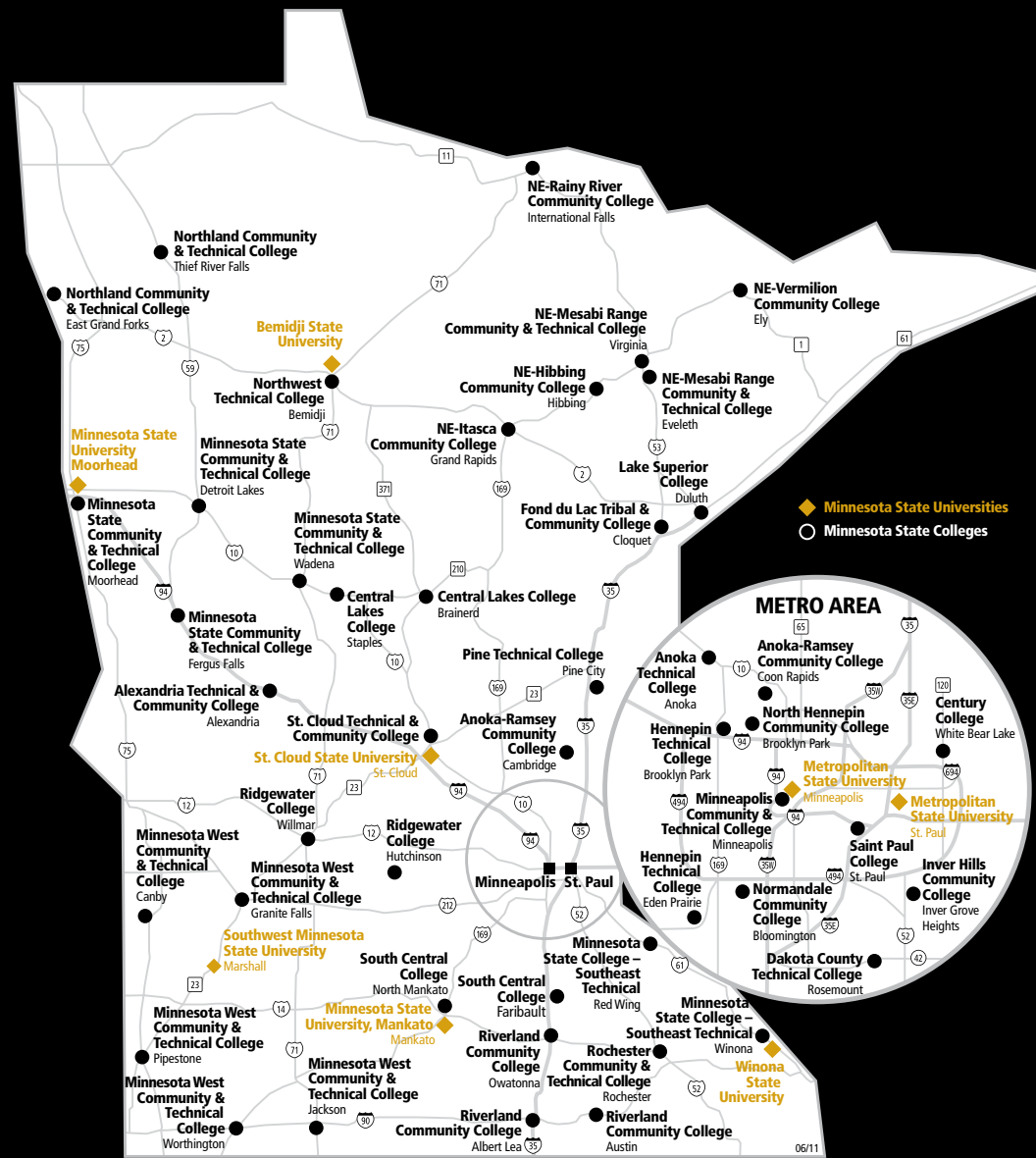


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Ask a high school counselor or career center for a copy of Go Places, a free guide to the Minnesota State Colleges and Universities. Then contact a campus directly or find out more online at [www.mnscu.edu](http://www.mnscu.edu).



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# PATHWAYS TO SUCCESS

HELPING YOUR MINNESOTA TEEN WITH COLLEGE AND CAREER DECISIONS



Are You  
**Prepared**  
to Guide  
Your Teen?

Version 1.5/August 2011

## Let's Get Ready to Help Your Teen with Career Decisions

Right now, your teen is getting a lot of messages at school and in the media about what to do after high school – go to a two-year college, attend a university, find a job in this field, work for that company, and many others. Your support helps your teen make sense of all this information and make choices that best fit his or her goals and personality.

It's time for your teen to look at all of these education and career options. Ignoring career exploration today can limit future options. You can help your teen understand how high school education impacts college and other training options.

When you play a role in your teen's career exploration, you are helping to increase your teen's chances of future job satisfaction and financial independence.

### Changing Economy, Changing Expectations

Minnesota's job market is not the same as it was 10 or 20 years ago. The global economy has played a big role in altering employers' expectations for employees. These expectations change the way today's job seekers prepare for their careers.

Below are some economic realities that your teen will face in today's economy. These may be very different from what you experienced:

### More Education & Training Needed

Most jobs require some type of additional training or education after high school. Jobs that only require a high school diploma often don't lead to advanced positions and don't pay well.

### Emphasis on Skills

During layoffs, employers do not always keep employees who have worked the longest. Employers often value specialized skills and abilities more than longevity.

### Flexibility is Key

In order to move up in most careers, people must be flexible and willing to learn changing technology and new business practices.

### Individual Career Management

It's common for people to change companies or switch careers several times in a lifetime. Individuals must keep track of their own career and retirement plans.



# PATHWAYS TO SUCCESS

You have a lot at stake in the career success of your children, because they may turn to you for help if they have a hard time getting started in a career. School counselors can't do it all because they have many students to help, and they are not experts on your teen. Young people can't do it all by themselves either, since their experience in the world of work is limited.

The *Pathways to Success* parent guide can help you take an active role in helping your teen explore the worlds of education and work, the career development process and today's labor market.

### PUBLICATION INFORMATION

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## What Do Employers Want?

