



Labor Market Intelligence for Decision Making

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Labor Market Information Office**



Minnesota
Department of Employment and Economic Development

Session overview

- Overview of labor market information
- Current employment trends
 - What is the state of the local economy?
- Online tools for jobseekers
 - Where are the job openings right now?
 - What do occupations in my local area pay?
- Forecasting future trends
 - Where will the job openings be in the future?
- Skills gaps and hiring difficulties
- Target your market
- Other career exploration resources



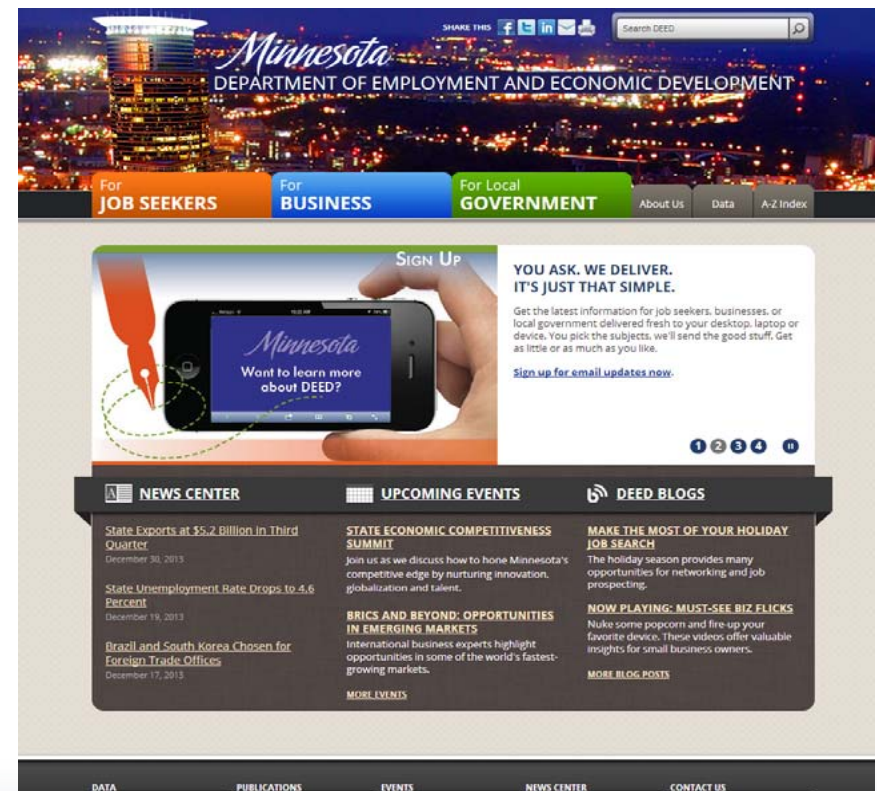
Bureau of Labor Statistics

- Some labor market data collections are federal-state cooperative programs between the Bureau of Labor Statistics (BLS) and state agencies.
 - Employment by industry
 - Labor force, unemployment rates
 - Employment and wages by occupation
 - Employment projections
- Consistent methodologies mean data are comparable across states and metropolitan areas.



Labor Market Information Office

- Each state produces employment and economic statistics in cooperation with U.S. Department of Labor's Bureau of Labor Statistics.
- LMI includes employment statistics, unemployment rates, wages and salaries, job projections and more.
- LMI is the foundation for informed, market-responsive planning.



Meet the Regional Analysis and Outreach Team



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Twin Cities



LUKE GREINER
Central &
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South Central &
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CHET BODIN
Northwest



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Northeast

What is labor market information?

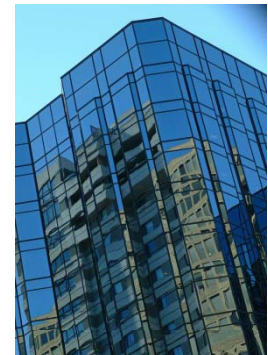
Labor market information is any information about people, work and the job market:

- ❖ Geographic area – where people work
- ❖ Industry or business – who people work for
- ❖ Occupation – what people do
- ❖ Wages – how much they earn

How do we get this information?

From businesses

- There are over 165,000 employers in Minnesota.
- Over 388,000 people are self-employed, own their own micro-business, or work as contractors.



From households

- Minnesota's population is 5.3 million.
- Labor force tops 3 million workers in Minnesota.



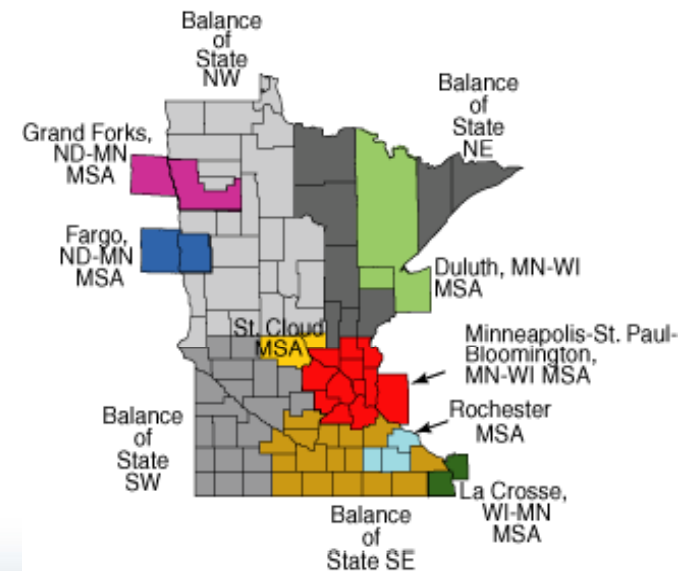
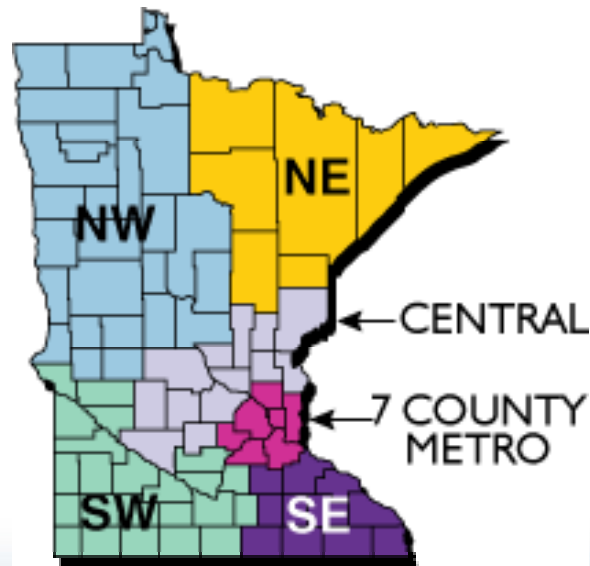
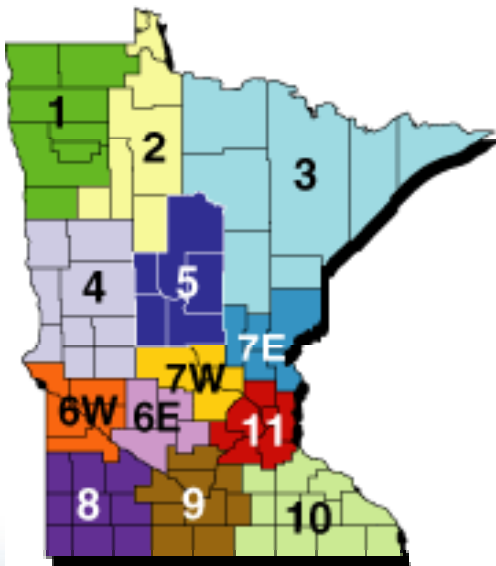
Labor market areas

- Labor market areas include where people live and where they work.
- The labor market is defined as the area in which employers compete for labor.
- Commuting patterns
 - ❖ Labor shed = where local employers find their workers
 - ❖ Commute shed = where area residents commute to

