



## Table of Contents

Introduction.....	3
The User Interface.....	4
What are SOC's, CIP's, and Career Clusters and Pathways .....	4
SOC codes – Standard Occupational Classification (SOC) codes .....	4
CIP codes – Classification of Instructional Programs (CIP) codes.....	4
Career Clusters & Pathways.....	5
Which SOC, CIP, or Career Cluster should I use? .....	5
Review Career Cluster/Pathway options .....	5
Review SOC code options.....	6
Review CIP code options .....	7
Searching by Key Word.....	7
Review Occupation-Program Sets .....	7
Occupation-Program Sets (SOC – CIP sets).....	8
Data Table.....	8
Demand, Supply, and Data Report Tabs.....	8
Demand Indicators.....	8
Supply Indicators.....	9
Data Interpretation Guide .....	10
Selecting a Region.....	10
Data Interpretation.....	12
APPENDICES.....	13
DEFINITIONS.....	13
LMIwise DATA SOURCES.....	15
ADDITIONAL DATA SOURCES.....	16

## Introduction

LMIwise, a seamless flexible web tool, allows users to easily access and analyze labor market supply and demand data.

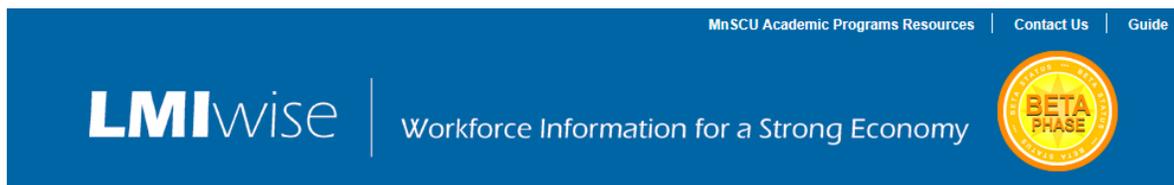
Using program or occupation titles/descriptions, or by simply browsing career clusters or occupation-program sets, you can view a wide variety of occupational demand indicators, including current employment, wages, and projected growth. You can also view the supply of recent graduates from Minnesota and neighboring states. A comprehensive interpretation guide walks users through the process of compiling and analyzing these data.

LMIwise:

- \* is available free of charge for MNSCU campuses;
- \* uses DEED LMI data;
- \* has a simple but powerful user interface;
- \* offers a flexible search, including the option to search by career clusters and pathways;
- \* provides custom occupation-program sets to estimate counts of supply and demand;
- \* includes IPEDs supply data for states bordering Minnesota;
- \* offers data interpretation tips and guidelines;
- \* is built on a flexible infrastructure easily allowing future enhancements that are financially achievable.

Future enhancements may include: adding occupational skill, knowledge, ability, and task information; delivering MnSCU graduate follow-up or student interest data to support academic program planning and review and incorporating WDQI or SLEDS data. LMIwise is built on agile technology that is easily customized for the ongoing needs of Minnesota State Colleges and Universities.

Please send suggestions for improvement and enhancements by clicking on the BETA Phase symbol on the LMIwise website.



- [LMIwise Homepage](#)
- [Contact Us](#)
- [Guide](#)
- [Beta Feedback](#)
- [LMIwise Data Sources](#)

### Beta Feedback

Welcome to the beta version of the LMIwise website.

During beta testing, we encourage you to report any bugs you encounter or suggest ideas for improvement. Please submit your feedback through the [LMIwise online help form](#).

We will update this page with plans for future functional enhancements as they are decided.

We appreciate your help!

## The User Interface

LMIwise is built to provide multiple ways to search for labor market supply and demand data. Users may search for data using a Key Word i.e. “nurse”, CTE career cluster name, and CIP or SOC codes.

Search by occupation or program code or keyword 

Enter 6-digit codes as: 29-1141 (SOC) or 04.0201 (CIP)

The manner of your search will produce different numbers of results. For example, searching by Career Cluster “health sciences” produces 92 occupation program sets, while searching by SOC code 31-9091 or CIP code 51.0601 produces 1 set. For a refined search, selecting a specific SOC or CIP code is advantageous.

## What are SOC’s, CIP’s, and Career Clusters and Pathways

### SOC codes – Standard Occupational Classification (SOC) codes

Each occupation is assigned a SOC code by the U.S. Department of Labor. The format 00-0000 is used.