When you think about employment skills, you probably think about skills specific to one job. But there are core sets of skills that employers in all fields have found necessary to succeed in the workforce. These core skills are transferable, and used in all different types of jobs. Doing well in college and technical training programs also require these skills.

These core skills and knowledge are split into two groups: technical skills and soft skills. Technical skills usually require training to learn and are specific to certain types of jobs, like knowing how to use a jackhammer or understanding a complicated computer program.

Soft skills are the attitudes, personality traits and social graces that all employers value. These skills help an employee get along with others and adjust to the business world.

A few core soft skills are:

- Communications
- Teamwork
- Problem Solving
- Ethics
- Critical Thinking
- Legal Responsibilities

A complete list of foundation knowledge and skill sets can be found in the center of the Career Fields graphic on pages 12-13.

### High School Connection

How does your teen gain the skills and knowledge needed on the job and at college? High school classroom and extracurricular activities teach foundational knowledge and skills. Work-based learning activities, such as internships, mentoring and job shadowing also increase these skills.

Everyone — not just college-bound students — should choose their high school classes carefully in order to gain the skills they'll need for success in the workplace.

The table below lists the minimum number of high school courses recommended to be college and work ready.

Subject	Years* (Recommended)	Why is It Important?
Language Arts	4	Helps develop writing and verbal skills needed for all jobs and everyday life.
Math	4	Develops skills used in everyday life and problem-solving abilities.
Social Science	3	Increases awareness of world events, economics and societal issues.
World Language	2	Increases awareness of other cultures and ability to work in global marketplace.
Arts	1	Promotes creative thinking and develops diverse interests.

\*Source: Minnesota Office of Higher Education, [www.getreadyforcollege.org/preparing](http://www.getreadyforcollege.org/preparing)

## Is My Teen Ready for the Real World?

Is your teen on track to develop the skills needed to succeed in college or a career? Pay attention to grades and school attendance. Employers and college admission representatives look at high school attendance and grades as a sign of how well students will do in college classes or on the job.

**College/career plan at school.** Ask your teen's teachers or counselors what classroom activities your teen is involved in related to college and career exploration. How structured are the high school's career planning?

**Hobbies and extracurricular activities.** What classes, clubs or afterschool activities is your teen most interested in? Which technical or soft skills do those activities develop? Are any of these activities related to career interests?

**Attitude.** People with a positive self-image are more likely to make and achieve their goals. Does your teen have a positive view of self and of the future? The best thing you can do to improve your teen's outlook is to be a positive role model.

### Assessment Information

All Minnesota high schools use standardized tests to follow student improvement. These tests are one way to measure your teen's level of knowledge in subject areas important to employers and colleges.

Seeing how your teen's knowledge matches potential jobs is important. But knowing which jobs match your teen's personality is also valuable.

The interest assessment on the next page is based on Holland's Interest Inventory. Take the assessment with your teen and talk about which careers fit your teen's interests.

If you already know your teen's Holland Interest Profile, you can jump to page 5 to match their interest code to career clusters.

This interest assessment is just one of many. See page 19 for other assessments and career exploration options.

People with a positive self image are more likely to make and achieve their goals. Does your teen have a positive view of self and of the future?



## Holland Code Interest Assessment

Read each statement below. If you agree, fill in the corresponding circle.

...do puzzles		<input type="radio"/>				
...work on cars	<input type="radio"/>					
...attend concerts, theaters or art exhibits			<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 fiction, poetry or plays			<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 things like 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 chart		<input type="radio"/>				
...have discussions about issues like politics or current events				<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>My Interest Profile (top three letters with the highest scores):</b>	<b>R</b>	<b>I</b>	<b>A</b>	<b>S</b>	<b>E</b>	<b>C</b>

## Which Careers Match My Interests?

Use this list to explore the career clusters with occupations that match your three-letter interest profile. Information about each career cluster and the occupations in them can be found on ISEEK ([www.ISEEK.org](http://www.ISEEK.org)).

### R • REALISTIC

- Agriculture
- Architecture & Construction
- Arts & Communications
- Health Science
- Hospitality & Tourism
- Information Technology
- Law & Public Safety
- Manufacturing
- Science, Technology, Engineering & Math
- Transportation

### I • INVESTIGATIVE

- Health Science
- Information Technology
- Science, Technology, Engineering & Math

### A • ARTISTIC

- Arts & Communications
- Education & Training

### S • SOCIAL

- Education & Training
- Government
- Health Science
- Human Service
- Law & Public Safety
- Marketing & Sales

### E • ENTERPRISING

- Arts & Communications
- Business & Management
- Finance
- Government
- Hospitality & Tourism
- Law & Public Safety
- Marketing & Sales

### C • CONVENTIONAL

- Architecture & Construction
- Business & Management
- Finance
- Health Science
- Manufacturing
- Marketing & Sales
- Transportation



## What Does this Interest Profile Say About Me?

**Realistic people** are DOERS. 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 people** are THINKERS. They like to watch, learn and analyze problems. They often like to work independently, tend to be good at math and science, and enjoy analyzing data.

**Artistic people** are CREATORS. They like to work in unstructured situations where they can use their creativity and come up with new ideas. They often enjoy performing and visual arts.

**Social people** are HELPERS. They like to work directly with people rather than things. They enjoy training, instructing, counseling or curing others.

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

**Conventional people** are ORGANIZERS. They are very detail oriented and like to work with data. They have good organizational and numerical abilities and are good at following instructions.

## Why Pay Attention to High-Demand Jobs?

There are many catchy titles used to describe the “hot jobs” that career explorers should check out. What makes an occupation or industry “hot” or high demand? How can high-demand careers help my teen find a job?

In a changing economy, career explorers need to know in which career paths will need many employees within the next 10 years.

Employers, with the help of the Minnesota Department of Employment and Economic Development, look at technology, economic and other trends to give the label “high demand” to:

- Industries projected to have a lot of job openings in 10 years (2009-2019).
- Career paths that have job duties or use skills that are needed to help Minnesota’s economy stay strong.

- Career paths which are more likely than others to offer good pay, steady employment and have opportunities for advancement.