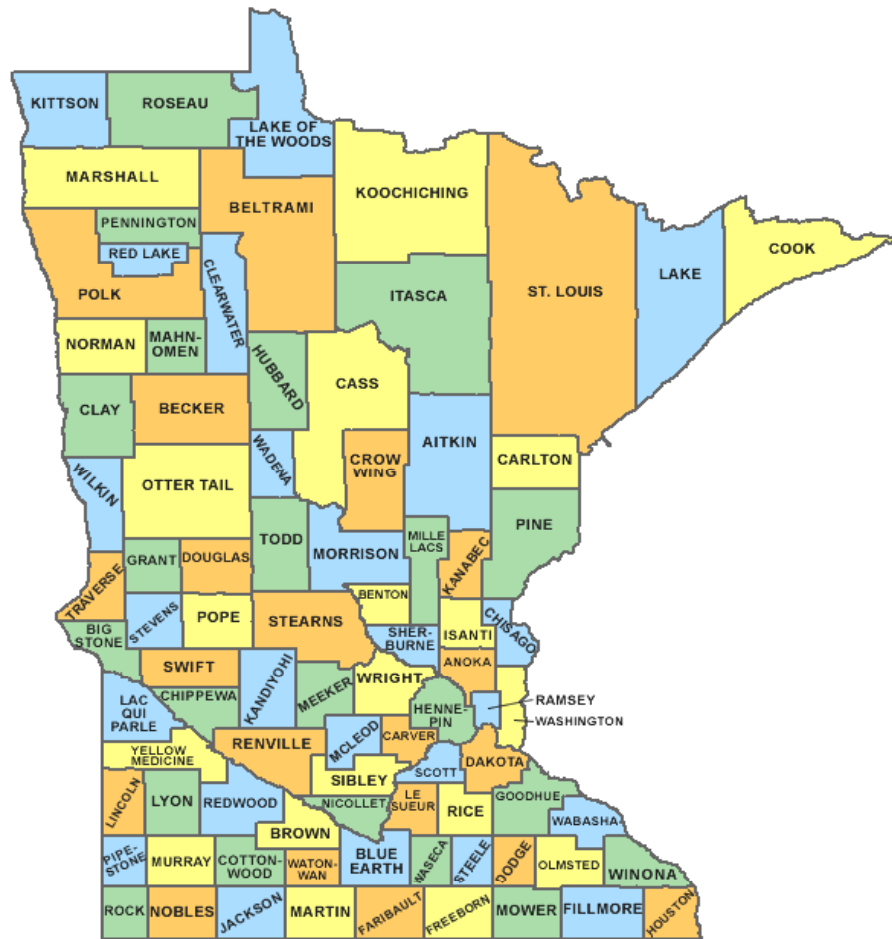


Know your LMI geography

- ❖ Economic Development Regions (EDRs)
- ❖ Planning Regions
- ❖ Metropolitan Statistical Areas (MSAs)



Know your LMI geography





What is the state of the local economy?

Perception vs. Reality

- How many total jobs are in St. Paul?
- What is the largest employing industry in St. Paul?
- Behind retail salespersons, what is the largest employing occupation in the Twin Cities region?

174,400 jobs

Healthcare

Customer
service
representatives

What do the data tell us?

- Employment is growing
 - 41,900 more jobs compared to last April
 - Regained the 159,000 jobs lost during the Great Recession and 26,900 more
 - Private sector jobs recovered nationally in March
- Labor force participation is on the rise
 - Minnesota's labor force surpassed 3 million for the first time
 - 70.6% of the population (age 16+) is engaged in the labor force
 - Labor force growth drives long-term job projections

Current Employment Statistics (CES)

- **Description:** Monthly survey of nonfarm businesses for estimating industry employment, hours and earnings for the 50 states and 250 Metropolitan Statistical Areas.
- **Data source:** The CES program is a federal-state cooperative program between the BLS and state agencies. This program is the largest survey of its kind, consisting of 400,000 businesses nationwide and 5,900 businesses in Minnesota.
- **What it provides:** A look at the health of the economy through industry employment numbers, earnings trends and other data.
- **Data limitations:** Not available for small, local areas, and data are revised monthly and benchmarked annually.

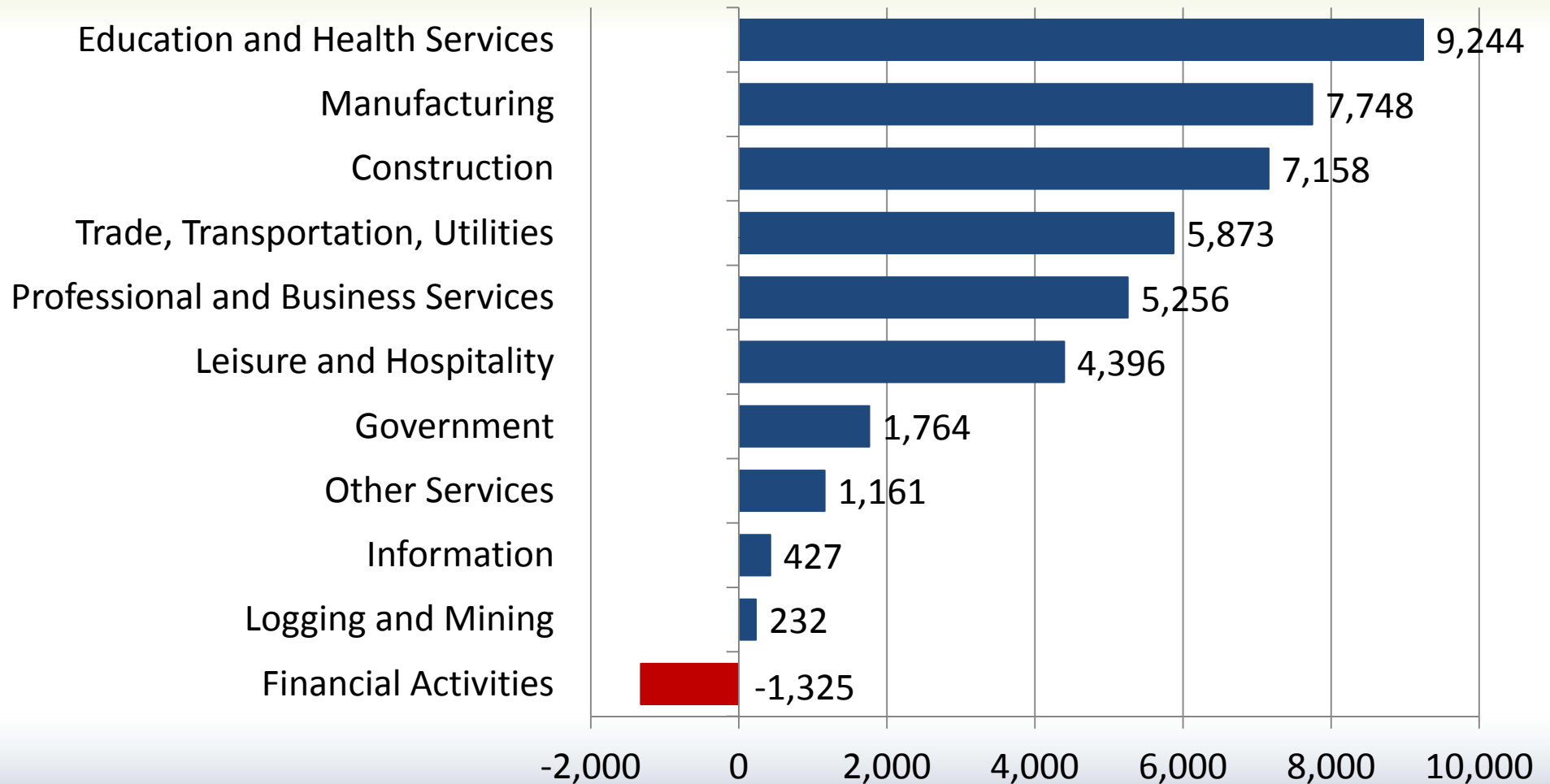
<http://mn.gov/deed/CES>

Regional Trends, April 2014

Metropolitan Statistical Area (MSA)	Numeric Employment Change	Percent Employment Change
Minneapolis-St. Paul MN-WI	28,735	1.6%
Duluth-Superior MN-WI	706	0.5%
Rochester	288	0.3%
St. Cloud	2,906	2.9%
Mankato	1,671	3.1%
Minnesota	41,934	1.5%
United States	2,377,000	1.7%

Data are April 2013 to April 2014.

Minnesota Industry Trends



Data are April 2013 to April 2014.

Quarterly Census of Employment and Wages (QCEW)

- **Description:** Quarterly census of employers for compiling employment and wage statistics. Data are available by industry, ownership type, states, regions, counties and minor civil divisions.
- **Data Source:** All establishments covered under the Unemployment Insurance (UI) program are required to report wage and employment statistics.
- **What it provides:** Industry employment and wage information at the state, regional, county and minor civil division levels. These data are used for state revenue forecasting, employment density studies, and economic planning and development.
- **Data limitations:** Six month time lag and some data confidentiality.

