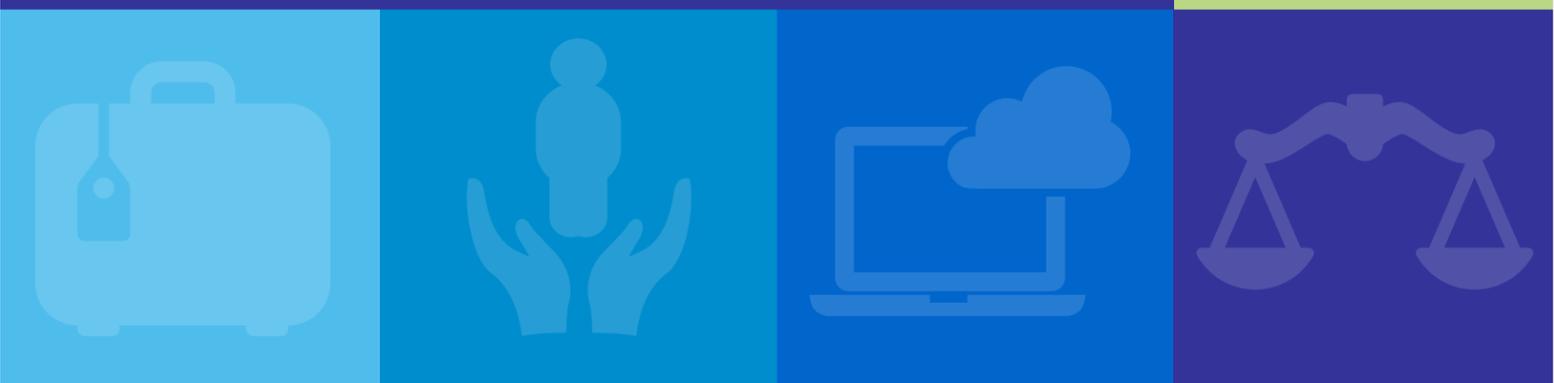




The Wisconsin K-12 Labor Market Information Guide
Focusing on Data for 16 Career Clusters

2018-2028





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A Key Component in Career Planning

Students trying to decide on their future career have a daunting task. How can they narrow career options in a career landscape that is constantly shifting? Labor market information (LMI) can help:

- Connect career interests to jobs that will have future openings
- Keep students from making uninformed decisions that can lead to college debt
- Develop a career ladder that supports the lifestyle they hope for

In Wisconsin, Academic and Career Planning (ACP) provides a process to help students pursue any career area. ACP also offers a platform from which to introduce students to labor market information so that their decisions about career goals are informed and intentional.

This guide is designed to provide educators with a source for LMI that is easy to access and use with students.



A Vital Element in Developing Career Pathways

LMI is also vital to career and technical education (CTE) teachers in developing career pathways. Wisconsin's vision for CTE is to ensure ALL students have access to high quality CTE programs and career pathways.

Wisconsin's Perkins V State Plan clearly defines the five quality elements of a career pathway (see below) to be eligible for Perkins funding. It also requires that labor market information show the pathway is in demand. LMI can inform school districts which career pathways should be developed to address regional and state needs.

Five quality elements of a career pathway include:

1. A progressive sequence of CTE courses aligned to current labor market needs
2. A work-based learning experience
3. Attainment of an industry-recognized credential
4. A related dual-credit college course
5. Related career and technical student organization (CTSO) activities that align with pathway skills

Regional Career Pathways are LMI driven

In 2017, Wisconsin embarked on a pilot project to significantly increase the number of students who participated in career pathways. Regional career pathways (RCPs) were designed to do just that. RCPs lead to jobs that are in demand and have good job opportunities at multiple skill levels. Local school districts in the region can use RCPs as "ready-made" academic and career plans for students who want to pursue high-skill careers that are in demand regionally.

More information and resources about [regional career pathways](#) can be found on the Wisconsin Department of Public Instruction (DPI) website.

This guide includes information about regional career pathways related to several of the career clusters.

A Guide Tailored to Educators

This guide provides an overview of Wisconsin labor market trends across the 16 career clusters (the nationally recognized organizational structure that groups careers with common features). Organizing LMI by career clusters makes it easier to use with students, and informs school districts about career pathway programs that they may be considering. Find additional LMI resources for educators on the DPI's [LMI webpage](#).

Useful Terms and Phrases:

TOP 10 WI OCCUPATIONS WITH MOST PROJECTED JOB OPENINGS (2018-2028)

The term Annual Total Job Openings refers to the projection of jobs that will be available each year through a combination of both newly created jobs and jobs available due to separations. Separations reflect people who are leaving the labor force or moving to a different occupation. Each cluster report highlights the top 10 jobs within the cluster that have the most annual total job openings.

SALARY RANGE

The Salary Range gives students an estimate of earnings in entry level through an experienced high level job for each occupation listed. However, it is important to help students understand that many factors can influence what people are paid in their job. These factors can include, but are not limited to, geographic area, educational attainment, and skill-level. This guide features the 10 occupations for each cluster with the most projected annual job openings. However, there is a wide spectrum of job demand even in the top 10.

HOT JOBS

Marked by a flame icon in the graphs, a hot job is projected to have high growth and also meet the following criteria:

- Median salary is above the state median
- Percentage change is greater than the state average
- Has the most projected openings

Sources: Information is derived using May 2018 Occupational Employment Statistics (OES) Survey, annual data 2018 Quarterly Census of Employment and Wages (QCEW) and Current Employment Statistics (CES) data. Unpublished data from the United States Bureau of Labor Statistics, Current Population Survey (CPS) and United States Census Bureau. To the extent possible, the projections take into account anticipated changes in Wisconsin's economy from 2018 to 2028. Wage estimates are from the Occupational Employment Statistics (OES) survey, May 2018.



Even After COVID-19, LMI Data Is Still Meaningful

There is no doubt that the COVID-19 pandemic has disrupted so much in our lives, from the economy to what types of jobs are available. However, during past recessions, economists have found 10-year LMI projections to still be accurate.

Why? Economies tend to be cyclical. And, 10 years is a long enough time for things to become stabilized. Of course, unanticipated events such as a pandemic may affect the accuracy of LMI projections. However, 10-year projections tend to be way more accurate than short-term data.

In short, LMI data is still helpful even when disruptive events such as a pandemic occur. One good idea for supporting students might be to look at both 10-year LMI projections alongside information about emerging trends in the workplace.

How to Use this Guide with Students

1. Help students see how labor market information could be useful to them. LMI information is essential to help students consider the likelihood the jobs they are interested in will have openings and financially support the lifestyle they hope to have. However, let students know that just because a career isn't expected to be in demand in the future doesn't necessarily mean that it's a career they should not pursue. It may just mean they need to think more critically about how to get the skills and connections to succeed in that career.

2. Break down the different components of LMI. Make sure students understand key definitions featured in this report, including career cluster, regional career pathway, annual total openings, and total job openings and how to interpret salary range.