### Preparing for High-Demand Jobs

If your teen decided to pursue a high-demand career, check with your high school to find out if they have a program of study that matches your teen’s goals.

A program of study is a seamless sequence of courses curriculum that helps learners prepare for a career of their choice. Your teen can start taking classes in high school and would continue to take college courses in that or a related program of study. Each program teaches skills and knowledge employers expect job seekers in that career pathway to have.

See page 11 for more information about programs of study.



**Hot** jobs.

**Fastest-growing** careers.

**High-demand** occupations.

## Career Ladders

Career ladders help people learn about job options available within a career pathway. Many career ladders, like the two examples below, show upward movement between positions. Many careers progress horizontally as well as vertically, with more than one

option available for each career move. The examples shown are just two possible career pathways someone might experience in a manufacturing or health care career after obtaining the education and work experience needed in Minnesota.

SAMPLE OF MANUFACTURING CAREER LADDER

OCCUPATION TITLE	TRAINING/EDUCATION REQUIREMENTS	LOW/MEDIAN WAGES
<b>Tool &amp; Die Makers</b> Produce devices that equip machines to make products, from clothing and furniture to heavy equipment and parts for cars.	<b>Apprenticeship</b> Most complete an apprenticeship lasting 3-4 years.	\$16.30/\$22.80
<b>Electro-Mechanical Technicians</b> Operate, test, and maintain unmanned, automated, servo-mechanical, or electromechanical equipment. May assist engineers in testing and designing robotics equipment.	<b>2 Years</b> Most have an associate’s degree or complete formal employer training.	\$16.90/\$24.00
<b>Mechanical Engineers</b> Plan or design tools, engines, machines or other equipment. Might oversee installation, operation or repair.	<b>Bachelor’s Degree</b> Most have degree in mechanical engineering. License required.	\$24.60/\$35.20
<b>Engineering Managers</b> Plan, direct, or coordinate activities in such fields as architecture and engineering or research and development in these fields.	<b>Master’s Degree</b> Many have a master’s degree plus related work experience.	\$39.40 / \$56.00

SAMPLE OF NURSING CAREER LADDER

OCCUPATION TITLE	TRAINING/EDUCATION REQUIREMENTS	LOW/MEDIAN WAGES
<b>Nursing Assistants</b> Work under medical or nursing staff to care for patients. Might feed patients or perform other duties. Includes Aides and Orderlies.	<b>Less Than 1 Year</b> Most receive 75-80 hours of supervised training. Exam and state registration.	\$10.10/\$12.80
<b>Licensed Practical Nurses</b> Care for patients in hospitals, clinics, nursing and private homes. Might work under supervision of a registered nurse.	<b>1-2 Years</b> Most receive formal training lasting 1-2 years. License required.	\$14.80/\$19.00
<b>Registered Nurse</b> Assess patient health and care for ill or injured patients. Might advise patients on care management.	<b>2-4 Years</b> Most have associate or bachelor’s degree. License required.	\$24.20/\$34.90
<b>Advance Practice Nurses</b> Registered nurses with advanced training to perform highly autonomous and specialized roles. Includes Nurse Practitioners and Certified Nurse Midwives.	<b>Master’s Degree</b> Most have graduate certificate, master’s or doctorate degrees.	National Average: \$39.10

Source: Minnesota Department of Employment and Economic Development, 4th quarter 2010

# High-Demand Occupations in Minnesota

The occupations listed below are a sample of the many careers expected to add the most positions in Minnesota from the years 2009-2019. To see wage data and details for more occupations, go to ISEEK.org.

CAREER CLUSTER	CAREER PATHWAY	OCCUPATION TITLE	LOW WAGE	MEDIUM WAGE	TRAINING/EDUCATION REQUIREMENTS
<b>Agriculture, Food &amp; Natural Resources</b>	Animal Systems	Veterinary Technologists & Technicians	\$11.80	\$15.50	Associate Degree
	Environmental Service Systems	Environmental Science & Protection Technicians	\$13.80	\$20.00	Associate Degree
	Food Products and Processing Systems	Food Scientists & Technologists	\$24.20	\$34.40	Bachelor's Degree
<b>Architecture &amp; Construction</b>	Maintenance/Operations	Building Maintenance Worker	\$12.70	\$18.70	1-2 Years Vocational Training
	Design/Pre-construction	Civil Engineering Technician	\$18.40	\$26.50	Associate Degree
	Design/Pre-construction	Architects	\$18.90	\$36.30	Bachelor's Degree
<b>Manufacturing</b>	Manufacturing Production Process Development	Industrial Engineering Technicians	\$16.20	\$22.80	Associate Degree
	Maintenance, Installation & Repair	Mechanic, Installer and Repairer Supervisors	\$18.80	\$28.70	Related Work Experience
	Health, Safety & Environmental Management	Occupational Health and Safety Specialists	\$21.40	\$31.40	Bachelor's Degree
<b>Transportation, Distribution &amp; Logistics</b>	Sales & Service	Cargo and Freight Agents	\$14.10	\$20.40	Moderate On-The-Job Training
	Warehousing & Distribution Center Operations	Transportation & Material-Moving Machine Operator Supervisors	\$13.60	\$24.20	Related Work Experience
	Facility & Mobile Equipment Maintenance	Mobile Heavy Equipment Mechanics	\$17.60	\$24.90	1-2 Years Vocational Training
<b>Information Technology</b>	Information Support & Services	Computer Support Specialists	\$15.30	\$22.40	Associate Degree
	Programming & Software Development	Computer Programmers	\$20.30	\$32.50	Bachelor's Degree
	Network Systems	Network Systems & Data Communications Analysts	\$26.70	\$40.50	Bachelor's Degree
<b>Marketing, Sales &amp; Service</b>	Buying & Merchandising	Customer Service Representatives	\$11.40	\$16.70	Moderate On-The-Job Training
	Marketing Information Management & Research	Market Research Analysts	\$22.00	\$34.80	Bachelor's Degree
	Professional Sales & Marketing	Wholesale & Manufacturing Sales Representatives	\$16.40	\$29.10	Long-Term On-the-Job Training
<b>Finance</b>	Insurance Services	Claims Adjusters, Examiners & Investigators	\$15.30	\$24.30	Long-Term On-the-Job Training
	Financial & Investment Planning	Personal Financial Advisors	\$17.40	\$26.60	Bachelor's Degree
	Financial & Investment Planning	Financial Analysts	\$22.40	\$34.40	Bachelor's Degree
<b>Hospitality &amp; Tourism</b>	Restaurants, Food & Beverage Services	Food Service Managers	\$13.80	\$20.20	1-2 Years Vocational Training
	Travel & Tourism	Interpreters & Translators	14.00	\$21.30	Associate Degree
	Travel & Tourism	Meeting & Convention Planners	\$14.20	\$21.50	Bachelor's Degree

Source: Minnesota Department of Employment and Economic Development (www.positivelyminnesota.com). The reliability for individual occupations is subject to error due to assumptions of the trend analysis method. Many unknown factors can and will affect the economy and employment levels of the 10-year projections period.