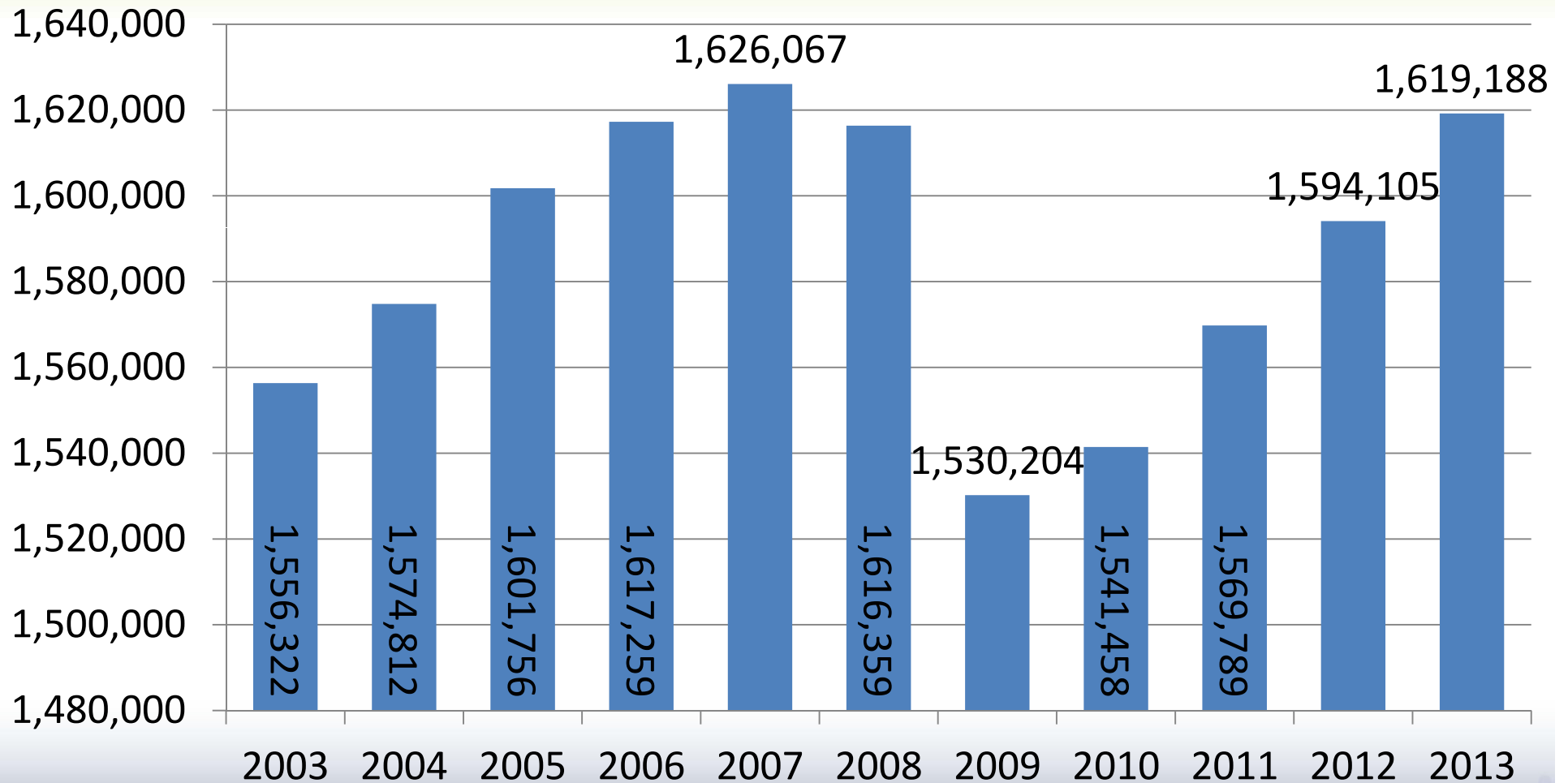
<http://mn.gov/deed/qcew>

How is this useful?

- LMI informs us on the state of the local economy
 - What industry sector's are growing/declining?
 - What are distinguishing industries?
 - What are high growth/high wage industries?
- LMI doesn't give us a potential list of targets
 - Where can you find lists of businesses?
 - ReferenceUSA (need a valid Twin Cities library card)
 - Career OneStop Employer Locator