3. Explore this guide with students and then use other resources to go deeper. Start with having students identify careers or career clusters within this guide that they'd like to learn more about. Then use the following resources to research:

- [Xello](#)
- [My Next Move](#)
- [DPI's LMI website](#)
- [Wisconomy](#)





Career Cluster:

Agriculture, Food, and Natural Resources

In this cluster workers produce, process, market, distribute, finance, and develop agricultural commodities and resources including food, fuel, fiber, wood products, natural resources, horticulture, and other plant and animal products/resources.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
2,491	Farmworkers and Laborers, Crop, Nursery, and Greenhouse	\$17,829-\$31,389	No formal educational credential
1,355	Nonfarm Animal Caretakers	\$17,495-\$26,546	High school diploma or equivalent
1,183	Farmworkers, Farm, Ranch, and Aquacultural Animals	\$20,474-\$32,732	No formal educational credential
361	Agricultural Equipment Operators	\$27,571-\$42,344	No formal educational credential
333	Refuse and Recyclable Material Collectors	\$28,428-\$47,784	No formal educational credential
202	Farm Equipment Mechanics and Service Technicians	\$33,137-\$49,802	High school diploma or equivalent
187	First-Line Supervisors of Farming, Fishing, and Forestry Workers	\$36,704-\$59,802	High school diploma or equivalent
168	Water and Wastewater Treatment Plant and System Operators	\$38,683-\$57,964	High school diploma or equivalent
161	Agricultural and Food Science Technicians	\$27,712-\$45,740	Associate's degree
142	Biological Technicians	\$32,572-\$55,768	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$54,958 - \$95,310	Environmental Engineers	69	Bachelor's degree
\$57,112 - \$81,082	Agricultural Engineers	3	Bachelor's degree
\$50,167 - \$79,957	Animal Scientists	19	Bachelor's degree
\$41,992 - \$73,716	Food Scientists and Technologists	105	Bachelor's degree
\$43,820 - \$67,432	Soil and Plant Scientists	67	Bachelor's degree
\$43,605 - \$66,825	Zoologists and Wildlife Biologists	32	Bachelor's degree
\$38,885 - \$62,281	Environmental Engineering Technicians	20	Associate's degree
\$44,281 - \$61,571	Foresters	43	Bachelor's degree
\$36,704 - \$59,802	First-Line Supervisors of Farming, Fishing, and Forestry Workers	187	High school diploma or equivalent
\$38,683 - \$57,964	Water and Wastewater Treatment Plant and System Operators	168	High school diploma or equivalent

Wages from the Occupational Employment Statistics, estimates from May 2018.



Career Cluster: Architecture and Construction

In this cluster workers design, plan, manage, build, and maintain the built environment.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
3026	Landscaping and Groundskeeping Workers	\$21,475-\$36,965	No formal educational credential
2557	Carpenters 	\$32,361-\$59,952	High school diploma or equivalent
2402	Construction Laborers 	\$29,283-\$51,213	No formal educational credential
1580	Electricians 	\$39,870-\$70,263	High school diploma or equivalent
1219	First-Line Supervisors of Construction Trades and Extraction Workers 	\$49,845-\$81,585	High school diploma or equivalent
1106	Operating Engineers and Other Construction Equipment Operators	\$41,671-\$72,967	High school diploma or equivalent
1104	Plumbers, Pipefitters, and Steamfitters 	\$44,036-\$80,742	High school diploma or equivalent
642	Heating, Air Conditioning, and Refrigeration Mechanics and Installers	\$35,228-\$60,423	Postsecondary non-degree award
634	Highway Maintenance Workers	\$31,046-\$49,139	High school diploma or equivalent
572	Civil Engineers 	\$53,939-\$91,017	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$53,939 - \$91,017	Civil Engineers 	572	Bachelor's degree
\$53,748 - \$90,293	Architects, Except Landscape and Naval	146	Bachelor's degree
\$57,316 - \$88,638	Electrical Power-Line Installers and Repairers	167	High school diploma or equivalent
\$48,311 - \$86,264	Control and Valve Installers and Repairers, Except Mechanical Door	35	High school diploma or equivalent
\$49,845 - \$81,585	First-Line Supervisors of Construction Trades and Extraction Workers 	1219	High school diploma or equivalent
\$28,290 - \$81,262	Elevator Installers and Repairers	32	High school diploma or equivalent
\$44,036 - \$80,742	Plumbers, Pipefitters, and Steamfitters 	1104	High school diploma or equivalent
\$45,666 - \$76,987	Insulation Workers, Mechanical	49	High school diploma or equivalent
\$41,671 - \$72,967	Operating Engineers and Other Construction Equipment Operators 	1106	High school diploma or equivalent
\$34,802 - \$72,815	Floor Layers, Except Carpet, Wood, and Hard Tiles	102	No formal educational credential

Wages from the Occupational Employment Statistics, estimates from May 2018.

 Hot Jobs



Regional Career Pathway: Construction

In Wisconsin, jobs in construction are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional construction pathway to help districts offer new and scale existing construction pathways.

The construction sector is made up of companies and businesses engaged in the construction of buildings or engineering projects (e.g., highways and utility systems). Companies engaged in the preparation of sites for new construction and subdividing land for sale as building sites also are included in this sector.

Jobs in the construction field will be among the fastest growing between 2016 and 2026, according to recent projections (U.S. Department of Labor 2019). "As demand for labor grows, it's crucial that craftspeople are receiving specialized training. These people can provide project leaders with more accurate budget information, assist with material selection, find ways to streamline the overall process and reduce costs. Buildings are becoming more complex. Training skilled craftspeople requires programs that combine classroom training and on-the-job experience, and are most successful when led or supported by companies invested in training their workforce" (Consigli 2018).

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. Find more on the [regional construction pathway page](#).

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. The CTSO that is the most applicable to this career pathway is SkillsUSA.

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hrs.)
- State Skill Standards Co-Op - Construction (480 hrs./1 year)
- Youth Apprenticeship - Architecture and Construction (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination

of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- OSHA 10
- Wisconsin Driver's License
- Multi-Craft Core Curriculum
- Career Connections/Level 3
- Woodwork Career Alliance: Sawblade
- National Center for Construction Education and Research (NCCER)
- North American Technician Excellence (NATE): HVAC Support Technician

Want More Information?

Students: Your school district may have customized resources for this construction pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.





Career Cluster:

Arts, Audio, Video, Technology, and Communications

In this cluster workers design, produce, exhibit, perform, write, and publish multimedia content including visual and performing arts and design, journalism, and entertainment services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
805	Printing Press Operators	\$26,142 - \$44,581	High school diploma or equivalent
695	Graphic Designers	\$31,685 - \$56,121	Bachelor's degree
477	Print Binding and Finishing Workers	\$22,831 - \$38,675	High school diploma or equivalent
473	Telecommunications Equipment Installers and Repairers, Except Line Install	\$35,772 - \$59,522	Postsecondary non-degree award
239	Editors	\$31,727 - \$57,086	Bachelor's degree
218	Photographers	\$19,772 - \$42,233	High school diploma or equivalent
168	Writers and Authors	\$31,029 - \$73,531	Bachelor's degree
166	Producers and Directors	\$29,478 - \$70,919	Bachelor's degree
147	Prepress Technicians and Workers	\$24,869 - \$45,992	Postsecondary non-degree award
130	Telecommunications Line Installers and Repairers	\$31,937 - \$65,679	High school diploma or equivalent

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$39,634 - \$117,833	Broadcast News Analysts	10	Bachelor's degree
\$27,125 - \$93,457	Music Directors and Composers	27	Bachelor's degree
\$53,411 - \$91,670	Art Directors	123	Bachelor's degree
\$36,026 - \$83,811	Designers, All Other	19	Bachelor's degree
\$28,477 - \$74,155	Sound Engineering Technicians	6	Postsecondary non-degree award
\$31,029 - \$73,531	Writers and Authors	168	Bachelor's degree
\$29,478 - \$70,919	Producers and Directors	166	Bachelor's degree
\$19,947 - \$69,554	Radio and Television Announcers	87	Bachelor's degree
\$42,309 - \$68,067	Technical Writers	110	Bachelor's degree
\$41,962 - \$66,624	Commercial and Industrial Designers	100	No formal educational credential

Wages from the Occupational Employment Statistics, estimates from May 2018.