CAREER CLUSTER	CAREER PATHWAY	OCCUPATION TITLE	LOW WAGE	MEDIUM WAGE	TRAINING/EDUCATION REQUIREMENTS
<b>Business, Management &amp; Administration</b>	Business Financial Management & Accounting	Accountants & Auditors	\$24.20	\$28.50	Bachelor's Degree
	Administrative & Information Support	Office and Administrative Support Supervisors	\$14.40	\$23.20	Related Work Experience
	Marketing	Marketing Managers	\$37.40	\$56.30	Bachelor's Degree Plus Work Experience
<b>Health Science</b>	Therapeutic Services	Respiratory Therapist	\$22.73	\$29.30	Associate Degree
	Diagnostics Services	Medical & Clinical Laboratory Technologists	\$22.80	\$28.80	Bachelor's Degree
	Support Services	Registered Nurses	\$24.20	\$34.90	Associate Degree
<b>Human Services</b>	Personal Care Services	Funeral Directors	\$20.90	\$30.70	Associate Degree
	Family & Community Services	Social & Community Service Managers	\$20.40	\$30.40	Bachelor's Degree
	Counseling & Mental Health Services	Substance Abuse & Behavioral Disorder Counselors	\$15.00	\$21.20	Master's Degree
<b>Arts, A/V Technology &amp; Communications</b>	Printing Technology	Desktop Publishers	\$10.50	\$18.50	1-2 Years Vocational Training
	Visual Arts	Multi-Media Artists & Animators	\$15.70	\$24.50	Bachelor's Degree
	Journalism & Broadcasting	Public Relations Specialists	\$18.30	\$26.70	Bachelor's Degree
<b>Law, Public Safety &amp; Security</b>	Legal Services	Paralegals & Legal Assistants	\$14.40	\$23.20	Associate Degree
	Emergency & Fire Management Services	Emergency Management Specialists	\$19.10	\$27.30	1-2 Years Vocational Training
	Correction Services	Probation Officers & Correctional Treatment Specialists	\$19.40	\$30.70	Bachelor's Degree
<b>Science, Technology, Engineering &amp; Mathematics</b>	Science & Math	Agricultural & Food Science Technicians	\$12.70	\$17.20	Associate Degree
	Engineering & Technology	Architectural & Civil Drafters	\$14.90	\$23.90	1-2 Years Vocational Training
	Engineering & Technology	Technical Writers	\$19.50	\$31.00	Bachelor's Degree
<b>Education &amp; Training</b>	Teaching/Training	Preschool & Child Care Education Administrators	\$15.40	\$19.70	Bachelor's Degree Plus Work Experience
	Administration & Administrative Support	Adult Literacy, Remedial Education & GED Instructors	\$12.60	\$21.80	Bachelor's Degree
	Teaching/Training	Vocational Education Teachers, Postsecondary	\$17.10	\$29.40	Master's Degree
<b>Government &amp; Public Administration</b>	Public Management & Administration	Government Programs Eligibility Interviewers	\$16.10	\$21.70	Moderate On-The-Job Training
	Revenue and Taxation	Appraisers & Assessors of Real Estate	\$16.50	\$25.30	1-2 Years Vocational Training
	Planning	Urban & Regional Planners	\$22.60	\$30.60	Master's Degree

## Why Are Career Clusters and Career Pathways Important?

It is not easy to prepare students for tomorrow's jobs. Technological advances and global competition mean that students must be ready to continually update their knowledge and skills to compete.

Counselors and teachers are using the career clusters and pathways framework to help students understand the connections between what they learn in school and their future career. Career pathways provide this connection by highlighting the path from high school to college and careers.

Careers with common features are in the same cluster. Career pathways are smaller, more specific groups of occupations within a cluster. All 16 clusters and 40 pathways are explained on page 11 and shown on pages 12-13.

The Career clusters and pathways are part of a framework adopted by the Minnesota Department of Education, the Minnesota State Colleges and Universities system, and many employers. The framework helps teen and adult learners connect education to the skills needed in the workplace. This framework is used in MnCareers, on ISEEK, in the Minnesota Career Information System, and in many other career exploration tools. See page 19 for more information about these tools.

Students and job seekers at all levels can use the framework to plan for future education and required knowledge. Younger students can concentrate on the general skills needed in all career clusters (see page 2), while older students and job seekers ready to enter college or the workforce can train in the technical skills and career knowledge needed for pathways within a specific career cluster.

### Career Clusters & Pathways in High Schools

Exploring careers through career pathways is helpful whether you are planning to go to college or are headed straight to the workplace. Understanding what employers expect for each career cluster and pathway helps you know what skills and experience you'll need before applying for jobs.

Knowing about pathways can also help when choosing a college that has programs of study matching your interests. Many high schools in Minnesota are partnering with local employers and state colleges to design at least one program of study.

For more information about the career cluster and pathways framework, go to [www.ISEEK.org](http://www.ISEEK.org) or [www.careerclusters.org/16clusters.cfm](http://www.careerclusters.org/16clusters.cfm).



Knowing about Pathways can also help when choosing a college that has Programs of Study matching your interests. Many high schools in Minnesota are partnering with local employers and colleges to design at least one Program of Study.

## Career Cluster Graphic Summary

The six career fields are the broadest grouping of careers. The Career fields are subdivided into the 16 career clusters and 79 pathways.

