</p> <p>MEDIAN 25,990</p> <p>LOW-END 21,670</p>	<p>Projected Annual Average Openings: 9</p>
Customer service representatives	CE	Interact with customers to provide information in response to inquiries about products and services and to handle and resolve complaints.	<p>HIGH-END 37,050</p> <p>MEDIAN 28,990</p> <p>LOW-END 23,170</p>	<p>Projected Annual Average Openings: 250</p>
Dispatchers, except police, fire, and ambulance	CSE	Schedule and dispatch workers, work crews, equipment, or service vehicles for conveyance of materials, freight, or passengers, or for normal installation, service, or emergency repairs rendered outside the place of business. Duties may include using radio, telephone, or computer to transmit assignments and compiling statistics and reports on work progress.	<p>HIGH-END 42,580</p> <p>MEDIAN 32,230</p> <p>LOW-END 25,370</p>	<p>Projected Annual Average Openings: 25</p>
Surveying and mapping technicians	RCI	Perform surveying and mapping duties, usually under the direction of an engineer, surveyor, cartographer, or photogrammetrist to obtain data used for construction, mapmaking, boundary location, mining, or other purposes. May calculate mapmaking information and create maps from source data, such as surveying notes, aerial photography, satellite data, or other maps to show topographical features, political boundaries, and other features. May verify accuracy and completeness of maps.	<p>HIGH-END 46,530</p> <p>MEDIAN 38,790</p> <p>LOW-END 32,550</p>	<p>Projected Annual Average Openings: 27</p>



# TRANSPORTATION, DISTRIBUTION, AND LOGISTICS OCCUPATIONS

Occupation Title	Interest Profile	Job Description	Annual Wages	Outlook
<b>Short-term on-the-job training</b>				
Bus drivers, school	R	Transport students or special clients, such as the elderly or persons with disabilities. Ensure adherence to safety rules. May assist passengers in boarding or exiting.	<p>HIGH-END 35,610</p> <p>MEDIAN 28,420</p> <p>LOW-END 23,050</p>	<p>Projected Annual Average Openings: <b>65</b></p>
Counter and rental clerks	ECS	Receive orders, generally in person, for repairs, rentals, and services. May describe available options, compute cost, and accept payment.	<p>HIGH-END 28,650</p> <p>MEDIAN 20,410</p> <p>LOW-END 17,240</p>	<p>Projected Annual Average Openings: <b>123</b></p>
Packers and Packagers, Hand	RC	Pack or package by hand a wide variety of products and materials.	<p>HIGH-END 23,580</p> <p>MEDIAN 19,170</p> <p>LOW-END 16,940</p>	<p>Projected Annual Average Openings: <b>19</b></p>
Production, planning, and expediting clerks	RC	Coordinate and expedite the flow of work and materials within or between departments of an establishment according to production schedule. Duties include reviewing and distributing production, work, and shipment schedules; conferring with department supervisors to determine progress of work and completion dates; and compiling reports on progress of work, inventory levels, costs, and production problems.	<p>HIGH-END 54,260</p> <p>MEDIAN 43,560</p> <p>LOW-END 30,350</p>	<p>Projected Annual Average Openings: <b>18</b></p>
Shipping, receiving, and traffic clerks	RC	Verify and maintain records on incoming and outgoing shipments. Prepare items for shipment. Duties include assembling, addressing, stamping, and shipping merchandise or material; receiving, unpacking, verifying and recording incoming merchandise or material; and arranging for the transportation of products.	<p>HIGH-END 32,170</p> <p>MEDIAN 25,860</p> <p>LOW-END 21,290</p>	<p>Projected Annual Average Openings: <b>60</b></p>
Taxi drivers and chauffeurs	RC	Drive automobiles, vans, or limousines to transport passengers. May occasionally carry cargo. Includes hearse drivers.	<p>HIGH-END 24,370</p> <p>MEDIAN 20,490</p> <p>LOW-END 17,250</p>	<p>Projected Annual Average Openings: <b>16</b></p>
Tire repairers and changers	RC	Repair and replace tires.	<p>HIGH-END 29,770</p> <p>MEDIAN 24,780</p> <p>LOW-END 21,760</p>	<p>Projected Annual Average Openings: <b>34</b></p>
Truck drivers, light or delivery services	ERS	Drive a light vehicle, such as a truck or van, with a capacity of less than 26,000 pounds Gross Vehicle Weight (GVW), primarily to deliver or pick up merchandise or to deliver packages. May load and unload vehicle.	<p>HIGH-END 37,900</p> <p>MEDIAN 25,740</p> <p>LOW-END 19,910</p>	<p>Projected Annual Average Openings: <b>153</b></p>



# *Montana*

## **Department of Labor and Industry**



**P. O. Box 1728**

**Helena, MT 59624-1728**

**[www.ourfactsyourfuture.org](http://www.ourfactsyourfuture.org)**

**Phone: (406) 444-2430**

**Toll-free: (800) 541-3904**

**Fax: (406) 444-2638**

16,000 copies of this public document were published at an estimated cost of \$0.57 per copy, for a total cost of \$9,044, which includes \$7,217 for printing and \$1,827 for distribution.