The 2010 Standard Occupational Classification (SOC) system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of 840 detailed occupations according to their occupational definition. To facilitate classification, detailed occupations are combined to form 461 broad occupations, 97 minor groups, and 23 major groups. Detailed occupations in the SOC with similar job duties, and in some cases skills, education, and/or training, are grouped together. (<http://www.bls.gov/soc/>)

Example: 31-9091 Dental Assistant

**Definition:** Assist dentist, set up equipment, prepare patient for treatment, and keep records.

### CIP codes – Classification of Instructional Programs (CIP) codes

Each academic program is assigned a CIP code by the college or university offering the program. The format 00.0000 is used. The Classification of Instructional Programs (CIP) provides a taxonomic scheme that supports the accurate tracking and reporting of fields of study and program completions activity. (<http://nces.ed.gov/ipeds/cipcode/Default.aspx?y=55>)

Codes are selected from a list produced by the National Center for Educational Statistics. CIP code definitions describe the academic content of a program.

Example: 51.0601 Dental Assisting/Assistant

**Definition:** A program that prepares individuals to provide patient care, take dental radiographs (x-ray photographs), prepare patients and equipment for dental procedures, and discharge office administrative functions under the supervision of dentists and dental hygienists. Includes instruction in medical record-keeping, general office duties, reception and patient intake, scheduling, equipment maintenance and sterilization, basic radiography, pre- and post-operative patient care and instruction, chairside assisting, taking tooth and mouth impressions, and supervised practice.

## Career Clusters & Pathways

Sixteen career clusters and their related pathways have been developed by the National Career Clusters Framework. Each career cluster represents a distinct grouping of occupations and industries based on the knowledge and skills they require. There are 16 career clusters representing more than 79 career pathways. As an organizing tool for curriculum design and instruction, it functions as a useful guide in developing programs of study bridging secondary and postsecondary curricula.

(<http://www.careertech.org/career-clusters>)

Example:

Business Management & Administration Cluster

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

## Which SOC, CIP, or Career Cluster should I use?

Links on the home page provide SOCs, CIPs, or Career Clusters & Pathway options to browse. Clicking on the question mark opens explanations about each option.

Or, browse by:

[Career cluster or career pathway](#) ?

[Occupation name or SOC code](#) ?

[Program name or CIP code](#) ?

[Occupation-Program set](#) ?

### Career cluster or career pathway

You can browse occupation-program sets by career cluster or career pathway. Career clusters are one way to group careers with common features. There are 16 different career clusters. Each cluster includes one or more career pathways. Career pathways are small groups of related career specialties within a career cluster. There are 81 career pathways.

## Review Career Cluster/Pathway options

The link [Career cluster or career pathway](#) ? provides a list of career clusters. Click on the + sign to reveal a drop down list of career pathway options. Choose the pathway you are interested in learning more about and click the “Select Pathway” button. You will be presented with all related Occupation-Program sets from which to browse and choose.

## Career Clusters and Pathways

[Print Page](#)

Select one or many pathways below to display related occupation-program sets.

### Career Clusters and Pathways

Select Pathways

#### - Agriculture, Food, and Natural Resources

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

#### + Architecture and Construction

Pathways: **Plant Systems**

60 results found

Select an occupation-program set title below to display related demand and supply data.

Career Cluster Title ▲	Career Pathway Title	Occupation Title	Occupation-Program Set Title
Agriculture, Food, and Natural Resources	Plant Systems	Continuous Mining Machine Operators	<a href="#">Construction and Excavation Equipment Operators</a>
Agriculture, Food, and Natural Resources	Plant Systems	Earth Drillers, Except Oil and Gas	<a href="#">Construction and Excavation Equipment Operators</a>
Agriculture, Food, and Natural Resources	Plant Systems	Mine Cutting Machine Operators	<a href="#">Construction and Excavation Equipment Operators</a>
Agriculture, Food, and Natural Resources	Plant Systems	Mining and Geological Engineers	<a href="#">Mining and Geological Engineers</a>
Agriculture, Food, and Natural Resources	Plant Systems	Environmental Engineers	<a href="#">Civil and Environmental Engineers</a>
Agriculture, Food, and Natural Resources	Plant Systems	Pest Control Workers	<a href="#">Pest Control Workers</a>
Agriculture, Food, and Natural Resources	Plant Systems	Tree Trimmers and Pruners	<a href="#">Landscaping Laborers</a>