### Career Fields

Looking at the circular graphic on page 12-13, the six career fields are shown in the inner ring surrounding the foundational knowledge and skills in the center. Exploring the six career fields is a good place to begin researching career options. Students normally explore career fields in middle school and early high school, and then narrow their research to one or two career clusters within a career field.

### Career Clusters

On page 12-13, the names of the 16 career clusters are in bold with a square bullet (■). Clusters are groupings of occupations and industries based on common knowledge and skills. A student or job seeker can research the transferable skills and industry trends affecting a whole cluster, or narrow their research to a pathway or specific occupation.

### Career Pathways

Career pathways are identified by the symbol (●) under each cluster heading on the circular graphic. Pathways are a more specific group of occupations within a career cluster. Employers have said that each of these pathways has a specific skill set. Many of these pathways match programs of study offered at Minnesota technical and community colleges.

### Programs of Study

A program of study is a curriculum that helps learners prepare for a career pathway. Programs of study are seamless sequential curricula based on academic and industry skill standards. Students can begin a program of study in high school by learning core skills needed in any career. They progress into more technical classes, and then move on to college to continue to learn the knowledge, skills and abilities needed for a specific career pathway.

# MINNESOTA CAREER FIELDS, CLUSTERS AND PATHWAYS

## ■ Marketing

- Merchandising
- Marketing Management
- Marketing Communications
- Marketing Research
- Professional Sales

## ■ Business, Management, and Administration

- Administrative Support
- Operations Management
- Business Information Management
- Human Resources Management
- General Management

## ■ Hospitality and Tourism

- Lodging
- Recreation, Amusements and Attractions
- Restaurants and Food/Beverage Services
- Travel and Tourism

## ■ Law, Public Safety, Corrections, and Security

- Correction Services
- Emergency and Fire Management Services
- Law Enforcement Services
- Legal Services
- Security and Protective Services

## ■ Government and Public Administration

- Revenue and Taxation
- Foreign Service
- Governance
- National Security
- Planning
- Public Management and Administration
- Regulation

## ■ Finance

- Banking Services
- Business Finance
- Securities and Investment
- Accounting
- Insurance

## ■ Human Services

- Consumer Services
- Counseling and Mental Health Services
- Early Childhood Development and Services
- Family and Community Services
- Personal Care Services

## ■ Education and Training

- Administration and Administrative Support
- Professional Support Services
- Teaching/Training

## ■ Agriculture, Food, and Natural Resources

- Animal Systems
- Agribusiness Systems
- Environmental Service Systems
- Food Products and Processing Systems
- Natural Resources Systems
- Plant Systems
- Power, Structural, and Technical Systems

## ■ Arts, Audio/Video Technology, and Communications

- Audio/Video Technology and Film
- Journalism and Broadcasting
- Performing Arts
- Printing Technology
- Telecommunications
- Visual Arts

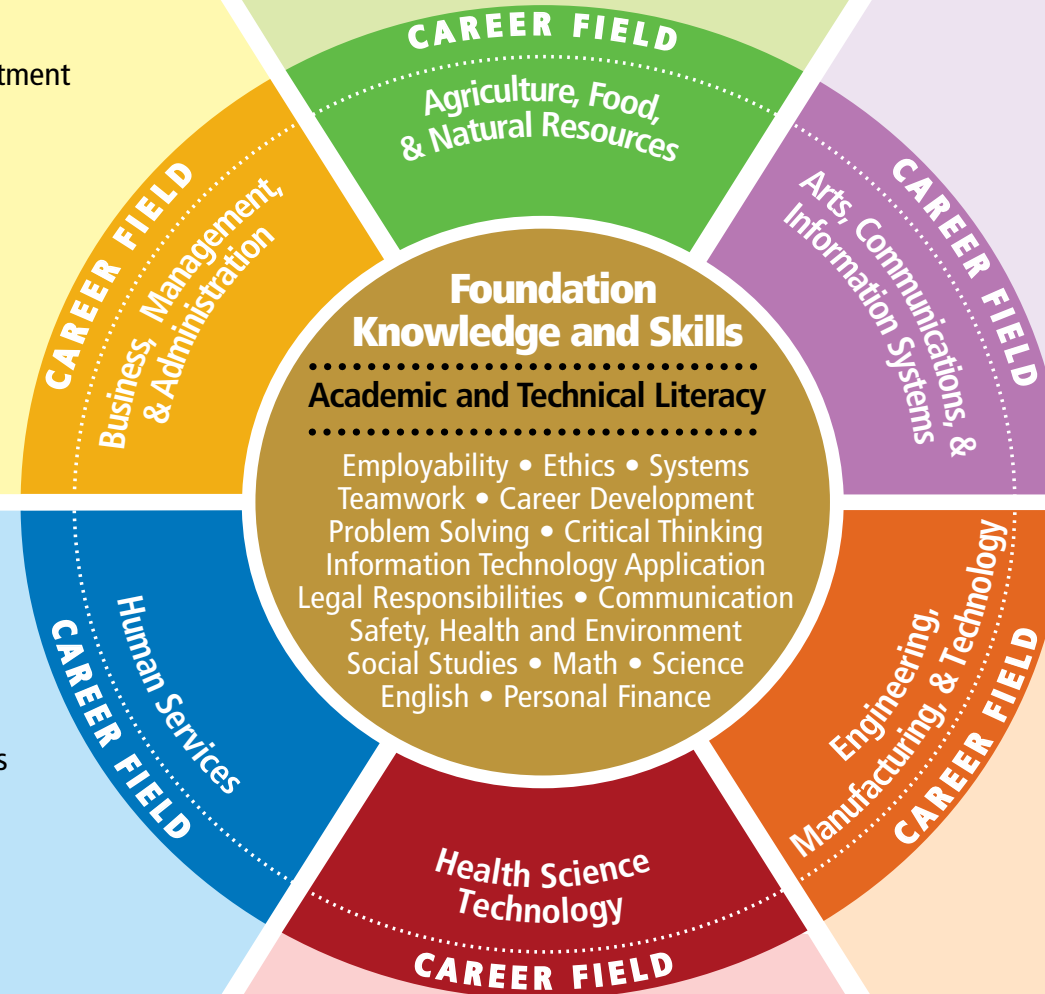
## ■ Information Technology

- Information Support and Services
- Network Systems
- Programming and Software Development
- Web and Digital Communications