<http://mn.gov/deed/qcew>

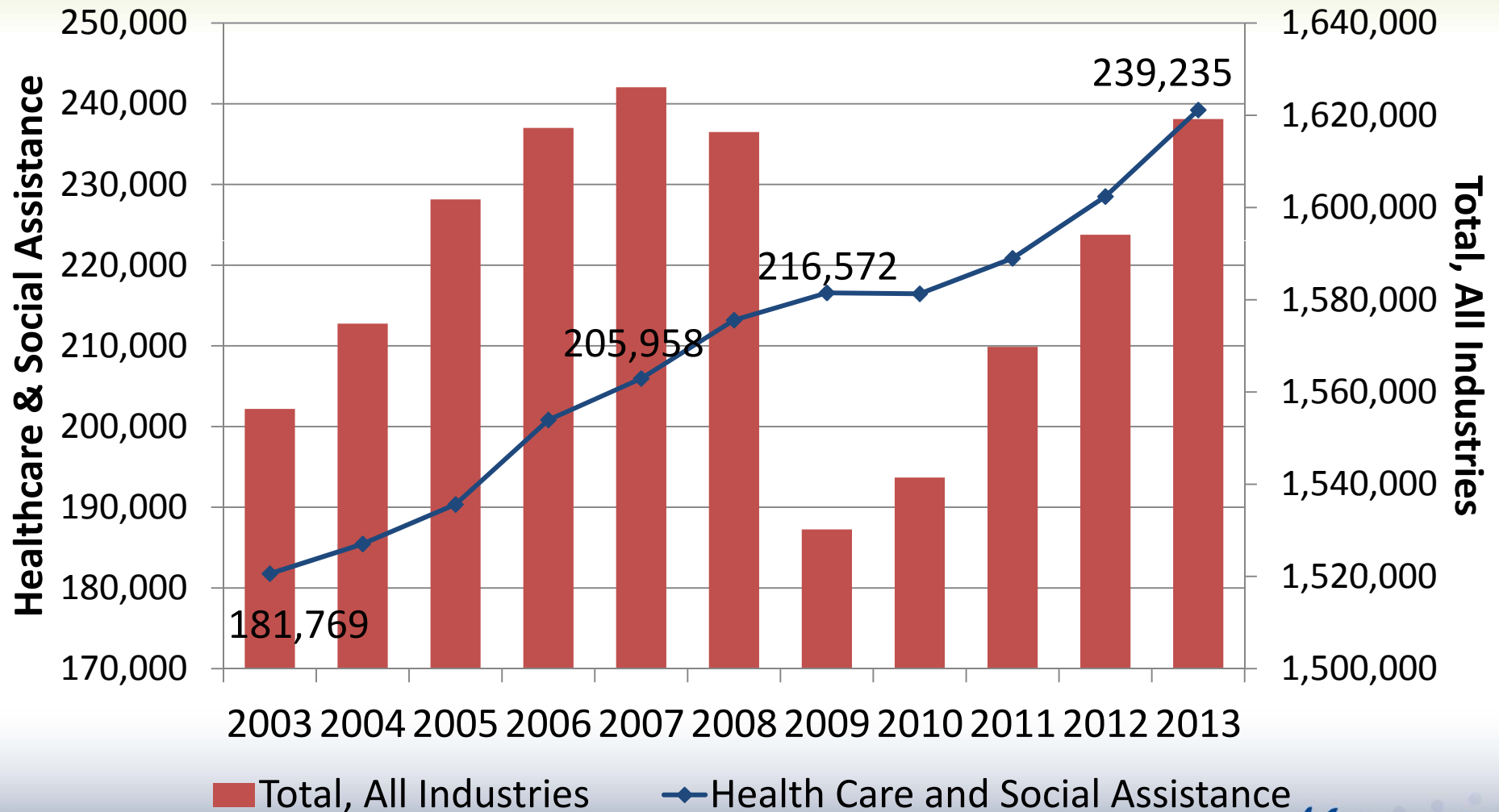
Metro area employment



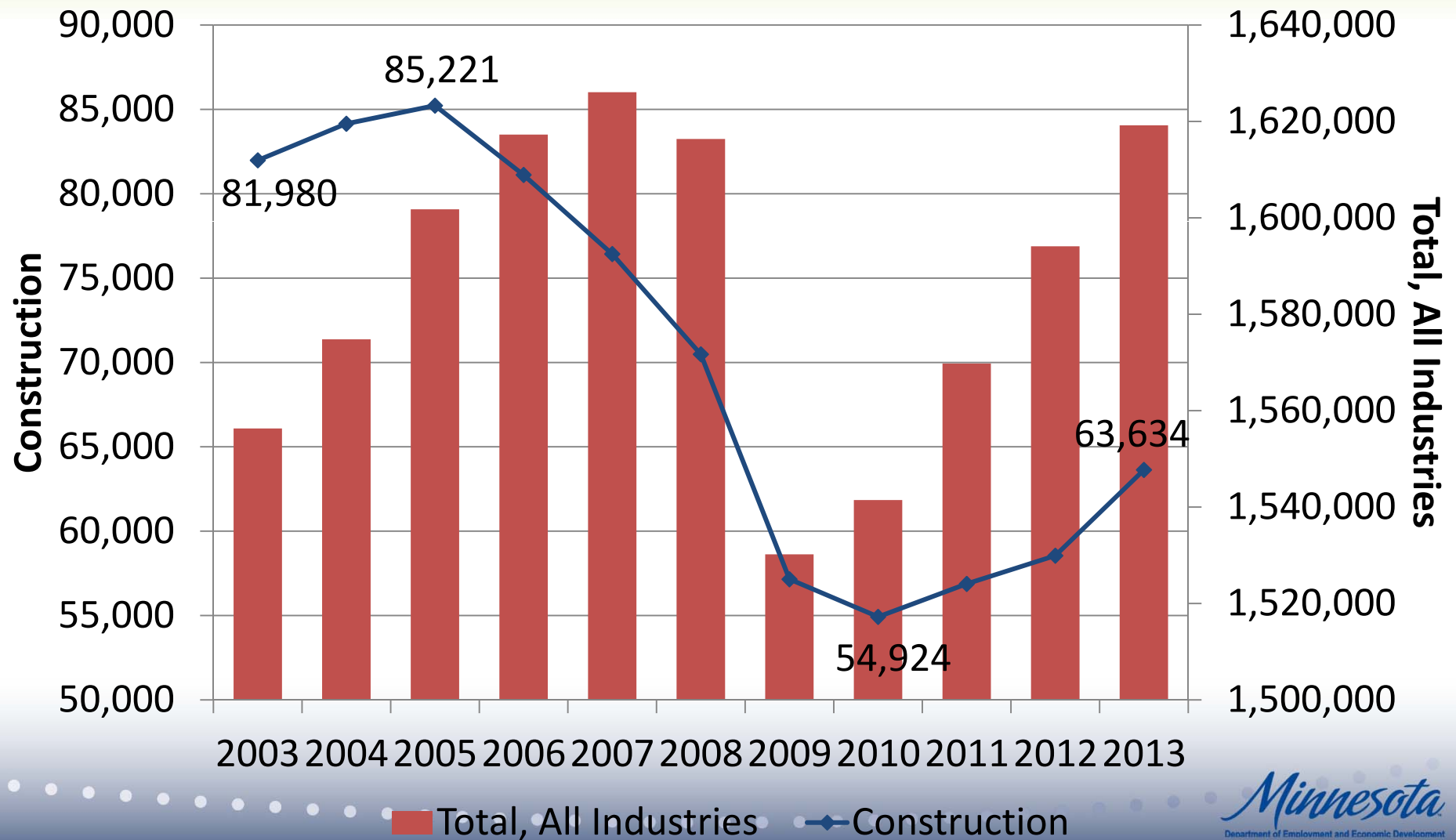
Metro area industry trends

Industry Title	Employment	Firms	Avg. Annual Wage	Q3, 2012 to Q3, 2013	
				Numeric	Percent
Total, All Industries	1,619,188	79,795	\$54,860	25,083	1.6%
Education & Health Services	346,045	9,999	\$45,292	10,506	3.1%
Trade, Transportation, Utilities	302,492	16,357	\$47,684	3,430	1.1%
Professional & Business Services	272,351	15,590	\$73,684	1,732	0.6%
Leisure & Hospitality	164,867	7,051	\$21,632	2,626	1.6%
Manufacturing	163,608	4,106	\$70,824	-56	0.0%
Financial Activities	137,744	8,899	\$80,964	1,128	0.8%
Public Administration	68,957	1,059	\$53,768	726	1.1%
Construction	63,634	6,505	\$61,256	5,084	8.7%
Other Services	54,589	8,455	\$31,928	-259	-0.5%
Information	40,794	1,421	\$69,732	685	1.7%
Natural Resources & Mining	4,043	296	\$39,936	138	3.5%

Health care trends, 2003 – 2013



Construction trends, 2003 – 2013



Metro area in-depth industry trends

Q3, 2009 to Q3, 2013

Largest Growing Industries

- Administrative & Support Services (+13,655)
- Professional, Scientific, & Tech Services (+9,157)
- Ambulatory Health Care Services (+8,325)
- Food Services & Drinking Places (+8,027)
- Management of Companies (+7,342)
- Social Assistance (+5,491)
- Nursing & Residential Care Facilities (+4,929)
- Specialty Trade Contractors (+4,449)
- Real Estate (+4,340)
- Hospitals (+3,918)

Fastest Growing Industries

- Water Transportation (525%)
- Animal Production & Aquaculture (47%)
- Mining (except oil and gas) (35%)
- Private Households (28%)
- Textile Mills (22%)
- Primary Metal Manufacturing (21%)
- Pipeline Transportation (20%)
- Real Estate (20%)
- Apparel Manufacturing (17%)
- Administrative & Support Services (17%)

A note on industries

- LMI categorizes employers using the North American Industrial Classification System (NAICS).
- Each business is assigned one industry code that represents the primary product/service of the business.
- As a rule of thumb, two businesses in the same industries are likely to view each other as competitors.
- Some industries do not exist in this typology, like biotech or green.