- Job Family (2-Digit SOC):
- 11: Management Occupations (35)
- 13: Business and Financial Operations Occupations (33)
- 15: Computer and Mathematical Occupations (19)
- 17: Architecture and Engineering Occupations (35)
- 19: Life, Physical, and Social Science Occupations (48)

## Review SOC code options

The link [Occupation name or SOC code](#) provides a comprehensive list of all occupations by SOC code. This list may be filtered by selecting a range of wages or by selecting a specific “job family”. Job Families are groups of similar occupations based on work performed and on required skills, education, training, and credentials. You may select from any of the 23 Standard Occupational Classification job families to focus your search. The number in parentheses to the right of the family name [11: Management Occupations (35)] indicates the count of individual occupations in that

family.

[Start a new search](#)

## Occupation Results

[Print Page](#)

857 occupations found

Select an occupation-program set title below to display related demand and supply data. [SOC descriptions](#).

Narrow Your Results by:

- Wages

- Less than \$10 (26)
- \$10 - \$20 (288)
- \$20 - \$30 (211)
- \$30 - \$40 (119)
- More than \$40 (97)

[Filter Results](#)

+ Job Family (2-Digit SOC):

SOC Code ▲	Occupation Title	Statewide Median Wage	Occupation-Program Set Title
11-1011	Chief Executives	\$77.86	<a href="#">Top Executives and Operations Managers</a>
11-1021	General and Operations Managers	\$42.21	<a href="#">Top Executives and Operations Managers</a>
11-1031	Legislators	\$8.73	<a href="#">Legislators</a>
11-2011	Advertising and Promotions Managers	\$48.68	<a href="#">Advertising and Promotions Managers</a>
11-2021	Marketing Managers	\$55.81	<a href="#">Marketing Managers</a>
11-2022	Sales Managers	\$50.53	<a href="#">Sales Managers</a>

## Review CIP code options

The link [Program name or CIP code](#) provides 48 different subject level CIP code categories from which to filter. In the MnSCU Program Inventory similar programs are assigned to the same CIP code, therefore, it may be helpful to first search the [MnSCU program inventory](#) to see what CIP codes are being used for comparable approved programs. The number in parentheses to the right of the subject name [01: Agriculture, Agriculture Operations, And Related Sciences (143)] indicates the count of individual program CIP codes in that grouping. Select the Subject 2-Digit CIP and press Enter or scroll to the bottom of the list and click the “Filter Results” button.

**Narrow Your Results by:**

– Subject (2-Digit CIP):

- 01: Agriculture, Agriculture Operations, And Related Sciences (143)
- 03: Natural Resources And Conservation (58)
- 04: Architecture And Related Services (23)
- 05: Area, Ethnic, Cultural, Gender, And Group Studies (46)
- 09: Communication, Journalism, And Related Programs (46)

2,619 programs found

Select an occupation-program set title below to display related demand and supply data. CIP descriptions.

CIP Code ^	Program Title	Occupation-Program Set Title
01.0000	Agriculture, General	<a href="#">Agricultural Sciences Teachers, Postsecondary</a>
01.0101	Agricultural Business and Management, General	<a href="#">Farmers, Ranchers, and Other Agricultural Managers</a>
01.0101	Agricultural Business and Management, General	<a href="#">Agricultural Sciences Teachers, Postsecondary</a>
01.0102	Agribusiness/Agricultural Business Operations	<a href="#">Agricultural Sciences Teachers, Postsecondary</a>
01.0103	Agricultural Economics	<a href="#">College Economics Teachers</a>
01.0103	Agricultural Economics	<a href="#">Economists</a>
01.0103	Agricultural Economics	<a href="#">Agricultural Sciences Teachers, Postsecondary</a>

## Searching by Key Word

When the “Key Word” search is used, the site will search for that key word in all the fields used in the LMIwise tool including: CIP code, CIP title, CIP description, SOC code, SOC title, SOC description, Occupation Program Set (OPS) title, OPS description, OPS keywords (SOC lay titles). Anytime the word appears, a result will be presented. Therefore, when reviewing the list you may see a longer list of results than you expected. The most relevant matches will always display at the top of the list.

## Review Occupation-Program Sets

The link [Occupation-Program set](#) provides a complete list of occupation-program sets. An Occupation-Program set is a defined group of occupations and programs that share supply. Often one program is associated with one occupation. Sometimes supply for one occupation may be provided by several educational programs, and other times multiple educational programs supply multiple occupations. If you know the name of the set, you may narrow your results alphabetically, and then browse.