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## ■ Transportation, Distribution, and Logistics

- Facility and Mobile Equipment Maintenance
- Health, Safety, and Environmental Management
- Logistics Planning and Management Services
- Sales and Services
- Transportation Operations
- Transportation Systems/Infrastructure Planning, Management, and Regulation
- Warehousing and Distribution Center Operations

## ■ Architecture and Construction

- Construction
- Design/Pre-construction
- Maintenance/Operations

## ■ Manufacturing

- Production
- Manufacturing Production
- Process Development
- Maintenance, Installation, and Repair
- Quality Assurance
- Logistics and Inventory Control
- Health, Safety, and Environmental Assurance

## ■ Science, Technology, Engineering, and Mathematics

- Engineering and Technology
- Science and Mathematics

### Additional Resources

[www.cte.mnscu.edu/programs/index.html](http://www.cte.mnscu.edu/programs/index.html)  
[www.mnpos.com](http://www.mnpos.com)

### Legend:

■ = Career Cluster  
 • = Career Pathway

Explanation provided on reverse side.

## What's a Parent to Do?

### Frequently Asked Questions about College and Careers

**My daughter has no plans for after high school. How can I get her to think about her future?**

Instead of insisting that your daughter makes college plans or choose a career, ask her what her goals are for her life. What type of life does she want in five years? Fifteen years? Realizing that the decisions she makes now impact her future options might motivate her to take responsibility for her future.

Start talking to your daughter about some of the career options that match her interests, income and lifestyle goals. Next, make college or other training plans that match those career goals. Keep in mind that her academic performance in high school affects her college and training options.

Lots of people dream of becoming a pro-sports player, a TV star, a critically acclaimed artist, or finding fame and fortune with some other notable career. While succeeding at a "dream job" is possible, the reality is that it's highly unlikely. Think about all the high school sports stars playing today. How many of them will make a living as a professional athlete? Even if your son does play for the college team, he should make plans for the next 20 years, not just the next four. Ask him about his favorite subjects in school or his other hobbies. There are probably other career options that match his interests. Look into non-athletic scholarships for various academic, career, ethnic and other criteria. Help your son to choose a college that has the academic programs he wants, not just the athletic programs he dreams about.

**My son is a great football player. He plans to play for a college team and hopefully get drafted by the NFL. Should I be talking to him about other career options, or just hope that he gets recruited and gets a college scholarship?**

Your son might have heard good things about a certain college or university, but that doesn't necessarily mean that school will be a good fit for him. Help him to figure out what he wants out of his college experience, and seek out colleges that match his choices.

All students should think about both academic and social factors when choosing a college. These can include diversity, location, financial aid options, sports and extracurricular activities, job placement and counseling services.

**My son has his heart set on going to Sample University, but he hasn't given much thought to what he wants to study or what type of career he wants. Is that OK?**

**My daughter wants to be a welder and work in construction like her father. How do I get her to look at more appropriate jobs for girls?**

In today's economy, there is no such thing as "women's work" or jobs that only a man can do. This belief has caused many women to take lower-status or lower-paying jobs than men, and has led to many men entering into careers that didn't match their interests and goals. Men and women, including your daughter, are more satisfied with their job when they choose a career they want, not the job that they think they should have based on cultural or gender stereotypes.

Going to college is an investment in your teen's future. The cost of attendance—including tuition, fees or other expenses—varies by type of school. It's true that college costs are increasing, but it's usually not as high as people think. For most Minnesotans, higher education continues to be affordable. You can view current Minnesota tuitions at [www.GetReadyForCollege.org/tuition](http://www.GetReadyForCollege.org/tuition).

Most students also receive some type of financial aid. This may be a combination of grants and scholarships, loans and work study. The Minnesota Office of Higher Education has a lot more information about financial aid at: [www.GetReadyForCollege.org/paying](http://www.GetReadyForCollege.org/paying).

**I want my son to go to college, but I just can't afford the tuition. What are our options?**

**My daughter graduated with an associate degree last year but most of the jobs she is applying for require a bachelor's. Does she have to go back for another four years of college?**

No. Your daughter is probably more than half of the way toward earning a bachelor's degree. Completing a bachelor's program after earning an associate degree is common. You and your daughter should meet with the admissions department of the school she will be attending to find out if she will get credit for the classes that she's already taken. Also ask if her previous work experience can be credited toward her bachelor's degree.

## Parents Helping With Career Plans

### Recognize your own feelings and assumptions about career exploration.

Both you and your teen get information and opinions about career paths from family, friends and the media. Your opinions about education and work have the most influence on your teen. Be aware of the positive and negative messages you send about college, job training and specific career paths, including your own.

### Talk about your work.

Your teen probably doesn't know a lot about your education background or work history. Even if you've discussed it, he or she might not really understand how your decisions and achievements over the years have led to your current position. Discuss how the classes you took in high school helped build the skills and knowledge you use on the job. Talk about how each job you had led to the next one. Be honest about your mistakes. Share how decisions or negative activities might have impacted or limited your career options.

### Emphasize the connection between education and careers.

Your teen's attitude about school can affect feelings about career exploration. Talk about how you do your best at your job every day and don't get a day off just because you feel like it. The same goes for high school attendance and performance. Talk about how the classes he takes and his grades affect his college and career options. Regardless of your own background, help your teen to achieve the education needed for his career success.

### Help your child to develop work skills and values.

Teens might believe that there is only one job for them. If that doesn't work out, they might feel they have failed. Many different careers require similar tasks and skills. Once your teen has identified how his interest and abilities fit within one cluster, there will be many occupations to explore.

### Encourage your child to explore career clusters before choosing one pathway.

Teens might believe that there is only one job for them. If that doesn't work out, they might feel they have failed. Many different careers require similar tasks and skills. Once your teen has identified how his interest and abilities fit within one cluster, there will be many occupations to explore.