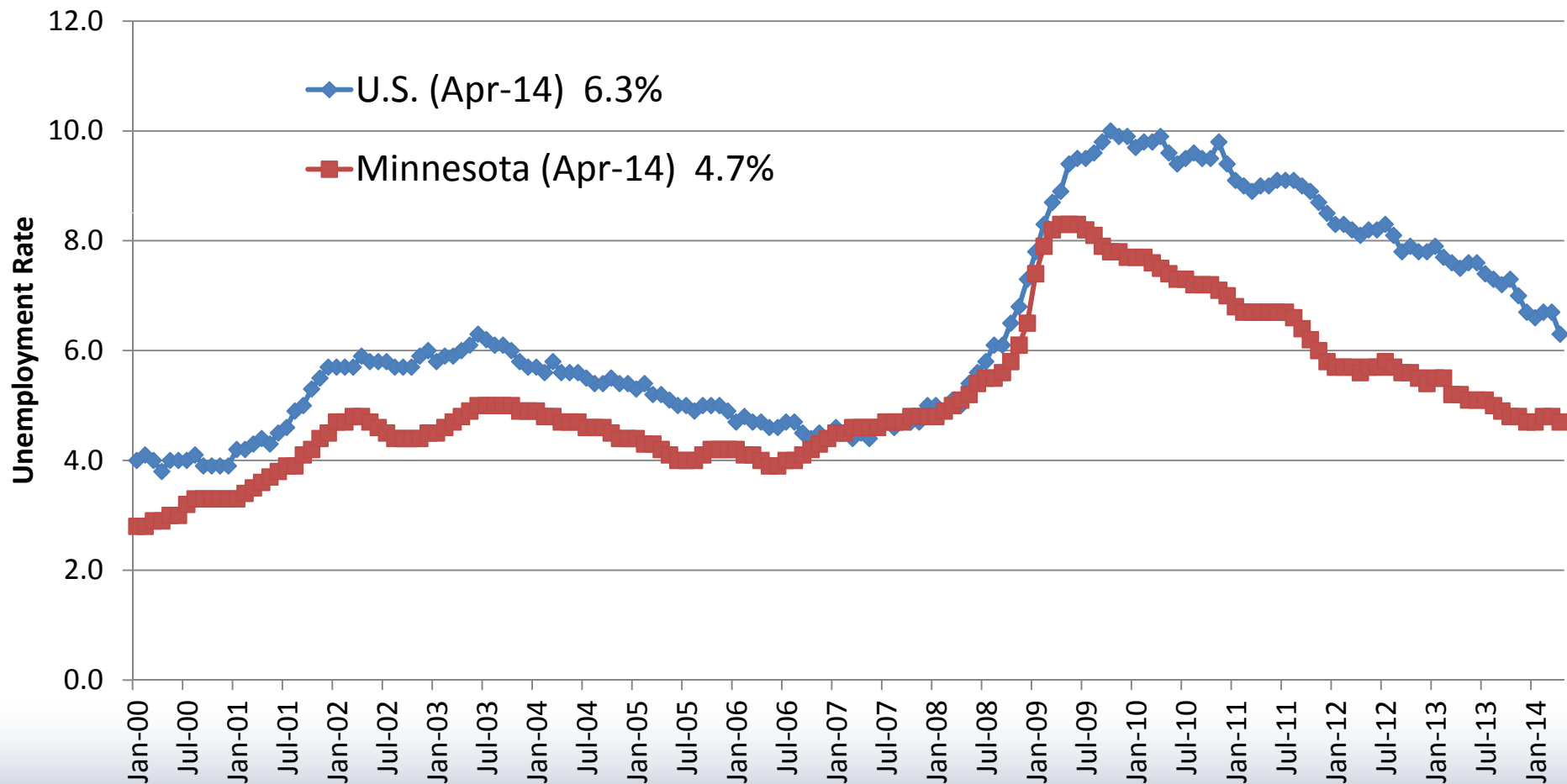
www.census.gov/naics

Local Area Unemployment Statistics (LAUS)

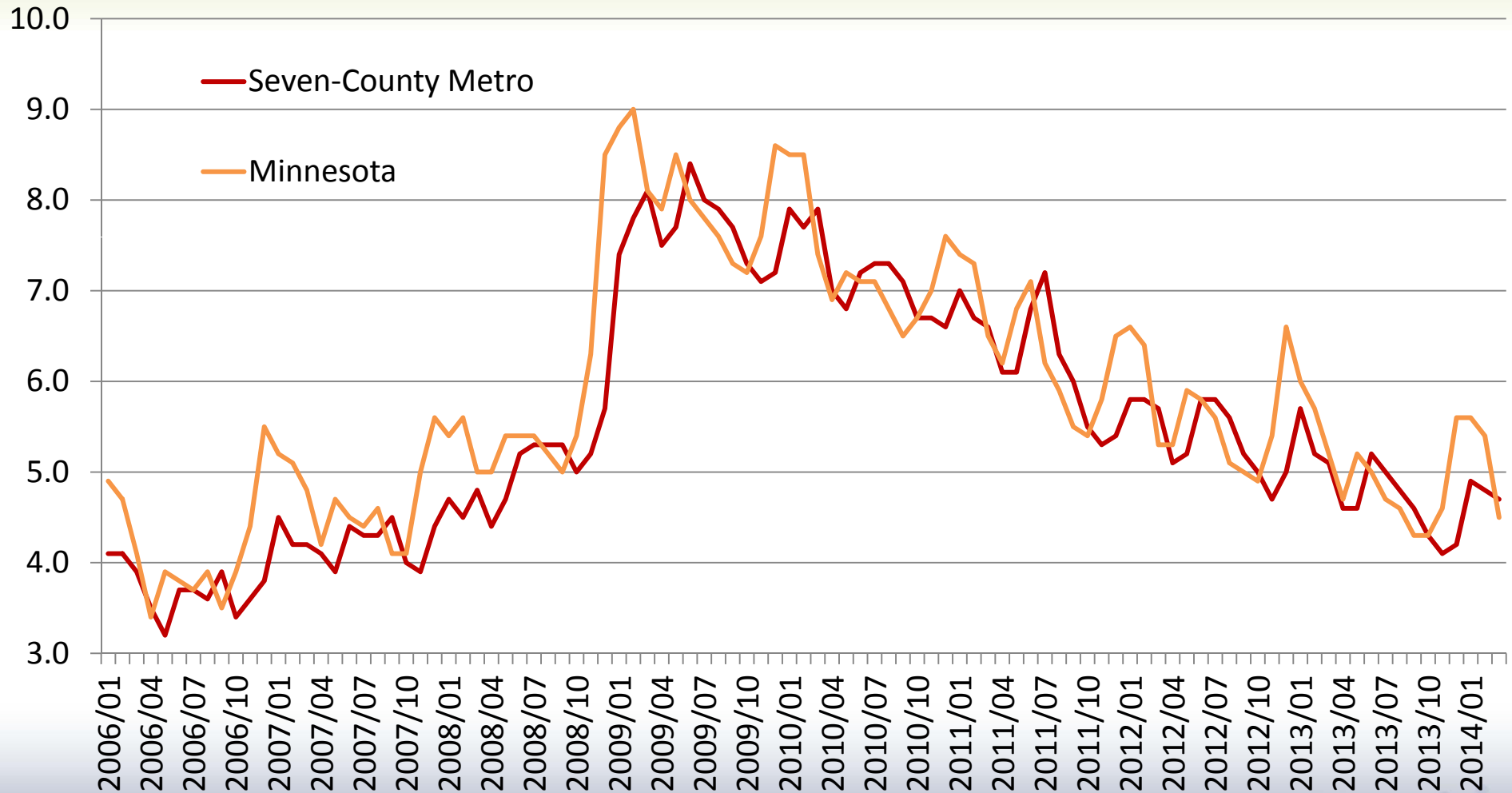
- **Description:** Monthly estimates of labor force, employment and unemployment for state and local areas.
- **Data source:** LAUS is a federal-state cooperative program between the BLS and state agencies. Models use both current and historical data from the CPS, the CES program and the UI statistics program to provide estimates of employment and unemployment.
- **What it provides:** Helps state and local governments make planning and budgetary decision; determines needs for employment and training services.
- **Data limitations:** Not available for small cities, and data are revised monthly and benchmarked annually.

<http://mn.gov/deed/laus>

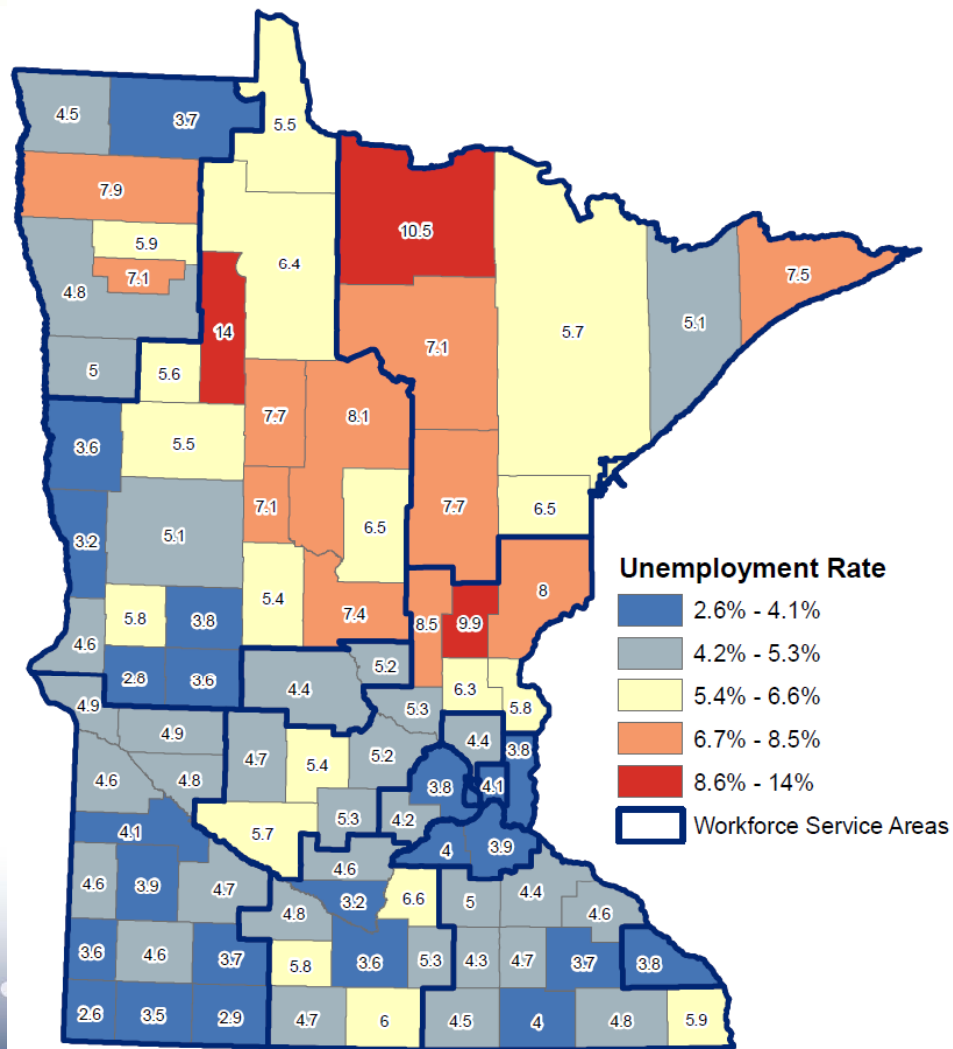
Unemployment rates are low...