[Start a new search](#)

**Narrow by:**

[A-C](#) [D-F](#) [G-I](#) [J-L](#) [M-O](#)  
[P-R](#) [S-U](#) [V-X](#) [Y-Z](#)  
[Show All](#)

### Occupation-Program Sets

[Print Page](#)

655 occupation-program sets found

Select an occupation-program set title below to display related demand and supply data. If you are unsure of the occupation-program set title, [return to the homepage](#) to search by keyword.

**Occupation-Program Set Title ^**

[Accountants and Auditors](#)  
This occupation-program set includes accountants and auditors with related postsecondary programs: accounting and computer science, financial forensics and fraud investigation, accounting, auditing, accounting and finance, accounting and business/management, and taxation.

---

[Accounting and Related Services, Other](#)  
This occupation-program set does not include an occupation. It contains a postsecondary program: accounting and related services, other.

---

[Actors](#)  
This occupation-program set includes actors and related postsecondary programs: acting; and musical theatre.

---

[Actuaries](#)  
This occupation-program set includes actuaries with related postsecondary programs: applied mathematics, computational and applied mathematics, statistics, probability, and actuarial science.

## Occupation-Program Sets (SOC – CIP sets)

Occupations may have a relationship to no academic programs, no academic programs, one academic program or multiple academic programs. Conversely, academic programs have relationships to no jobs, one job, or many jobs. These relationships are continually refined through on-going research.

Occupation (SOC)		Program (CIP)		Occupation-Program Set
Code	Title	Code	Title	Title
31-9091	Dental Assistants			<a href="#">Dental Assistants</a>
		51.0601	Dental Assisting/Assistant	<a href="#">Dental Assistants</a>

## Data Tables

Once you click the Occupation-Program Set link, a webpage opens showing a data table and other information. At the top of the page are links to export, view a graph of completer trends through time (4 years) or print. On the bottom of the page is a link to the Career Profile published by CAREERwise Education.

### Occupation-Program Set: **Dental Assistants**

This occupation-program set includes dental assistants and a related postsecondary program: dental assisting/assistant.

[Export Demand Data to Excel](#) | 
 [Export Supply Data to Excel](#) | 
 [Graph Graduates](#) | 
 [Print Page](#)

#### Career Profiles

Visit ISEEK.org for additional information about the occupations' skill, licensure, and certification requirements; tools and technology used on the job; and more:

- [Dental Assistants](#)

## Demand, Supply, and Data Report Tabs

The data report tab allows you to download a guide to help you through the process of interpreting labor market information and drawing conclusions about market conditions that may indicate program need.

<a href="#">Step 1: Demand Indicators</a>	<a href="#">Step 2: Supply Indicators</a>	<a href="#">Step 3: Data Report Guide</a>
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## Demand Indicators

Data presented includes: Region(s) selected, SOC code, SOC title, Employment, Projected Annual Openings, Projected Growth, Current Demand, Median Wage and Entry-Level Education.

<a href="#">Step 1: Demand Indicators</a>		<a href="#">Step 2: Supply Indicators</a>		<a href="#">Step 3: Data Report Guide</a>		<a href="#">Start a new search</a>		
Region <sup>▲</sup>	SOC Code	Occupation (SOC) Title	Employment <sup>?</sup>	Projected Annual Openings <sup>?</sup>	Projected Growth <sup>?</sup>	Current Demand <sup>?</sup>	Median Wage <sup>?</sup>	Entry-Level Education <sup>?</sup>
Statewide	31-9091	Dental Assistants	5,210	214	Above statewide average	★★★★☆	\$20.68	College certificate

Click on the  to see definitions.

<a href="#">Projected Annual Openings</a> 	<a href="#">Projected Growth</a> 	<a href="#">Current Demand</a> 	<a href="#">Median Wage</a> 	<a href="#">Entry-Level Education</a> 
<div style="border: 1px solid black; padding: 5px;"> <p><b>Projected Annual Openings</b> <span style="float: right;">x</span></p> <p>A measure of future demand, based on ten-year occupational projections calculated by the Minnesota Department of Employment and Economic Development. This number includes openings due to both growth and the need to replace workers who leave the field.</p> <p>N/A indicates data are not available. Data can be unavailable due to a high sampling error, a small sample size, a new occupation or program code where insufficient data prevents reporting, or other data-related reasons.</p> </div>				

## Supply Indicators

Data presented includes: Region(s) selected, CIP code, CIP (program) title, length of programs completed during the most recent data published by IPEDs. To see and download the trend of graduates, click on the "[Graph Graduates](#)" link on the top of the page.