### Understand that career exploration is not a one-time decision.

Statistics show that people change jobs approximately 10 times between ages 18 to 36. Even with a defined career goal, your teen will continue to reevaluate choices and make adjustments. Remember that changing career goals and discovering new options is part of the process. The goal is not for your teen to find one job at one company, but to find a career path and sets of skills that can be developed over a lifetime. See page 18 for the steps involved in the career exploration process.

### Help your teen to “test drive” different careers.

Work-based learning and other activities allow a teen to explore a career before committing. Internships, volunteer positions, job shadowing and work-site visits can give any job seeker a realistic look at a career. Also, encourage your teen to get first-hand knowledge by talking to people in different positions. These connections can be made through informational interviews, mentoring or joining industry organizations.

### Encourage your teen to learn new skills.

Your high school probably offers classes that let your teen learn and apply technical skills, like keyboarding, automotive technology, accounting, graphic design, computer programming, marketing, agronomy or others. These classes increase college readiness and are impressive to employers.

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### Be persistent, but not pushy.

Constantly questioning your teen about career plans might make your teen think negatively about the whole career exploration process. Instead, gently ask about likes and dislikes. The discussion can then lead into how your teen's interests or goals fit into future plans.

### Realize that not every career starts with a four-year degree.

No amount of education or type of degree can guarantee a successful career. However, most employers expect job seekers to have some postsecondary education or formal job training. Community and technical colleges have certificate and degree-awarding programs that prepare job seekers for career paths with good-paying occupations. Find out what type of degree or training is required for the pathways your teen is interested in.

### Come up with Plan B.

No matter how much thought someone puts into choosing a career, things often don't go exactly as planned. Changes in the economy, family issues, company restructuring, industry changes and other factors outside of a job seeker's control can have a major impact on a person's career goals. Helping your teen realize that “life happens” will encourage preparation for overcoming obstacles in the future.

### Be patient, and be ready.

Some people naturally start thinking about career exploration as young children. Some don't think about careers until their teens. And some adults still struggle to find the right career path. If your teen is not ready to make college or career decisions, be patient. Help your teen identify life goals. The desire to reach those goals will fuel their career exploration. When your teen is ready to talk about careers, be prepared to help research colleges and careers. Career exploration resources are listed on page 19.

A large bank account is not the only measure of success. Success can be defined by a feeling of purpose, strong ties to family and friends, financial independence, social standing and other ways.

## Steps to Choosing a Career Path

Choosing a career and developing the skills needed to succeed in that path is a process, not a one-time decision. This process outlined below shows how a job seeker moves from career exploration to employment.

### CAREER ASSESSMENT

#### Identify career and education preferences

- Assessments can measure skills, values, interests, aptitudes or personality
- Can be done by observation, interviews, record review, testing and performance reviews

### EXPOSURE TO CAREER OPPORTUNITIES

#### Explore and research careers to gather information about education, training and entry requirements, income and benefits potential, and work environment

- Business Tours
- Career Camps
- Career Exploration Classes
- Career Information Tools
- College Tours
- Informational Interviews
- Job Shadowing
- Labor Market Information
- Mentoring
- Professional and Student Organizations
- Service Learning
- Short-term Jobs
- Volunteering

### CAREER PLAN

#### Create an individualized or six-year plan that include short- and long-term career and education goals

### GAIN WORK-RELATED SKILLS

#### Develop soft skills and technical skills (see page 2)

- Apprenticeship
- Career and Technical Education
- Internships and Volunteer Work
- Military
- On-the-job Training
- Postsecondary Education
- Short-term Training
- Work-readiness Workshops

### JOB SEARCH

#### Find employment within a chosen career path

- Find job search resources and assistance, including networking
- Research specific job openings and companies
- Develop resumes, cover letters and reference lists
- Practice interviewing and salary negotiation

### CAREER MANAGEMENT

#### Revisit previous steps as needed while working within in a career path

- Deal with Transitions and Job Loss
- Develop Work-life Balance and Sense of Purpose
- Networking
- Professional Associations
- Re-assess Plans and Goals
- Retraining and Lifelong Learning

## College & Career Exploration Resources

**CTE: Learning that works for Minnesota** Career technical education programs at Minnesota State Colleges & Universities combines what students learn in school and prepares them for work. These programs fit any student, youth or adult, who want additional training or to further your education.  
<http://www.learningthatworks.org>

**Minnesota Programs of Study Planning Tool** This planning tool will help students understand what courses they can take in high school that will prepare them for their education and career choice. It is used by some high school counselors to help students think about the types of skills needed to enter college or a career. Students and parents can also use the same tool. Just click on the name of your high school and start exploring.  
<http://mnpos.com>

**Get Ready for College** The Minnesota Office of Higher Education provides information for parents, high school and adult students about preparing and paying for college.  
[www.getreadyforcollege.org](http://www.getreadyforcollege.org)

**Minnesota Online** Find resources for planning, managing and achieving your online education goals. Choose from thousands of online courses and hundreds of graduate, bachelor and associate online degrees, certificates and online diploma programs.  
[www.minnesotaonline.org](http://www.minnesotaonline.org)

**MnCareers Parent Guide** This free downloadable PDF can help parents take an active role in their teen's career exploration, career development process, and help them understand the realities of today's labor market.  
[www.iseek.org/parents/mncareersparents.html](http://www.iseek.org/parents/mncareersparents.html)

**ISEEK** This comprehensive website helps Minnesota students, job seekers, career changers, parents, counselors, immigrants and veterans with job searching, discover emerging and high-demand occupations, or locate education and training.  
[www.iseek.org](http://www.iseek.org)

**Minnesota Career Information System (MCIS)** The Minnesota Department of Education offers several useful tools and publications on careers and training with Minnesota-specific information and national data. Check with your high school counselor to see if this tool is available.  
<http://mncis.intocareers.org>

**CareerOneStop for Students** Students, parents, and career advisors can explore career and education options. Students can identify their interests, explore careers, get work experience and find education options.  
<http://www.careeronestop.org/StudentsandCareerAdvisors/StudentsandCareerAdvisors.aspx>

**Minnesota WorkForce Centers** Each center across the state has a resource area with computers and resources for job search activities, and provides free tools, resources and services needed for job search and career planning. To locate a WorkForce Center near you, call 1.888.GET JOBS (1.888.438.5627) or visit [www.mnwfcc.org/field/](http://www.mnwfcc.org/field/).