Unemployment trends Not seasonally-adjusted



Regional unemployment rates

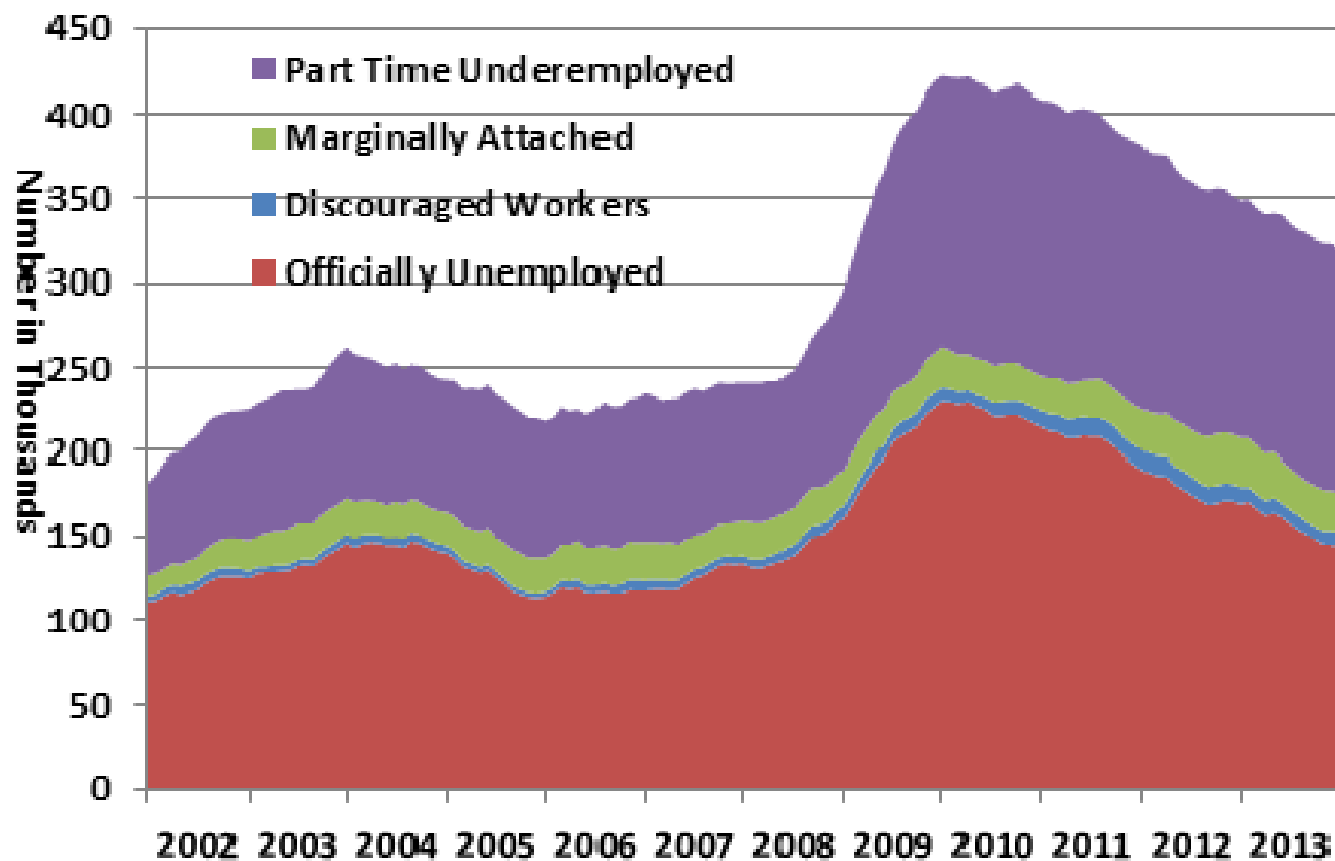


County	April 2014 Unemployment Rate
Anoka	4.4%
Carver	4.2%
Dakota	3.9%
Hennepin	3.8%
Ramsey	4.1%
Scott	4.0%
Washington	3.8%
Metro Area	4.0%
Minnesota	4.5%
Not Seasonally Adjusted	

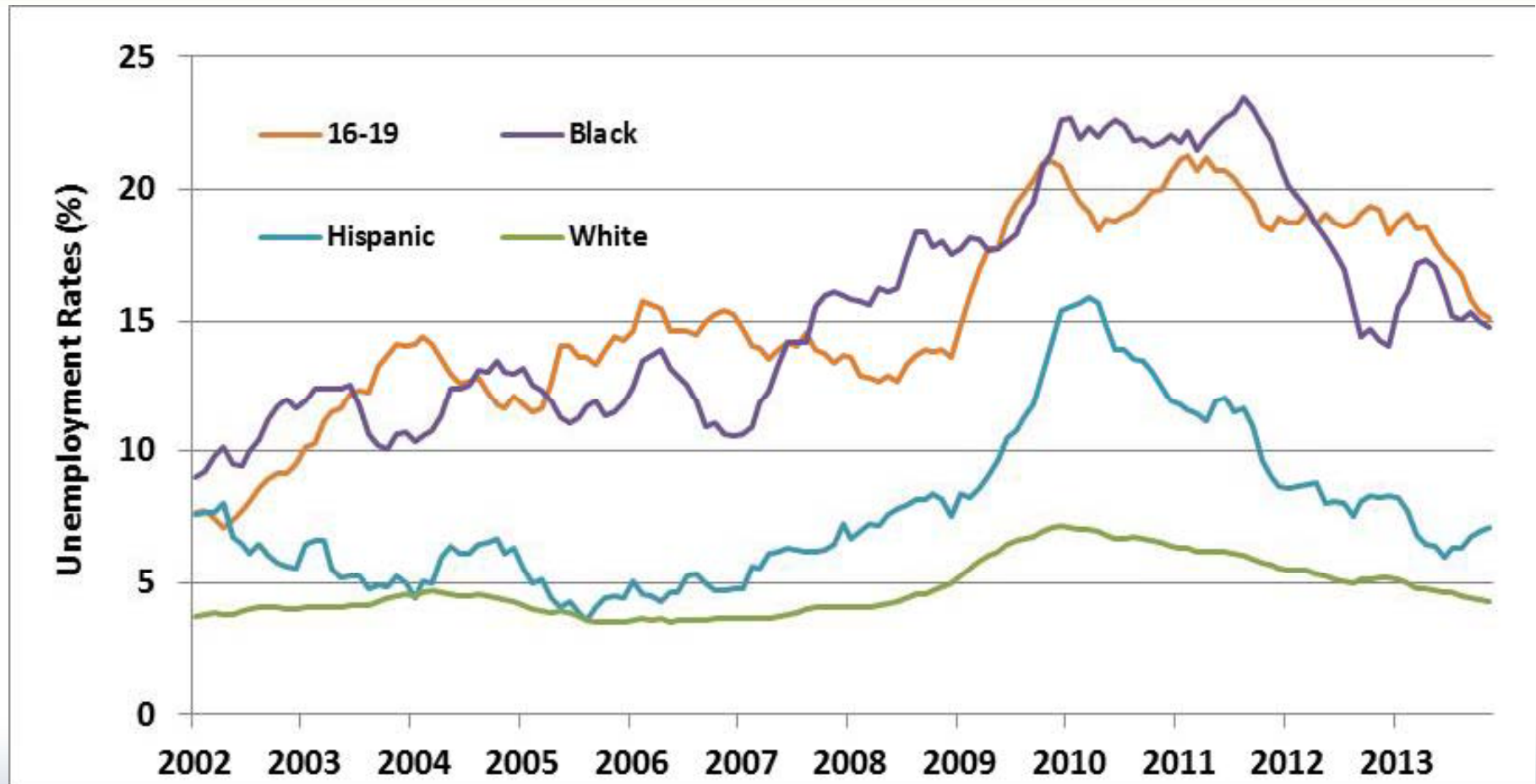
What do unemployment rates measure?