Career Cluster: Business, Management, and Administration

In this cluster workers plan, organize, direct, and evaluate business functions essential to efficient and productive business operations.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
8973	Office Clerks, General	\$23,568 - \$41,335	High school diploma or equivalent
8755	Customer Service Representatives	\$25,209 - \$44,174	High school diploma or equivalent
5130	Stock Clerks and Order Fillers	\$18,733 - \$30,379	High school diploma or equivalent
4303	Bookkeeping, Accounting, and Auditing Clerks	\$26,460 - \$43,632	Some college, no degree
3344	Receptionists and Information Clerks	\$21,214 - \$33,801	High school diploma or equivalent
3320	General and Operations Managers 🔥	\$57,052 - \$161,900	Bachelor's degree
2906	First-Line Supervisors of Office and Administrative Support Workers	\$36,119 - \$65,673	High school diploma or equivalent
2264	Secretaries and Administrative Assistants, Except Legal, Medical, and Exec	\$26,872 - \$41,819	High school diploma or equivalent
1689	Management Analysts 🔥	\$49,705 - \$95,482	Bachelor's degree
1489	Human Resources Specialists 🔥	\$39,732 - \$71,910	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$71,136 - \$196,661	Chief Executives	418	Bachelor's degree
\$57,052 - \$161,900	General and Operations Managers 🔥	3320	Bachelor's degree
\$49,705 - \$95,482	Management Analysts 🔥	1689	Bachelor's degree
\$48,912 - \$84,895	Operations Research Analysts	140	Bachelor's degree
\$28,623 - \$72,115	Business Operations Specialists, All Other	1175	Postsecondary non-degree award
\$39,732 - \$71,910	Human Resources Specialists 🔥	1489	Bachelor's degree
\$38,038 - \$66,081	Meter Readers, Utilities	24	High school diploma or equivalent
\$36,119 - \$65,673	First-Line Supervisors of Office and Administrative Support Workers	2906	High school diploma or equivalent
\$35,384 - \$64,918	Training and Development Specialists 🔥	746	Bachelor's degree
\$41,296 - \$64,655	Compensation, Benefits, and Job Analysis Specialists	150	Bachelor's degree

Wages from the Occupational Employment Statistics, estimates from May 2018.

🔥 Hot Jobs



Regional Career Pathway: Business Management

In Wisconsin, jobs in business management are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional business management pathway to help districts offer new and scale existing business management pathways.

The field of business administration is divided into three pathways including business management, finance, and marketing. Many of the occupations associated with careers in business administration require similar degrees with specialties that may be attained through additional education, credentials, and certifications. The state of Wisconsin displays a high need in all regions of the state for careers related to business administration.

In-demand careers included in the Regional Business Management Pathway are:

- Human resource specialists
- Management analysts
- Customer service representatives
- First-line supervisors
- Logistics: Freight, stock, and material management
- General and operations managers

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. Find more information on the [regional business administration pathways](#) page.

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. Here are the CTSOs that are most applicable to this career pathway:

- Wisconsin DECA
- Wisconsin Future Business Leaders of America

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships

and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hours)
- State Skill Standards Co-Op - Business, Finance, and Marketing (480 hrs./1 year)
- Youth Apprenticeship- Finance and Marketing (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- IC3 (Internet Core Competency Certification)
- Microsoft Office Specialist (MOS) & Microsoft Technology Associate (MTA)* Microsoft or Certiport
- A*S*K - ANY Business or Marketing Certificate Entrepreneurship and Small Business Certification (Certiport)
- Certified Front Desk Representative (CFDR)
- Fundamental Payroll Certification
- Lean Six Sigma Certification (Yellow Belt)
- Professional in Human Resources (aPHR)
- Southwest Airlines Professional Communications Certification
- Certified Meeting Professional (CMP)
- Certified in Logistics, Transportation and Distribution (CLTD)
- Project Management Institute Certifications:
 - Certified Associate in Project Management (CAPM)
 - Project Management Professional (PMP)

Want More Information?

Students: Your school district may have customized resources for this business administration pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.



Career Cluster: Education and Training

In this cluster workers plan, manage, and provide education and training services and related learning support services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
3208	Teacher Assistants	\$21,317 - \$33,315	Some college, no degree
2667	Elementary School Teachers, Except Special Education 🔥	\$41,292 - \$64,505	Bachelor's degree
1672	Secondary School Teachers, Except Special and Career/Technical Education 🔥	\$42,294 - \$66,394	Bachelor's degree
1339	Coaches and Scouts	\$17,309 - \$39,243	Bachelor's degree
1210	Middle School Teachers, Except Special and Career/Technical Education 🔥	\$42,644 - \$68,494	Bachelor's degree
1171	Self-Enrichment Education Teachers	\$20,374 - \$43,479	High school diploma or equivalent
1136	Preschool Teachers, Except Special Education	\$20,882 - \$29,381	Associate's degree
508	Educational, Guidance, School, and Vocational Counselors	\$38,499 - \$63,752	Master's degree
410	Library Technicians	\$19,434 - \$32,429	Postsecondary non-degree award
338	Graduate Teaching Assistants	\$28,229 - \$40,174	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$66,314 - \$146,188	Economics Teachers, Postsecondary	22	Doctoral or professional degree
\$60,754 - \$126,052	Business Teachers, Postsecondary	152	
\$58,145 - \$114,519	Atmospheric, Earth, Marine, and Space Sciences Teachers, Postsecondary	22	
\$48,428 - \$110,751	Social Sciences Teachers, Postsecondary, All Other	13	
\$52,515 - \$110,157	Political Science Teachers, Postsecondary	22	
\$62,778 - \$109,245	Computer Science Teachers, Postsecondary	68	
\$55,894 - \$104,590	Forestry and Conservation Science Teachers, Postsecondary	6	
\$48,018 - \$103,699	Agricultural Sciences Teachers, Postsecondary	34	
\$51,527 - \$101,962	Mathematical Science Teachers, Postsecondary	80	
\$53,519 - \$100,643	Sociology Teachers, Postsecondary	30	

Wages from the Occupational Employment Statistics, estimates from May 2018.

Hot Jobs



Career Cluster: Finance

In this cluster workers plan and provide services for financial and investment planning, banking, insurance, and business financial management.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
2596	Accountants and Auditors 	\$47,623 - \$78,806	Bachelor's degree
1235	Tellers	\$23,129 - \$31,743	High school diploma or equivalent
1125	Insurance Sales Agents 	\$34,954 - \$94,557	High school diploma or equivalent
881	Insurance Claims and Policy Processing Clerks	\$30,016 - \$45,500	High school diploma or equivalent
649	Loan Officers	\$39,161 - \$90,509	Bachelor's degree
566	Personal Financial Advisors 	\$54,422 - \$146,523	Bachelor's degree
560	Claims Adjusters, Examiners, and Investigators	\$42,294 - \$73,977	High school diploma or equivalent
483	Securities, Commodities, and Financial Services Sales Agents	\$37,594 - \$97,877	Bachelor's degree
418	Financial Analysts	\$50,623 - \$96,193	Bachelor's degree
403	Loan Interviewers and Clerks	\$31,928 - \$44,199	High school diploma or equivalent

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$54,422 - \$146,523	Personal Financial Advisors 	566	Bachelor's degree
\$67,101 - \$126,730	Actuaries	60	Bachelor's degree
\$37,594 - \$97,877	Securities, Commodities, and Financial Services Sales Agents	483	Bachelor's degree
\$50,623 - \$96,193	Financial Analysts	418	Bachelor's degree
\$34,954 - \$94,557	Insurance Sales Agents 	1125	High school diploma or equivalent
\$39,161 - \$90,509	Loan Officers	649	Bachelor's degree
\$42,791 - \$84,431	Credit Analysts	176	Bachelor's degree
\$54,357 - \$81,393	Budget Analysts	93	Bachelor's degree
\$47,623 - \$78,806	Accountants and Auditors 	2596	Bachelor's degree
\$48,864 - \$78,571	Insurance Underwriters	171	Bachelor's degree

Wages from the Occupational Employment Statistics, estimates from May 2018.