**My Next Move** This interactive tool from the U.S. Department of Labor offers personalized career suggestions based on a student or job seeker's interests and level of work experience. The site has tasks, skills, salary information, and more for over 900 different careers.  
[www.mynextmove.org](http://www.mynextmove.org)

#### Other Resources for Families

**Minnesota Parents Know** This Minnesota Department of Education website is filled with convenient and trusted child development, learning, health, and parenting information from birth to the teenage years.  
[www.mnparentsknow.info](http://www.mnparentsknow.info)

**MinnesotaHelp.info** This online directory of services is designed to help people in Minnesota find human services, information and referral, financial assistance, and other forms of help.  
[www.MinnesotaHelp.info](http://www.MinnesotaHelp.info)



# Minnesota State Colleges and Universities Programs

The following is a list of programs categorized by career clusters, which are offered at various campuses. For more details go to [www.mnscu.edu](http://www.mnscu.edu).

	Agriculture, Food and Natural Resource	Architecture and Construction	Arts, Audio/Video Technology and Communications	Business, Management and Administration	Education and Training	Finance	Government and Public Administration	Health Science	Hospitality and Tourism	Human Services	Information Technology	Law, Public Safety, Corrections and Security	Manufacturing	Marketing	Science, Technology, Engineering and Mathematics	Transportation, Distribution and Logistics	
Central	Alexandria TCC	•	•	•	•	•		•	•	•	•	•	•	•		•	
	Anoka-Ramsey, Cambridge	•			•	•		•			•		•	•	•		
	Central Lakes, Brainerd	•		•	•	•		•	•	•	•	•	•		•	•	
	Central Lakes, Staples	•	•	•				•					•		•	•	
	Pine, Pine City				•		•		•		•		•			•	
	St. Cloud State	•	•	•	•	•	•		•	•	•	•		•	•		
	St. Cloud TCC	•	•	•	•	•	•		•	•	•	•	•	•	•		•
Metro Area	Anoka-Ramsey, Coon Rapids	•			•	•		•			•	•	•	•	•		
	Anoka Technical, Anoka	•	•		•	•		•		•		•	•			•	
	Century, White Bear Lake	•	•	•	•	•		•		•	•	•	•	•	•	•	
	Dakota County, Rosemount	•	•	•	•			•	•	•	•	•	•	•		•	
	Hennepin, Brooklyn Park	•	•	•	•			•	•	•	•	•	•			•	
	Hennepin, Eden Prairie	•	•	•	•		•	•	•	•	•	•	•			•	
	Inver Hills, Inver Grove Heights		•		•	•		•		•	•	•	•	•	•		
	Metropolitan State			•	•	•		•	•	•	•	•	•		•		
	Minneapolis		•	•	•	•	•		•	•	•	•	•	•			•
	Normandale, Bloomington	•		•	•	•			•	•	•	•	•	•	•	•	
	North Hennepin, Brooklyn Park		•	•	•	•			•		•	•	•	•	•	•	
	Saint Paul		•	•	•		•		•	•	•	•	•	•	•		•
	Northeast	Fond du Lac, Cloquet	•	•		•	•		•		•	•	•		•	•	
		Lake Superior, Duluth		•	•	•	•		•			•	•	•			•
NE - Hibbing			•	•	•			•	•	•	•	•	•	•	•	•	
NE - Itasca, Grand Rapids		•	•		•	•		•		•		•	•		•		
NE - Mesabi Range, Eveleth			•	•	•			•				•	•			•	
NE - Mesabi Range, Virginia			•		•	•				•							
NE - Rainy River, Int'l Falls			•		•	•		•					•				
NE - Vermilion, Ely		•	•		•	•			•	•		•	•			•	
Northwest	Bemidji State	•		•	•	•		•		•	•	•	•		•		
	Minnesota State Moorhead	•	•	•	•	•		•		•	•	•	•				
	MN State CTC, Detroit Lakes		•		•	•		•		•	•	•	•	•		•	
	MN State CTC, Fergus Falls	•			•	•		•		•	•	•	•		•		
	MN State CTC, Moorhead	•	•	•	•	•		•	•	•	•	•	•	•	•	•	
	MN State CTC, Wadena		•		•			•		•	•	•	•				
	Northland, East Grand Forks	•	•		•	•		•		•	•	•	•	•		•	
	Northland, Thief River Falls	•		•	•	•		•		•	•	•	•	•		•	
	Northwest, Bemidji	•	•		•		•		•		•	•	•	•	•		•
	Minnesota State, Mankato	•	•	•	•	•	•		•		•	•	•	•	•	•	•
Southeast	MSC-SE Technical, Red Wing		•		•	•		•			•	•	•				
	MSC-SE Technical, Winona		•	•	•	•		•		•	•	•	•	•		•	
	Riverland, Albert Lea	•	•	•	•	•		•		•	•	•	•	•		•	
	Riverland, Austin	•	•	•	•	•		•		•	•	•	•	•		•	
	Riverland, Owatonna		•	•	•	•		•		•	•	•	•	•		•	
	Rochester	•	•	•	•	•		•		•	•	•	•	•	•	•	
	South Central, Faribault	•	•		•	•		•		•	•	•	•	•		•	
	South Central, North Mankato	•	•	•	•	•		•	•	•	•	•	•	•	•	•	
Southwest	Winona State	•		•	•	•	•	•	•	•	•	•	•	•	•		
	Minnesota West, Canby	•	•		•	•		•		•	•	•	•			•	
	Minnesota West, Granite Falls	•	•		•	•		•		•	•	•	•			•	
	Minnesota West, Jackson	•	•		•	•		•		•	•	•	•			•	
	Minnesota West, Pipestone	•	•		•	•		•		•	•	•	•			•	
	Minnesota West, Worthington	•			•	•		•		•	•	•	•			•	
	Ridgewater, Hutchinson	•	•	•	•	•		•		•	•	•	•	•	•	•	
	Ridgewater, Willmar	•	•	•	•	•		•		•	•	•	•	•	•	•	
Southwest Minnesota State	•	•	•	•	•	•	•	•	•	•	•	•	•	•		•	