- The unused and available resources in the labor force – in this case, people who want to work, are available to work, and actively seeking work
- Unemployment rates do **not** include people who are not engaged in job-seeking behavior
 - Discouraged job seekers
 - Individuals with a temporary barrier
- A business can't tell us who is unemployed, so we measure unemployment rates through household surveys

Unemployment up-close



Some groups are still struggling



Source: Current Population Survey, 12-month moving averages

Finding more unemployment rates

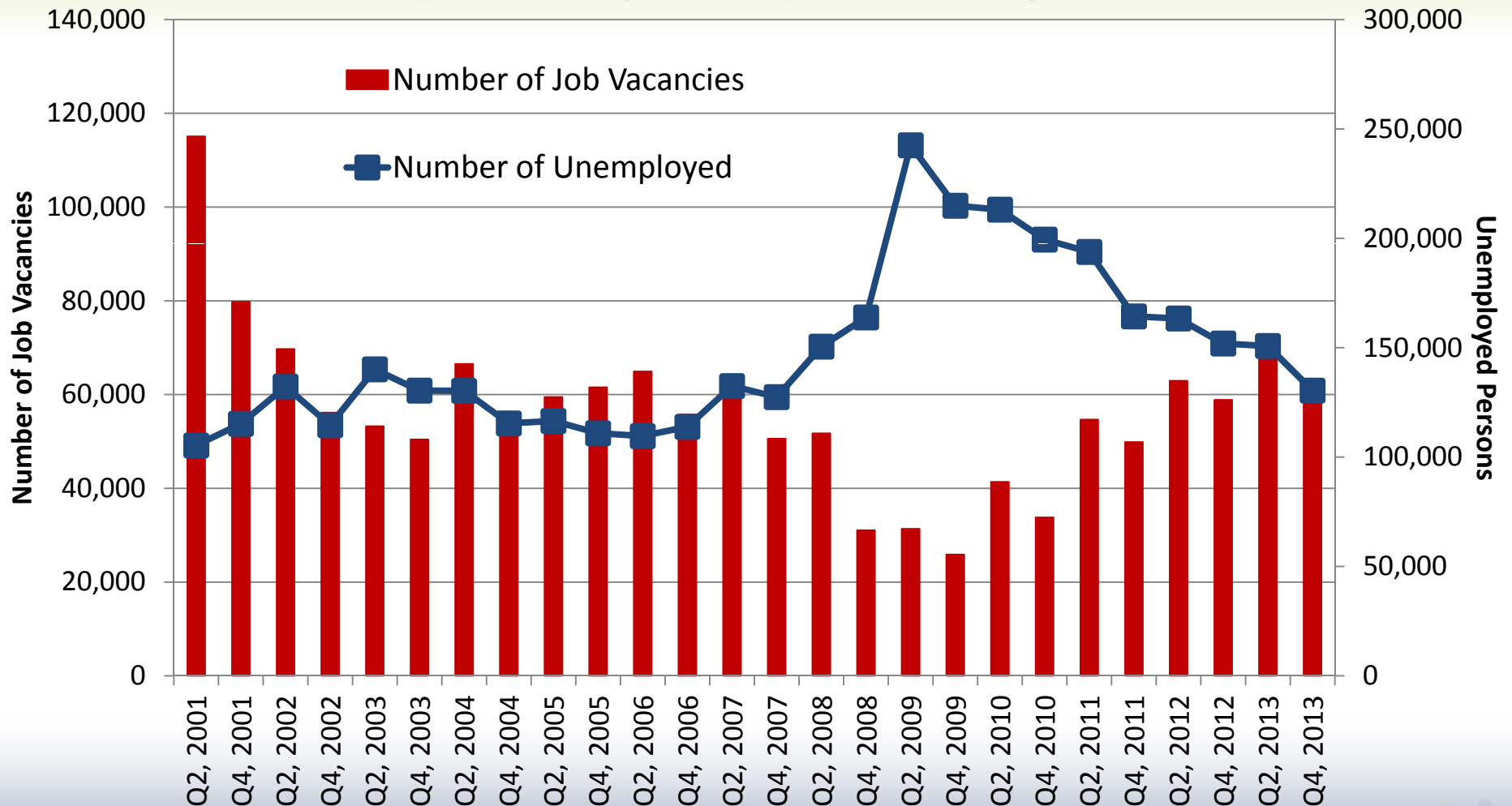
- Employment Situation Report (national, monthly)
 - www.bls.gov
- Geographic Profile of Employment and Unemployment (state, annual)
 - www.bls.gov/gps
- Disability Statistics, Cornell University (state, annual)
 - www.disabilitystatistics.org

Job Vacancy Survey (JVS)

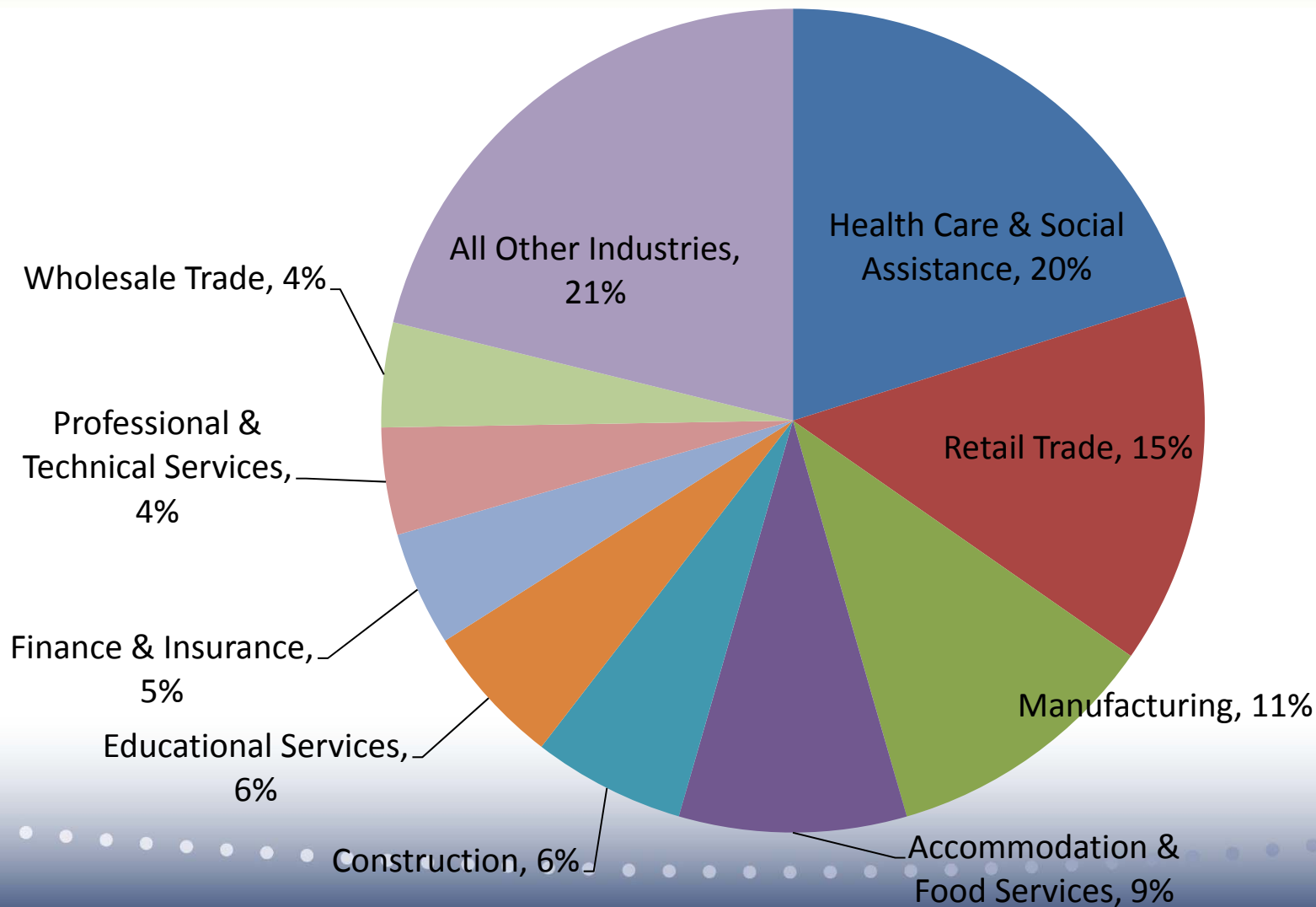
- **Description:** A semi-annual survey of employers to estimate hiring demand and job vacancy characteristics by industry and occupation.
- **Data Source:** Information is gathered through the survey of a stratified sample of about 10,000 firms in 13 regions of Minnesota. Firms excluded include private households, personnel service industry establishments and businesses with no employees.
- **What it provides:** A measure of hiring demand for workers and an analysis of the characteristics of job vacancies, including wages and benefits, education and experience requirements, and the location of openings.
- **Data limitations:** Point-in-time survey.