 Hot Jobs



In Wisconsin, jobs in finance are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional finance pathway to help districts offer new and scale existing finance pathways.

The field of business administration is divided into three pathways including business management, finance, and marketing. Many of the occupations associated with careers in business administration require similar degrees with specialities that may be attained through additional education, credentials, and certifications. The state of Wisconsin displays a high need in all regions of the state for careers related to business administration.

In-demand careers included in the regional finance pathway are:

- Accountants and auditors
- Insurance sales agents
- Securities, commodities, and financial service
- General and operations managers

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. To learn more, go to the [regional business administration pathways page](#).

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. Here are the CTSOs that are most applicable to this career pathway:

- Wisconsin DECA
- Wisconsin Future Business Leaders of America

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships

and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hours)
- State Skill Standards Co-Op - Business, Finance, and Marketing (480 hrs./1 year)
- Youth Apprenticeship - Finance and Marketing (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- IC3 (Internet Core Competency Certification)
- Microsoft Office Specialist (MOS) & Microsoft Technology Associate (MTA)* Microsoft or Certiport
- A*S*K - ANY Business or Marketing Certificate Entrepreneurship and Small Business Certification (Certiport)
- Quickbooks Certified User
- National Bookkeepers Association Tax Certification
- American Banking Association Certifications
 - Bank Teller
 - Customer Service Representative
 - Certified Mortgage Servicer Certificate
 - National Association of Mortgage Brokers (NAMB)
 - General Mortgage Associate Professional Credit Associate
- Associate in Claims
- Associate in General Insurance
- Certified Medical Reimbursement Specialist

Want More Information?

Students: Your school district may have customized resources for this business administration pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.



Career Cluster: Government and Public Administration

In this cluster workers perform governmental functions to include governance; national security; foreign service; planning; revenue and taxation; regulation; and management and administration at the local, state, and federal levels.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
359	Compliance Officers	\$43,464 - \$72,312	Bachelor's degree
153	Construction and Building Inspectors	\$40,777 - \$67,514	High school diploma or equivalent
135	Eligibility Interviewers, Government Programs	\$36,097 - \$49,485	High school diploma or equivalent
128	Financial Examiners	\$52,429 - \$88,802	Bachelor's degree
86	Court, Municipal, and License Clerks	\$31,669 - \$48,888	High school diploma or equivalent
85	Occupational Health and Safety Specialists	\$47,428 - \$75,393	Bachelor's degree
83	Appraisers and Assessors of Real Estate	\$38,288 - \$79,905	Bachelor's degree
69	Legislators	\$17,202 - \$66,154	Bachelor's degree
53	Transportation Security Screeners	\$34,524 - \$42,689	High school diploma or equivalent
47	Agricultural Inspectors	\$39,128 - \$51,462	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$55,556 - \$102,701	Transportation Inspectors	13	High school diploma or equivalent
\$52,429 - \$88,802	Financial Examiners	128	Bachelor's degree
\$38,288 - \$79,905	Appraisers and Assessors of Real Estate	83	Bachelor's degree
\$52,258 - \$78,626	Urban and Regional Planners	39	Master's degree
\$47,428 - \$75,393	Occupational Health and Safety Specialists	85	Bachelor's degree
\$43,264 - \$72,793	Tax Examiners and Collectors, and Revenue Agents	41	Bachelor's degree
\$43,464 - \$72,312	Compliance Officers	359	Bachelor's degree
\$40,777 - \$67,514	Construction and Building Inspectors	153	High school diploma or equivalent
\$17,202 - \$66,154	Legislators	69	Bachelor's degree
\$35,297 - \$58,538	Occupational Health and Safety Technicians	22	High school diploma or equivalent

Wages from the Occupational Employment Statistics, estimates from May 2018.



Career Cluster: Health Science

In this cluster workers plan, manage, and provide therapeutic services, diagnostic services, health informatics, support services, and biotechnology research and development.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
3848	Nursing Assistants	\$24,475 - \$32,141	Postsecondary non-degree award
3602	Registered Nurses 	\$56,516 - \$78,943	Bachelor's degree
1637	Medical Assistants	\$30,252 - \$39,485	Postsecondary non-degree award
730	Dental Assistants 	\$30,400 - \$42,743	Postsecondary non-degree award
655	Home Health Aides	\$20,901 - \$27,549	High school diploma or equivalent
651	Pharmacy Technicians	\$24,787 - \$36,737	High school diploma or equivalent
598	Medical Secretaries	\$29,595 - \$38,948	High school diploma or equivalent
580	Licensed Practical and Licensed Vocational Nurses	\$37,769 - \$49,043	Postsecondary non-degree award
384	Dental Hygienists	\$54,382 - \$71,111	Associate's degree
378	Medical Records and Health Information Technicians	\$31,692 - \$46,873	Postsecondary non-degree award

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$126,868 - \$295,980	Physicians and Surgeons, All Other	270	Doctoral or professional degree
\$157,784 - \$294,772	Family and General Practitioners	99	Doctoral or professional degree
\$179,218 - \$287,603	Internists, General	22	Doctoral or professional degree
\$102,720 - \$263,458	Orthodontists	3	Doctoral or professional degree
\$124,362 - \$257,627	Dentists, General	81	Doctoral or professional degree
\$90,382 - \$256,393	Podiatrists	9	Doctoral or professional degree
\$57,441 - \$252,372	Oral and Maxillofacial Surgeons	3	Doctoral or professional degree
\$92,539 - \$233,033	Psychiatrists	20	Doctoral or professional degree
\$166,287 - \$224,079	Nurse Anesthetists	44	Master's degree
\$104,379 - \$146,415	Pharmacists	228	Doctoral or professional degree

Wages from the Occupational Employment Statistics, estimates from May 2018.

 Hot Jobs



Regional Career Pathway: Patient Care

In Wisconsin, jobs in health care are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional health care pathway to help districts offer new and scale existing health care pathways.

A health-care career pathway prepares students for careers related to medicine, nursing, health science, and allied health programs. Students preparing for health careers can gain valuable career information and learn from professionals throughout the career pathway experience. A pathway provides students with technical skills, health-care competencies, and opportunities to obtain the knowledge necessary to satisfy the requirements for entry-level health-care jobs. A health-care career pathway is intended to educate today's students for tomorrow's global health-care community.

Studies show that the United States will be facing shortages in almost all health careers, not limited to physicians and nurses. One of the biggest factors driving the staffing gap is the aging of the U.S. population. Demand for care among baby boomers is expected to swell in the coming years just as providers are retiring. And while the unemployment rate for health-care workers today is near a 10-year low (around 3 percent), the sector is forecast to add the most jobs (2.3 million) of any industry through 2024, according to the BLS (Maurer 2017).

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. To learn more, go to the [regional health care pathway page](#).

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. The CTSO that is the most applicable to this career pathway is Wisconsin HOSA-Future Health Professionals.

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hrs.)
- Youth Apprenticeship - Health Science (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- Basic Life Support (AHA) or Professional Rescuer (ARC)
- CPR/AED and First Aid
- Certified Nursing Assistant (DHS)
- Medication Aide/Assistant (DHS)
- Feeding Assistant (DHS)
- Emergency Medical Responder (NREMT)
- Medical Assistant (AAMA, AMT, NHA)
- Pharmacy Technician (PTCB)
- Emergency Medical Technician (NREMT)
- Medication Aide/Assistant (DHS)
- Phlebotomy (AMT, NHA)
- Phlebotomy Technician (ASCP)
- IV Technician (ASCP)
- EKG Technician (NHA)

Want More Information?