[Start a new search](#)

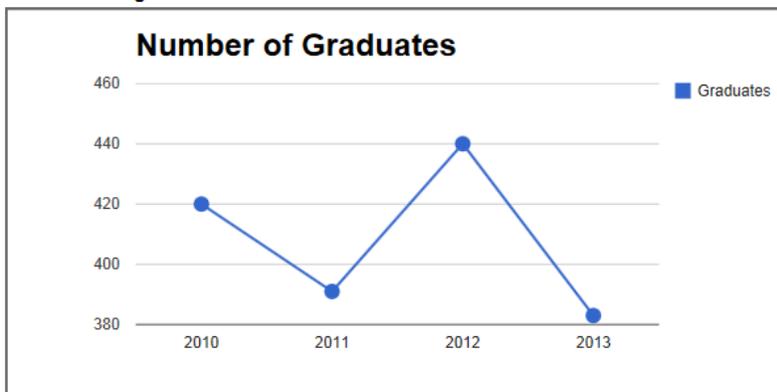
Step 1: Demand Indicators		Step 2: Supply Indicators		Step 3: Data Report Guide					
<b>Graduates by Award Level 2012-2013</b> 									
Region 	CIP Code	Program Title	Up to 1 Year 	Over 1 & Under 4 Years 	4 Years 	Graduate Level 	TOTAL	Schools Offering This Program	
Statewide	51.0601	Dental Assisting/Assistant	0	383	0	0	383	<a href="#">View 13 schools</a>	

## Dental Assistants Program Graduates Graph

 [Print Graph](#)

[Go Back](#)

Statewide Program Graduates at All Award Levels



**Programs (CIPs):**

- Dental Assisting/Assistant

**Region:**

- Minnesota

## Data Interpretation Guide

It is recommended that program planners take time now, in preparation for future work, to review material about data interpretation in the Data Interpretation Guide:

<http://www.careerwise.mnscu.edu/iseek/static/LMIwise-Data-Interpretation-Guide.pdf>

## Selecting a Region

After selecting an Occupation-Program set you have the option to refine the region(s) from which Supply data is filtered. Statewide supply data for Minnesota is always presented. You may also select to see Minnesota and neighboring state supply data by region. The LMIwise tool does not, at this time, provide demand data for surrounding states.

The “Change region” link provides options for regions in Minnesota and also statewide/regional data from: North Dakota, South Dakota, Iowa and Wisconsin. A new table is presented when you choose your region(s) and click the [Select Regions](#) button.

Your Region: **Statewide**

[Change region](#)

Step 1: Demand Indicators

Region ^	SOC Code
Statewide	31-9091

**Select Regions**

**North Dakota (Supply Data Only)**

- Northeast, ND
- Southeast, ND
- Southeast Central, ND
- Northeast Central, ND
- West, ND

**South Dakota (Supply Data Only)**

- East, SD
- West, SD

**Iowa (Supply Data Only)**

- Northeast, IA
- Northwest, IA
- South Central, IA
- Southeast, IA
- Southwest, IA

**Wisconsin (Supply Data Only)**

- North, WI
- Northeast, WI
- South, WI
- Southwest, WI
- West, WI

**Minnesota**

- Minnesota
- Northeast, MN
- Northwest, MN
- Central, MN
- 7-County Metro, MN
- Southeast, MN
- Southwest, MN

The **Demand** tab will show only Minnesota data.

[Start a new search](#)

Step 1: Demand Indicators		Step 2: Supply Indicators		Step 3: Data Report Guide				
Region ^	SOC Code	Occupation (SOC) Title	Employment ?	Projected Annual Openings ?	Projected Growth ?	Current Demand ?	Median Wage ?	Entry-Level Education ?
Central	31-9091	Dental Assistants	750	26	Above statewide average	★★★★☆	\$21.15	College certificate
Metro	31-9091	Dental Assistants	2,970	122	Above statewide average	★★★★☆	\$21.05	College certificate
Northeast	31-9091	Dental Assistants	280	9	Average	★★★★☆	\$17.60	College certificate
Northwest	31-9091	Dental Assistants	90	21	Above statewide average	★★★★☆	\$18.02	College certificate

The **Supply** tab will show data from regions and states you've selected, unless there are no academic programs in those areas.