Students: Your school district may have customized resources for this health care pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.



Career Cluster: Hospitality and Tourism

In this cluster workers manage, market, and operate restaurants and other food services, lodging, attractions, recreation events, and travel-related services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
14781	Combined Food Preparation and Serving Workers, Including Fast Food	\$17,529 - \$21,663	No formal educational credential
8460	Waiters and Waitresses	\$17,576 - \$26,209	No formal educational credential
6658	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	\$20,077 - \$32,263	No formal educational credential
5271	Bartenders	\$17,541 - \$25,332	No formal educational credential
3991	Cooks, Restaurant	\$19,914 - \$28,906	No formal educational credential
2768	First-Line Supervisors of Food Preparation and Serving Workers	\$22,288 - \$36,608	High school diploma or equivalent
2714	Maids and Housekeeping Cleaners	\$18,771 - \$26,079	No formal educational credential
2352	Recreation Workers	\$17,493 - \$29,066	High school diploma or equivalent
1845	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	\$17,514 - \$21,623	No formal educational credential
1638	Food Preparation Workers	\$17,706 - \$25,657	No formal educational credential

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$26,785 - \$78,531	Athletes and Sports Competitors	37	No formal educational credential
\$27,876 - \$56,873	Chefs and Head Cooks	286	High school diploma or equivalent
\$27,221 - \$48,894	First-Line Supervisors of Housekeeping and Janitorial Workers	438	High school diploma or equivalent
\$20,813 - \$45,618	Travel Agents	149	High school diploma or equivalent
\$21,385 - \$38,813	Reservation and Transportation Ticket Agents and Travel Clerks	138	High school diploma or equivalent
\$17,016 - \$37,779	Umpires, Referees, and Other Sports Officials	126	High school diploma or equivalent
\$22,718 - \$36,739	Concierges	30	High school diploma or equivalent
\$22,288 - \$36,608	First-Line Supervisors of Food Preparation and Serving Workers	2768	High school diploma or equivalent
\$19,233 - \$33,716	Animal Trainers	80	High school diploma or equivalent
\$22,483 - \$33,257	Bakers	535	No formal educational credential

Wages from the Occupational Employment Statistics, estimates from May 2018.



Career Cluster: Human Services

In this cluster workers prepare individuals for employment in careers that relate to families and human needs such as counseling and mental health services, family and community services, personal care, and consumer services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
11691	Personal Care Aides	\$21,039.00 - \$25,849	High school diploma or equivalent
2359	Childcare Workers	\$17,617 - \$25,133	High school diploma or equivalent
2018	Fitness Trainers and Aerobics Instructors	\$19,419 - \$38,332	High school diploma or equivalent
1967	Social and Human Service Assistants	\$24,165 - \$43,763	High school diploma or equivalent
1786	Hairdressers, Hairstylists, and Cosmetologists	\$17,831 - \$34,544	Postsecondary non-degree award
802	First-Line Supervisors of Personal Service Workers	\$26,430 - \$44,826	High school diploma or equivalent
448	Child, Family, and School Social Workers	\$32,947 - \$56,190	Bachelor's degree
406	Laundry and Dry-Cleaning Workers	\$19,615 - \$26,977	No formal educational credential
377	Massage Therapists	\$24,217 - \$51,544	Postsecondary non-degree award
369	Healthcare Social Workers	\$39,160 - \$58,875	Master's degree



Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$42,589 - \$99,634	Psychologists, All Other	21	Master's degree
\$53,028 - \$98,608	Clinical, Counseling, and School Psychologists	316	Doctoral or professional degree
\$39,337 - \$69,966	Morticians, Undertakers, and Funeral Directors	113	Associate's degree
\$39,235 - \$64,088	Health Educators	227	Bachelor's degree
\$40,291 - \$63,782	Social Workers, All Other	115	Bachelor's degree
\$29,197 - \$61,999	Marriage and Family Therapists	114	Master's degree
\$25,197 - \$59,604	Directors, Religious Activities and Education	35	Bachelor's degree
\$39,160 - \$58,875	Healthcare Social Workers	369	Master's degree
\$33,052 - \$58,011	Clergy	75	Bachelor's degree
\$32,947 - \$56,190	Child, Family, and School Social Workers	75	Bachelor's degree

Wages from the Occupational Employment Statistics, estimates from May 2018.





Career Cluster: Information Technology

In this cluster workers design, develop, support, and manage hardware, software, multimedia, and systems integration services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
1753	Software Developers, Applications 	\$60,166 - \$101,460	Bachelor's degree
1278	Computer Systems Analysts 	\$54,649 - \$96,391	Bachelor's degree
1156	Computer User Support Specialists 	\$33,933 - \$60,746	Some college, no degree
532	Network and Computer Systems Administrators	\$49,392 - \$88,277	Bachelor's degree
380	Computer Network Support Specialists	\$47,223 - \$79,534	Associate's degree
355	Software Developers, Systems Software	\$63,744 - \$104,120	Bachelor's degree
345	Computer Programmers	\$53,185 - \$92,531	Bachelor's degree
343	Computer Occupations, All Other	\$48,951 - \$87,420	Bachelor's degree
323	Web Developers	\$33,314 - \$63,934	Associate's degree
173	Computer Network Architects	\$64,729 - \$113,299	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$64,729 - \$113,299	Computer Network Architects	173	Bachelor's degree
\$63,744 - \$104,120	Software Developers, Systems Software	355	Bachelor's degree
\$60,166 - \$101,460	Software Developers, Applications 	1753	Bachelor's degree
\$56,426 - \$99,276	Database Administrators	150	Bachelor's degree
\$48,613 - \$97,267	Information Security Analysts	134	Bachelor's degree
\$54,649 - \$96,391	Computer Systems Analysts 	1278	Bachelor's degree
\$53,185 - \$92,531	Computer Programmers	345	Bachelor's degree
\$49,392 - \$88,277	Network and Computer Systems Administrators	532	Bachelor's degree
\$48,951 - \$87,420	Computer Occupations, All Other	343	Bachelor's degree
\$47,223 - \$79,534	Computer Network Support Specialists	380	Associate's degree

Wages from the Occupational Employment Statistics, estimates from May 2018.

 Hot Jobs



Regional Career Pathway: Digital Technology

In Wisconsin, jobs in digital technology are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional digital technology pathway to help districts offer new and scale existing digital technology pathways

Digital technology (DT) careers are now considered integral in all business operations, no matter the industry. Moreover, traditional DT has exploded into broader and more integrated technology careers. This shift calls on students interested in DT to understand the connection between their career and various aspects of DT, such as data integration, analysis, and technological applications that are often part of regular business operations. For those students interested in pursuing careers focused specifically on DT, data, and integrated technology careers, the future is robust with opportunity in a larger, interconnected informational ecosystem.

The digital technology industry employs individuals across a range of industries, from technology to health care, finance, and education. As an occupational field, digital technology is projected to be one of the fastest growing in the nation, collectively producing 18 percent of job openings nationally. (Understanding Information Technology: A Guide to IT Career Opportunities, 2019)

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. To learn more, go to the [regional digital technology pathway page](#).