[Start a new search](#)

Step 1: Demand Indicators		Step 2: Supply Indicators		Step 3: Data Report Guide				
<b>Graduates by Award Level 2012-2013 ?</b>								
Region ^	CIP Code	Program Title	Up to 1 Year ?	Over 1 & Under 4 Years ?	4 Years ?	Graduate Level ?	TOTAL	Schools Offering This Program
Central, MN	51.0601	Dental Assisting/Assistant	0	21	0	0	21	<a href="#">View 1 schools</a>
Metro, MN	51.0601	Dental Assisting/Assistant	0	226	0	0	226	<a href="#">View 5 schools</a>
Northeast, IA	51.0601	Dental Assisting/Assistant	0	12	0	0	12	<a href="#">View 1 schools</a>
Northeast, MN	51.0601	Dental Assisting/Assistant	0	17	0	0	17	<a href="#">View 1 schools</a>
Northwest, MN	51.0601	Dental Assisting/Assistant	0	70	0	0	70	<a href="#">View 3 schools</a>
Southeast, MN	51.0601	Dental Assisting/Assistant	0	17	0	0	17	<a href="#">View 1 schools</a>
Southwest, MN	51.0601	Dental Assisting/Assistant	0	32	0	0	32	<a href="#">View 2 schools</a>
Statewide	51.0601	Dental Assisting/Assistant	0	383	0	0	383	<a href="#">View 13 schools</a>

Click on the “Schools Offering this Program” link to see which colleges/universities offer the program.

Graduates by Institution 2012-2013						
51.0601: Dental Assisting/Assistant						
Region	Institution Name	Up to 1 Year	Over 1 & Under 4 Years	4 Years	Graduate Level	TOTAL
Northeast, IA	Northeast Iowa Community College-Calmar	0	12	0	0	12

## Data Interpretation

Interpreting the data provided by this or any other tool is critical. Only through a comprehensive analysis of data will you be able to make a strong and defensible argument to pursue a new program or move in a different direction.

It is important to read and critically consider the definitions and limitations of the data. Resist taking information at face value. For example, designation as a “5 star” occupation in the Current Demand column does not necessarily indicate a need for a new academic program offering. Many factors must be considered comprehensively to document the need for a new program. Additional information to help you to interpret the data is found in the Data Report Guide, which you can download using the third tab.

Step 1: Demand Indicators

Step 2: Supply Indicators

Step 3: Data Report Guide

[Start a new search](#)

Once you've reviewed the demand and supply data for your occupation-program set, the next step is interpretation. LMIwise users who are making strategic decisions about right-sizing existing programs, launching new programs, or exploring regional needs can use the document below for this interpretation.

The button below will open a Word document. Please save the file to your desktop or external device to save your document as you work.

Download Data & Interpretation Guide

### DEFINITIONS

#### AWARD LEVEL CATEGORIES.

Award level categories are as follows:

- up to 1 Year: includes sub-baccalaureate degrees of less than one year;
- over 1 & Under 4: includes sub-baccalaureate awards of at least 1, but less than 2 academic years; and associate degrees;
- 4 Years: includes bachelor's degrees;
- graduate level: awards include master's degrees, post-master's graduate certificates, and doctoral degrees.

#### CAREER CLUSTER OR CAREER PATHWAY.

Sixteen career clusters and their related pathways have been developed by the National Career Clusters Framework. Each career cluster represents a distinct grouping of occupations and industries based on the knowledge and skills they require.

#### CURRENT DEMAND.

Based on the "Occupations in Demand" (OID) indicator, this is a composite measure of current demand based on job vacancies, employment size, and unemployment in the occupation.

#### EMPLOYMENT.

Employment estimates are based on a semi-annual survey of Minnesota employers. This data covers full- and part-time paid workers who are paid a wage or salary, workers on paid leave, workers temporarily assigned to other units, paid owners, officers, and staff of incorporated firms. Self-employed, contract workers, unpaid family workers, and workers on unpaid leave are excluded.

#### ENTRY-LEVEL EDUCATION.

Based on estimates from the U.S. Bureau of Labor Statistics, entry-level education conveys the minimum level of education needed to qualify for an occupation. Minnesota's minimum education level may differ somewhat.

#### MEDIAN WAGE.

Wages are based on a semi-annual survey of Minnesota employers. The employment data covers full- or part-time paid workers who are paid a wage or salary, workers on paid leave, workers temporarily assigned to other units, paid owners, officers, and staff of incorporated firms. Self-employed, contract workers, unpaid family workers, and workers on unpaid leave are excluded.

#### OCCUPATION NAME OR SOC CODE.

The list of occupations comes from the U.S. Department of Labor's [Standard Occupational Classification](#) system. There are 840 occupations spanning all types of work activities. Each occupation has a six digit code, title, and definition. For example, 29-1141 is the code for Registered Nurse.

#### OCCUPATION-PROGRAM SETS.

Defined groups of occupations and programs sharing supply. Often, one program is associated with one occupation (e.g., dental hygienists). Sometimes supply for one occupation may be provided by several educational programs, and other times multiple educational programs supply multiple occupations.

#### PROGRAM GRADUATES.

Program graduates are counts of people who have completed these programs during recent academic years. The data comes from the national Integrated Postsecondary Education System. Data for Universities of Capella, Walden and Phoenix have been removed because they report their nationwide data at their Minnesota corporate headquarters.

#### PROGRAM NAME OR CIP CODE.

The list of programs comes from the [Classification of Instructional Programs](#) through the U.S. Department of Education. Each of the approximately 1,600 programs has a six digit code, a title, and a definition. For example, 51.0602 is the code for Dental Hygiene/Hygienist.

#### PROJECTED ANNUAL OPENINGS.

A measure of future demand, based on ten-year occupational projections calculated by the Minnesota Department of Employment and Economic Development. This number includes openings due to both growth and the need to replace workers who leave the field.

#### PROJECTED GROWTH RATE.

A measure of future demand, based on ten-year occupational projections calculated by the Minnesota Department of Employment and Economic Development. This measure compares projected growth in this occupation to the average projected growth.

## LMIwise DATA SOURCES

Data Indicator	Source
Employment and Wages	<p><a href="#">Occupational Employment Statistics</a> is a federal-state program administered by the Bureau of Labor Statistics and state agencies. Employment and wage estimates for 800 occupation classifications come from a semiannual survey of 6,000 employers in Minnesota, drawn from the universe of nonfarm employers covered by the state's unemployment insurance program. Employment estimates are produced annually, while wages are updated quarterly. Both sets of estimates are produced at the state and six regional planning areas.</p> <p>This data source includes full- or part-time paid workers who are paid a wage or salary, workers on paid leave, workers temporarily assigned to other units, paid owners, officers, and staff of incorporated firms. Self-employed, contract workers, unpaid family workers, and workers on unpaid leave are excluded.</p>
Projected Annual Openings and Projected Growth Rates	<p><a href="#">Employment Projections</a> are developed based on a national trend analysis model. Minnesota's industry and occupational mix are accounted for in the development of projections using Minnesota's Current Employment Statistics data and Occupational Employment Statistics staffing pattern data. Projections are compiled for both the state and for six regional planning areas. These 10-year forecasts are updated every other year: state projections in even number years, and regional projections in odd number years.</p>
Current Demand	<p><a href="#">Occupations in Demand</a> list current career opportunities in a region as determined by regularly updated local labor market demand data. The Occupations in ranks occupations based on short-term demand for jobs locally. It is calculated on the basis of the Job Vacancy Survey, Occupational Employment Statistics and unemployment insurance applicant data. Occupations in Demand lists are updated annually.</p>
Entry-Level Education	<p>The level of education is a national indicator of the minimum education that is typically needed for entry into each occupation. This indicator <a href="#">is developed by the U.S. Bureau of Labor Statistics Employment Projections program</a>. Educational requirements may vary within an occupation, and Minnesota's minimal education requirements may differ from national standards.</p>
Program Graduates	<p>The <a href="#">Integrated Postsecondary Education Data System (IPEDS)</a> is a nationwide reporting system for higher education. One of IPEDS' many data streams is a report of the number of program graduates (graduates) by program (CIP code) for each institution. Data reported by December for a prior school year is usually published in the winter/spring about one year following the year of graduation.</p> <p>The number of graduates for a program or institution is reported at the location of the institution's official address. An institution may not be located in your region but some programs may be delivered on campuses that are part of your region. The opposite could also be true. Use your local knowledge to properly interpret IPEDS data in this regard.</p> <p>Phoenix, Walden and Capella are nationwide online institutions but their graduate data are reported at their corporate headquarters in Minnesota.</p> <p>A new program is unlikely to produce graduates during its first years of operation. This situation may under-indicate supply that will eventually be produced by other institutions.</p>