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. Here are the CTSOs that are most applicable to this career pathway:

- Future Business Leaders of America
- SkillsUSA

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hrs.)
- State Skill Standards Co-Op - Business/IT (480 hrs./1 year)
- Youth Apprenticeship - IT (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- | | |
|---|---|
| • IC3 | • CompTIA |
| • Microsoft MOS*, MTA*, MCSA, MCSD, MCSE via Microsoft or Certiport | – sECURITY+ |
| • Apple Certified Support Professional (ACSP) & Certified Mac Technician (ACMT) | • Palo Alto (PCCSA, PCNSA, PCNSE) |
| • COMPTIA | • Oracle Certified Junior Associate or higher |
| – IT Fundamentals A+ | – Java Foundations |
| – Security+ | – Oracle Database Foundations |
| – Network+ | • Cisco |
| – Project+ | – CCENT |
| – Cloud Essentials+ | – CCNA-Any specialty |
| • Cisco | • LINUX-Essentials |
| – CCENT | • Certified Network Defense Architect (CDNA) |
| – CCT | • Certiport: |
| – CCNA-Any Specialty | – Swift Certification Level 1 |
| | • Google Developer |
| | • Adobe |

Want More Information?

Students: Your school district may have customized resources for this digital technology pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESA to see if this regional career pathway is offered in your region and how your district can align to it.



Career Cluster: Law, Public Safety, Corrections, and Security

In this cluster workers plan, manage, and provide legal, public safety, protective services, and homeland security, including professional and technical support services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
1934	Lifeguards, Ski Patrol, and Other Recreational Protective Service Workers	\$17,537 - \$22,452	No formal educational credential
1500	Security Guards	\$21,360 - \$32,278	High school diploma or equivalent
888	Police and Sheriff's Patrol Officers	\$44,842 - \$70,631	High school diploma or equivalent
650	Firefighters	\$24,881 - \$48,026	Postsecondary non-degree award
556	Paralegals and Legal Assistants 	\$35,222 - \$57,925	Associate's degree
524	Correctional Officers and Jailers	\$36,764 - \$47,968	High school diploma or equivalent
460	Lawyers	\$63,721 - \$163,818	Doctoral or professional degree
412	Emergency Medical Technicians and Paramedics	\$23,674 - \$40,327	Postsecondary non-degree award
353	Protective Service Workers, All Other	\$22,975 - \$41,269	High school diploma or equivalent
179	Crossing Guards	\$23,466 - \$36,409	No formal educational credential

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$63,721 - \$163,818	Lawyers	460	Doctoral or professional degree
\$62,924 - \$140,770	Judges, Magistrate Judges, and Magistrates	7	Doctoral or professional degree
\$66,023 - \$94,455	First-Line Supervisors of Police and Detectives	103	High school diploma or equivalent
\$48,290 - \$86,265	First-Line Supervisors of Fire Fighting and Prevention Workers	63	Postsecondary non-degree award
\$60,732 - \$84,514	Detectives and Criminal Investigators	91	High school diploma or equivalent
\$41,821 - \$78,987	Arbitrators, Mediators, and Conciliators	9	Bachelor's degree
\$34,321 - \$72,980	Court Reporters	11	Postsecondary non-degree award
\$44,842 - \$70,631	Police and Sheriff's Patrol Officers	888	High school diploma or equivalent
\$57,133 - \$70,530	First-Line Supervisors of Correctional Officers	47	High school diploma or equivalent
\$32,597 - \$62,645	Legal Support Workers, All Other	38	Associate's degree

Wages from the Occupational Employment Statistics, estimates from May 2018.





Career Cluster: Manufacturing

In this cluster workers plan, manage, and perform the processing of materials into intermediate or final products and related professional and technical support activities such as production planning and control, maintenance, and manufacturing/process engineering.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
3712	Maintenance and Repair Workers, General	\$27,785 - \$48,860	High school diploma or equivalent
2950	Packaging and Filling Machine Operators and Tenders	\$23,689 - \$40,057	
2698	First-Line Supervisors of Production and Operating Workers 🔥	\$41,123 - \$71,134	
1846	Food Batchmakers	\$23,122 - \$40,775	
1809	Welders, Cutters, Solderers, and Brazers 🔥	\$33,492 - \$48,487	
1686	Inspectors, Testers, Sorters, Samplers, and Weighers	\$28,601 - \$46,823	
1643	Machinists 🔥	\$31,702 - \$48,869	
1561	Helpers--Production Workers	\$22,245 - \$38,106	
1124	Computer-Controlled Machine Tool Operators, Metal and Plastic	\$32,672 - \$49,957	
1093	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal	\$29,209 - \$43,848	

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$77,280 - \$96,682	Power Distributors and Dispatchers	8	High school diploma or equivalent
\$61,044 - \$85,074	Electrical and Electronics Repairers, Powerhouse, Substation, and Relay	25	Postsecondary non-degree award
\$49,710 - \$80,356	First-Line Supervisors of Mechanics, Installers, and Repairers 🔥	878	High school diploma or equivalent
\$42,780 - \$79,334	Power Plant Operators	56	High school diploma or equivalent
\$41,684 - \$75,518	Plant and System Operators, All Other	13	High school diploma or equivalent
\$33,350 - \$73,111	Radio, Cellular, and Tower Equipment Installers and Repairers	9	Associate's degree
\$41,123 - \$71,134	First-Line Supervisors of Production and Operating Workers 🔥	2698	High school diploma or equivalent
\$39,162 - \$68,582	Engineering Technicians, Except Drafters, All Other	134	Associate's degree
\$44,541 - \$68,209	Drafters, All Other	16	Associate's degree
\$34,692 - \$67,817	Chemical Plant and System Operators	73	High school diploma or equivalent

Wages from the Occupational Employment Statistics, estimates from May 2018.

Hot Jobs



Regional Career Pathway: Advanced Manufacturing

In Wisconsin, jobs in manufacturing are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional manufacturing pathway to help districts offer new and scale existing manufacturing pathways.

The term “advanced manufacturing technology” has been coined for this particular pathway to encompass the industry’s rapidly changing nature. In its simplest definition, manufacturing takes in raw materials to produce products that are useful for a customer. Advanced manufacturing builds on this definition by utilizing technology to improve products or processes, thereby increasing efficiency, reliability, and quality for newer and better products.

However, with the recognition of Industry 4.0 as an evolutionary integration of processes, equipment, and trained personnel, manufacturing must now account for an ever-changing, constantly progressing wave of data and information integrated into combinations of technologies that impact products and processes in ways never before anticipated. For this reason, these educational building blocks embrace a broader definition of what it means to build a career in manufacturing.

Nearly every new product developed and every existing product being changed and improved will depend on advanced manufacturing processes. Whether just through the design process or all the way through final production, advanced manufacturing will contribute efficiencies necessary to be competitive in a global market.

This demand for advanced manufacturing processes will, in turn, require a steady flow of workers with the requisite skills. Consequently, the demand for the advanced manufacturing process will continue to grow into the foreseeable future.

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. To learn more, go to the [regional manufacturing pathway page](#).

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. The CTSO that is most applicable to this career pathway is SkillsUSA.

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hrs.)
- Youth Apprenticeship-Manufacturing (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- OSHA 10
- American Welding Society (AWS) Level 1 Entry Welder
- Manufacturing Skills Standards Council-Certified Production Technician (full program or any of the modules)
- National Institute for Metal Working Skills (NIMS)
 - Industrial Technology Maintenance Level 1
 - Machining Level
 - Metalforming Level 1
- The Association for Packaging and Processing Technologies Mechatronics Certification
- Certified Solidworks Associate
- Snap On-Precision Measurement Instruments, Multimeter, Mechanical and Electronic Torque Certification
- Smart Automation Certification Alliance (SACA)-Associate Level
- NC3 Industry 4.0 and Mechatronics
- NC3 Industry 4.0 and Mechatronics
- Lean Six Sigma (ASQ)
- MSSC-Certified Logistics Technician (CLT)

Want More Information?

Students: Your school district may have customized resources for this business administration pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.



Career Cluster: Marketing, Sales, and Service

In this cluster workers plan, manage, and perform marketing activities to reach organizational objectives.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
11677	Cashiers	\$17,532 - \$23,914	No formal educational credential
11276	Retail Salespersons	\$17,693 - \$30,961	No formal educational credential
4432	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific 🔥	\$37,501 - \$85,284	High school diploma or equivalent
2251	Sales Representatives, Services, All Other	\$28,627 - \$70,624	High school diploma or equivalent
2117	First-Line Supervisors of Retail Sales Workers	\$28,090 - \$50,627	High school diploma or equivalent
1747	Market Research Analysts and Marketing Specialists 🔥	\$35,675 - \$68,727	Bachelor's degree
1043	Counter and Rental Clerks	\$18,647 - \$36,584	No formal educational credential
844	Driver/Sales Workers	\$18,247 - \$35,837	High school diploma or equivalent
792	First-Line Supervisors of Non-Retail Sales Workers	\$55,053 - \$113,630	High school diploma or equivalent
786	Public Relations Specialists	\$35,902 - \$73,639	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$46,124 - \$123,891	Real Estate Brokers	77	High school diploma or equivalent
\$64,569 - \$117,159	Sales Engineers	190	Bachelor's degree
\$55,053 - \$113,630	First-Line Supervisors of Non-Retail Sales Workers	792	High school diploma or equivalent
\$42,399 - \$98,377	Sales Representatives, Wholesale and Manufacturing, Technical and Scientific	428	Bachelor's degree
\$37,501 - \$85,284	Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific 🔥	4432	High school diploma or equivalent
\$35,902 - \$73,639	Public Relations Specialists 🔥	786	Bachelor's degree
\$28,627 - \$70,624	Sales Representatives, Services, All Other	2251	High school diploma or equivalent
\$35,675 - \$68,727	Market Research Analysts and Marketing Specialists 🔥	1747	Bachelor's degree
\$26,767 - \$65,153	Advertising Sales Agents	272	High school diploma or equivalent
\$24,743 - \$61,670	Real Estate Sales Agents	361	High school diploma or equivalent

Wages from the Occupational Employment Statistics, estimates from May 2018.

 Hot Jobs



Regional Career Pathway: Marketing

In Wisconsin, jobs in marketing are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional marketing pathway to help districts offer new and scale existing marketing pathways.

The field of business administration is divided into three pathways including business management, finance, and marketing. Many of the occupations associated with careers in business administration require similar degrees with specialities that may be attained through additional education, credentials, and certifications. The state of Wisconsin displays a high need in all regions of the state for careers related to business administration.

In-demand careers included in the Regional Marketing Pathway

- Sales representatives
- Market research analysts and marketing specialists
- Public relations specialists
- General and operations managers

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. To learn more, go to the [regional business administration pathways page](#).

Career Pathway Components in High School Include:

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. Here are the CTSOs that are most applicable to this career pathway:

- Wisconsin DECA
- Wisconsin Future Business Leaders of America

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hours)
- State Skill Standards Co-Op - Business, Finance, and Marketing (480 hrs./1 year)

- Youth Apprenticeship - Finance and Marketing (450 hrs./year; 1-2 years)

Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- IC3 (Internet Core Competency Certification)
- Microsoft Office Specialist (MOS) & Microsoft Technology Associate (MTA)* Microsoft or Certiport
- A*S*K - ANY Business or Marketing Certificate Entrepreneurship and Small Business Certification (Certiport)
- Account-Based Marketing Certification (ABM)
- Certified Event Rental Professional
- Certified Pricing Professional (CPP)
- National Retail Federation--RISEUP Certifications
- Adobe
- Certificate in Principles of Public Relations
- Certified Digital Marketing Professional
- Certified Web and Mobile App Developer Associate (CWMA-Associate)
- Facebook Blueprint Certifications
- Hootsuite Social Media Marketing Certification
- Hubspot Certifications
- Professional Certified Marketer-Digital Marketing
- Google Ads Certifications
- Google Analytics Certifications

Want More Information?

Students: Your school district may have customized resources for this business administration pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.



Career Cluster: Science, Technology, Engineering, and Math

In this cluster workers plan, manage, and provide scientific research and professional and technical services (e.g., physical science, social science, engineering) including laboratory and testing services, and research and development services.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
858	Mechanical Engineers 	\$57,348 - \$90,372	Bachelor's degree
716	Industrial Engineers 	\$56,314 - \$87,729	Bachelor's degree
289	Electrical Engineers	\$62,613 - \$97,715	Bachelor's degree
272	Chemists	\$48,544 - \$83,265	Bachelor's degree
140	Environmental Scientists and Specialists, Including Health	\$41,148 - \$70,968	Bachelor's degree
109	Life, Physical, and Social Science Technicians, All Other	\$29,611 - \$63,951	Associate's degree
104	Engineers, All Other	\$56,189 - \$101,812	Bachelor's degree
82	Conservation Scientists	\$46,766 - \$75,025	Bachelor's degree
61	Computer Hardware Engineers	\$61,937 - \$102,207	Bachelor's degree
60	Health and Safety Engineers, Except Mining Safety Engineers and Inspectors	\$47,866 - \$77,105	Bachelor's degree

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$87,097 - \$182,464	Physicists	26	Doctoral or professional degree
\$61,248 - \$109,023	Atmospheric and Space Scientists	9	Bachelor's degree
\$60,331 - \$108,294	Chemical Engineers	53	Bachelor's degree
\$61,937 - \$102,207	Computer Hardware Engineers	61	Bachelor's degree
\$37,053 - \$101,877	Sociologists	34	Master's degree
\$56,189 - \$101,812	Engineers, All Other	104	Bachelor's degree
\$58,351 - \$99,640	Aerospace Engineers	4	Bachelor's degree
\$38,239 - \$98,150	Physical Scientists, All Other	11	Bachelor's degree
\$62,613 - \$97,715	Electrical Engineers	289	Bachelor's degree
\$54,914 - \$96,163	Materials Engineers	31	Bachelor's degree

Wages from the Occupational Employment Statistics, estimates from May 2018.

 Hot Jobs



Regional Career Pathway: STEM-Energy

In Wisconsin, jobs in STEM-Energy are in high demand with opportunities at multiple skill levels. Therefore, our state has created a regional STEM-Energy pathway to help districts offer new and scale existing STEM-Energy pathways.

As the electric power industry transforms with increasing technological advancements, managed by an aging skilled workforce, the need to participate in developing a diverse and qualified talent pool is critical. The energy sector nationally, and in Wisconsin, enjoys strong employer support through membership in the national Center for Energy Workforce Development (CEWD). The CEWD “focuses on closing the skill gaps in mission critical jobs as the industry faces changes in technology and leads the way to a cleaner energy future. Over the past 10 years, CEWD has worked to create a strong foundation of partnership between the energy industry, education, and workforce development to implement proven and scalable workforce solutions that save time, conserve resources, and reduce costs” (Center for Energy Workforce Development 2020).

Resources to Help High School Students Prepare Now

Industry professionals, K-12 educators, and higher education leaders teamed up to develop this regional career pathway to show students what they can do in high school to prepare for careers in this growing industry. To learn more, go to the [STEM-Energy pathway page](#).

Career Pathway Components in High School

Dual enrollment (also referred to as college-credit opportunities) allows students to take college classes while they are still in high school.

Career and technical student organizations (CTSOs) are co-curricular groups for students to further their knowledge and skills by participating in activities, events, and competitions. The CTSO that is most applicable to this career pathway is SkillsUSA.