## ADDITIONAL DATA SOURCES

Quantitative data such as the information provided in LMIwise can be greatly enhanced with additional data sources that reflect local, occupational, and/or anecdotal nuances. For example, it may be that the data in LMIwise cannot zero in on the exact region your program serves. Or perhaps local employers are aware of specific trends not reflected in the quantitative findings. The strongest analyses will consider both quantitative data from LMIwise and additional quantitative and qualitative data sources to round out the picture.

### 1. Program Inventories

Use program inventories as a quick method to identify available programs.

One option is to use the interactive MnSCU system inventory, which has numerous filters and reports: <http://www.academicaffairs.mnscu.edu/academicprograms/index.html> (click on “Program Inventory”)

For non-MnSCU institutions, contact an institution directly (or view their website). The Minnesota Office of Higher Education <http://www.ohe.state.mn.us/> (click on licensure and registration) provides lists of institutions that must be licensed or registered in Minnesota.

Which institutions must be licensed?

Private Career School Licensure is required for most private schools and training firms that offer occupational programs below the associate level in Minnesota.

Which institutions must register?

Degree-Granting Institutional Registration is required for most postsecondary institutions that are private institutions, out-of-state public institutions, that grant degrees exclusively at the associate level or above, or use the terms “academy,” “college,” “institute,” or “university” in their names.

As a single data source, view all institutions and their programs using the IPEDS Data Center: <http://nces.ed.gov/ipeds/datacenter/Default.aspx>. This method is described in the student interest handbook mentioned below. See the student interest indicator regarding program inventories or graduates.

### 2. Wanted Analytics

Wanted Analytics and its companion product, Help Wanted Online, are rich sources of data for online job postings, a measure of current occupational demand. Both products require a license to use. Some MnSCU campuses and other organizations have purchased licenses for this product. Pilot tests conducted in 2014 as part of The Itasca Project may lead to broader deployment of Wanted Analytics.

### 3. EMSI

Economic Modeling Specialists, Inc. is a licensed-based tool that allows users to investigate additional supply and demand data based on customized regions and analyses. EMSI also offers consulting services. Pilot tests conducted in 2014 as part of The Itasca Project may lead to broader deployment of EMSI.

#### 4. **DEED**

In 2014 the Minnesota Department of Employment and Economic Development deployed a website <http://mn.gov/deed/data/data-tools/> with information, including:

- Current Monthly Employment (CES)
- Employment Outlook Projections
- Graduate Employment Outcomes
- Job Skills Transfer Assessment Tool
- Job Vacancy Survey (JVS)
- Local Area Unemployment Statistics (LAUS)
- Occupational Staffing Patterns
- Regional Labor Market Data Tool
- Unemployment Insurance Statistics

#### 5. **Student Interest**

Refer to the Student Interest Assessment Handbook for a variety of data collection methods and sources. This is posted on the MnSCU system office academic programs website:

<http://www.academicaffairs.mnscu.edu/academicprograms/index.html> (click: Program Planning)

#### 6. **Graduate Employment Outcomes**

Use this DEED tool to find out how many recent Minnesota graduates found Minnesota jobs one and two years after graduation. It also shows the median wages earned and the top industries where graduates found jobs. You can search by year, location, award type, institution type, and instructional program. Reports will be updated with a new cohort of graduates each year:

<https://apps.deed.state.mn.us/lmi/etd/default.aspx>

#### 7. **Certifications and Apprentices**

Industry credentials employers may expect job seekers to have earned, and identification of fields of study where apprenticeships are expected. [CAREERwise Education](#)

#### 8. **Job Openings**

Employment opportunities in Minnesota [Minnesotaworks.net](http://minnesotaworks.net)

#### 9. **Accrediting Agencies**

Find the name of an accreditation agency. Once identified, you can search for a specific accrediting agency websites to learn more about standards and other information about member institutions and programs.

[U.S. Department of Education](http://www.ed.gov)

#### 10. **Other sources**

Consult professional or industry publications and obtain advice from a related program advisory committee.