Work-based learning opportunities are a way to test drive a career by experiencing it. Work-based learning can include programs such as internships and apprenticeships. Here are the work-based learning programs most applicable to this career pathway:

- Employability Skills (90 hrs.)
- Youth Apprenticeship - Architecture & Construction (electrical focus) (450 hrs./year; 1-2 years)
- Youth Apprenticeship - STEM (electrical engineering focus) (450 hrs/year; 1-2 years)

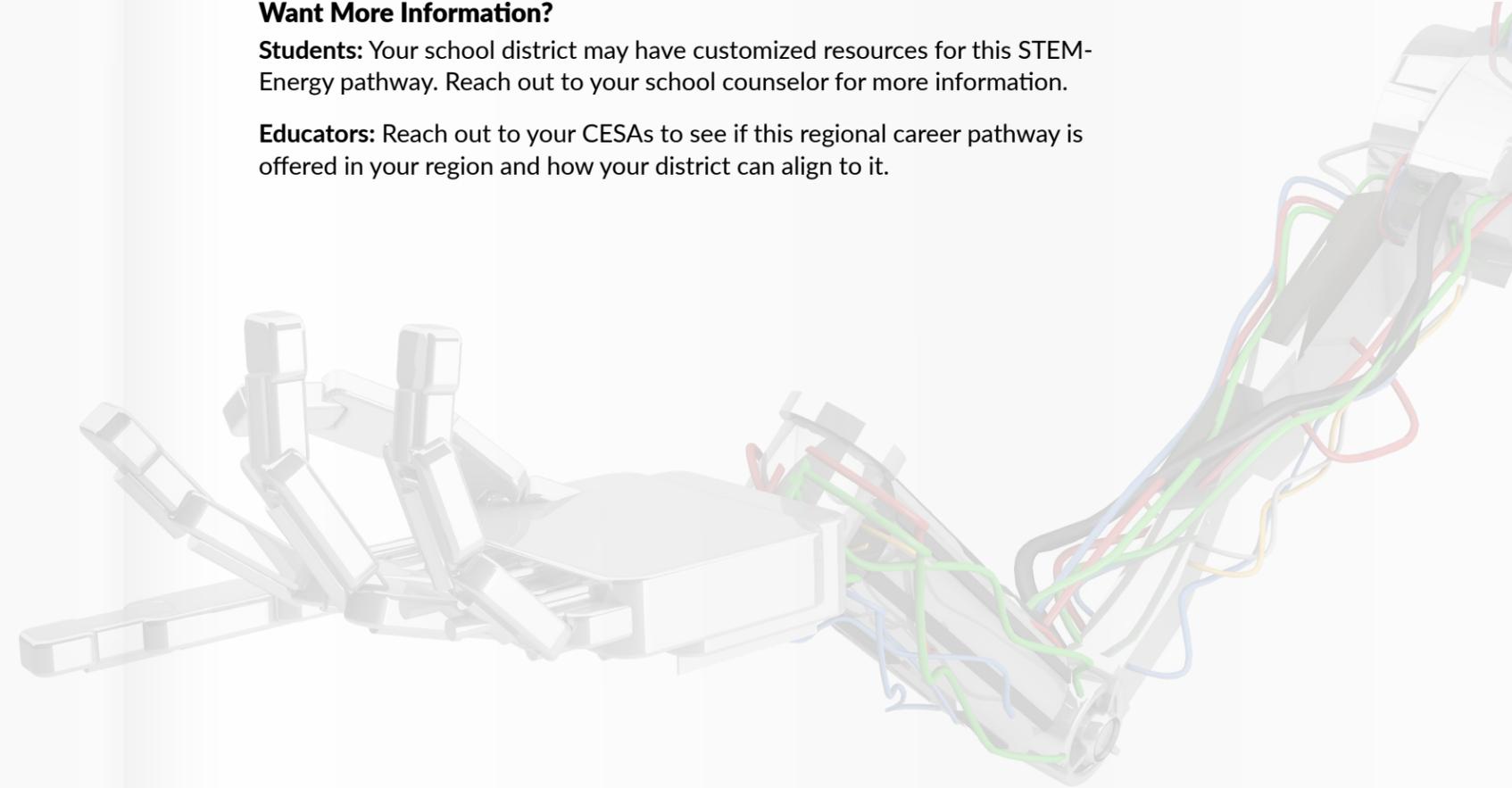
Industry-recognized credentials confirm that students have key skills and knowledge needed for a certain occupation. They usually include a combination of an examination, demonstration of skills, and experience requirements. Here are the industry-recognized credentials most applicable to this career pathway:

- First Aid; CPR/AED
- WorkKeys/National Career Readiness Certificate
- CEWD Energy Industry Fundamentals Certificate (EIF)
- CDL
- National Institute for Metalworking Skills (NIMS)
 - Machining Level I- Measurement, Materials & Safety
 - Machining Level I- Job Planning, Benchwork & Layout
 - Refrigeration License
 - FAA Drone Operator

Want More Information?

Students: Your school district may have customized resources for this STEM-Energy pathway. Reach out to your school counselor for more information.

Educators: Reach out to your CESAs to see if this regional career pathway is offered in your region and how your district can align to it.





Career Cluster: Transportation, Distribution, and Logistics

In this cluster workers plan, manage, and move people, materials, and goods by road, pipeline, air, rail, and water. This cluster also includes related professional and technical support services such as transportation infrastructure planning and management, logistics services, mobile equipment, and facility maintenance.

Top 10 WI Occupations with Most Projected Job Openings (2018-2028)

Projected Annual Total Job Openings	Occupation	Salary Range	Education Needed
8089	Laborers and Freight, Stock, and Material Movers, Hand	\$24,115 - \$37,980	No formal educational credential
6593	Heavy and Tractor-Trailer Truck Drivers 	\$33,257 - \$52,297	Postsecondary non-degree award
2911	Packers and Packagers, Hand	\$20,110 - \$32,939	No formal educational credential
2235	Light Truck or Delivery Services Drivers	\$20,270 - \$40,414	High school diploma or equivalent
1662	Industrial Truck and Tractor Operators	\$28,639 - \$42,508	No formal educational credential
1411	Bus Drivers, School or Special Client	\$24,326 - \$38,554	High school diploma or equivalent
1331	Automotive Service Technicians and Mechanics	\$27,928 - \$47,807	Postsecondary non-degree award
1325	Cleaners of Vehicles and Equipment	\$20,265 - \$32,112	No formal educational credential
1201	Taxi Drivers and Chauffeurs	\$17,588 - \$27,303	No formal educational credential
714	Billing and Posting Clerks	\$31,328 - \$42,071	High school diploma or equivalent

Highest Paying Occupations in WI

Salary Range	Occupation	Annual Total Job Openings	Education Needed
\$88,454 - \$115,133	Airline Pilots, Copilots, and Flight Engineers	6	Bachelor's degree
\$74,669 - \$113,412	Air Traffic Controllers	13	Associate's degree
\$48,148 - \$96,705	Commercial Pilots	43	High school diploma or equivalent
\$43,860 - \$78,329	Aircraft Cargo Handling Supervisors	14	High school diploma or equivalent
\$49,512 - \$77,004	Railroad Conductors and Yardmasters	48	High school diploma or equivalent
\$42,483 - \$72,799	Logisticians	368	Bachelor's degree
\$51,448 - \$69,549	Locomotive Engineers	61	High school diploma or equivalent
\$35,034 - \$65,945	Tank Car, Truck, and Ship Loaders	29	No formal educational credential
\$38,734 - \$64,009	Electrical and Electronics Installers and Repairers, Transportation Equipment	7	Postsecondary non-degree award
\$42,134 - \$62,997	Rail Car Repairers	11	High school diploma or equivalent

Wages from the Occupational Employment Statistics, estimates from May 2018.





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