<http://mn.gov/deed/jvs>

MN: Job openings expanding



MN: Openings by industry



MN: Top 12 occupations with the most openings

- Retail salespersons (2,292)
- Customer Service Representatives (2,204)
- Personal Care Aides (1,766)
- Nursing Assistants (1,702)
- Cashiers (1,693)
- Laborers of Freight, Stock, and Material Movers, Hand (1,615)
- Combined Food Prep & Serving Workers (1,473)
- Registered Nurses (1,468)
- Construction Laborers (1,406)
- LPNs (1,204)
- Heavy and Tractor-Trailer Truck Drivers (1,196)
- Stock Clerks & Order Fillers (1,027)

- 12 occupations above represent 32 percent of total openings in MN



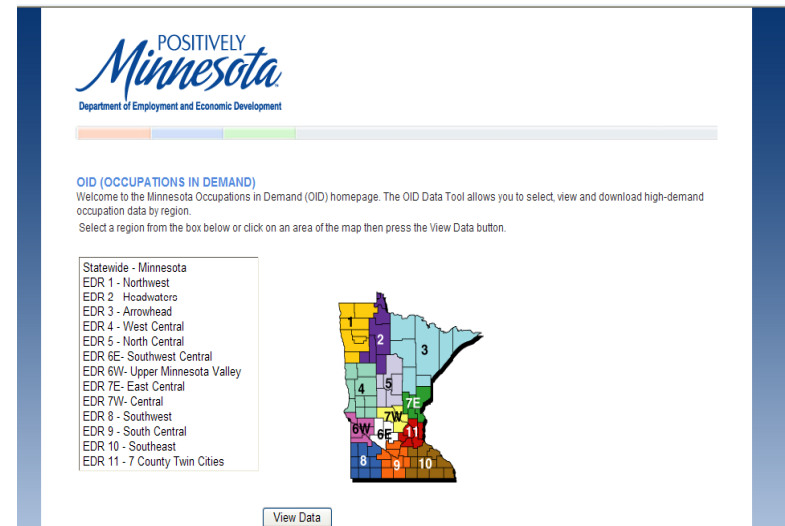
Online tools for job seekers

Online tools for jobseekers

- Three labor market information tools:
 - Know what's in demand now
<http://mn.gov/deed/oid>
 - Know how your skills transfer to other jobs
<http://mn.gov/deed/jobstat>
 - Know how much your job pays
<http://mn.gov/deed/oes>

Occupations in Demand (OID)

- Lists of currently available career opportunities in a local labor market as determined by local labor market data.
- Regional occupations are ranked by a Current Demand Indicator, which measures short-term demand for jobs.
- Data updated twice a year.



<http://mn.gov/deed/oid>

Occupations in Demand (OID)

- There are 13 EDRs and 6 planning regions in the state. A high number of **job vacancies** in either geography will increase the occupation's demand score.
- A **high number of jobs** in a given region increases the demand score for that occupation.
- A high number of UI weeks claimed by workers who have been permanently separated from their employers in the region will reduce the demand score because it indicates **re-employment difficulty** in the field.
- A high share of vacancies that are reported as temporary will tend to pull the score down because it indicates **seasonality** and/or the predominance of short-term job opportunities in the field.

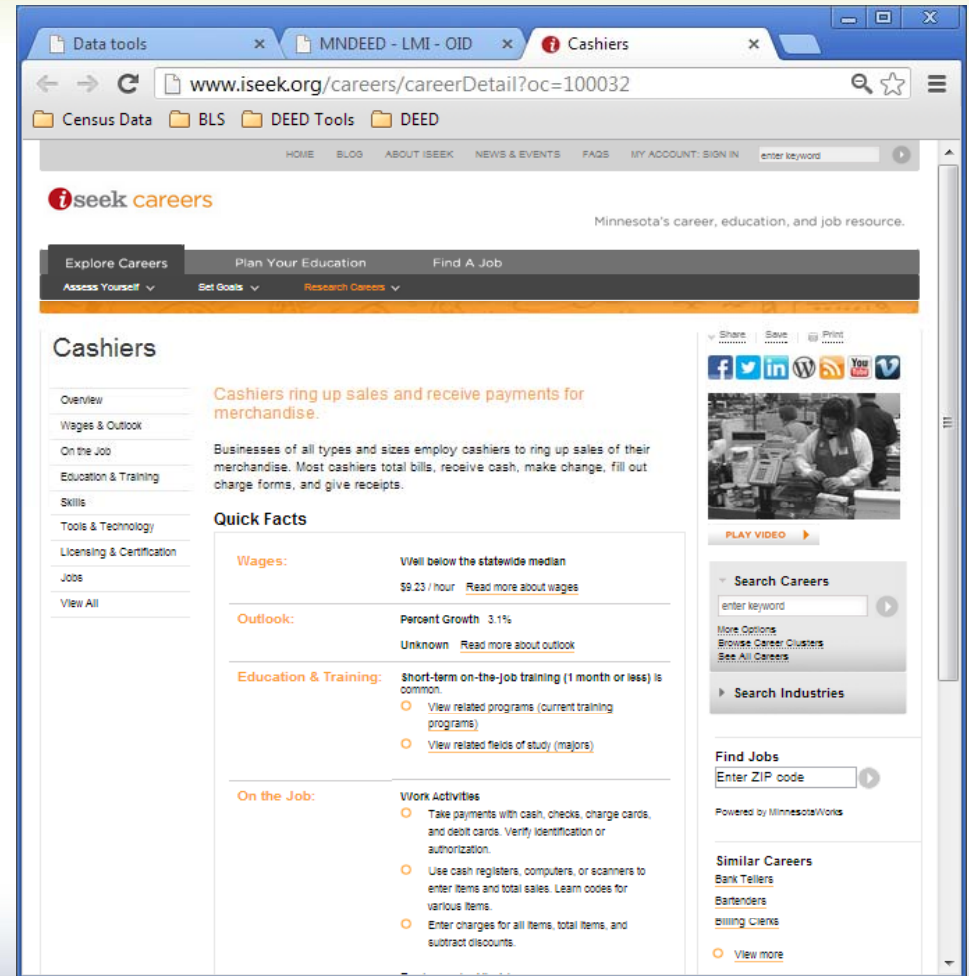
<http://mn.gov/deed/oid>

Metro region jobs in demand by educational level

Some College and High School or Equivalent	Post-Secondary Award and Associate's Degree	Bachelor's Degree
Customer Service Representatives (\$36,959)	LPNs (\$43,900)	Registered Nurses (\$74,170)
Computer User Support Specialists (\$50,883)	Hairdressers, Stylists, and Cosmetologists (\$24,051)	Software Developers, Applications (\$93,694)
Office Clerks, General (\$31,696)	First-Line Supervisors of Production and Operating Workers (\$57,999)	Computer Systems Analysts (\$79,896)
Heavy and Tractor-Trailer Truck Drivers (\$46,375)	Electrical and Electronics Drafters (\$54,409)	Accountants and Auditors (\$62,722)
Social and Human Service Assistants (\$29,508)	Diagnostic Medical Sonographers (\$74,461)	Market Research Analysts (\$66,562)
Secretaries and Administrative Assistants (\$39,958)	Surgical Technologists (\$51,323)	Financial Managers (\$113,678)

Using OID - ISEEK

- Job title is a link to the occupational description page on ISEEK.
 - Overview
 - Wages & Outlook
 - On the Job
 - Education & Training Skills
 - Tools & Technology
 - Licensing & Certificates
 - Jobs
 - View All
 - Other Similar Careers
 - Related Industries
 - Video Descriptions



Job Skills Transfer Assessment Tool (JobSTAT)

- Help job seekers explore occupations that are a good match to their previous work experience.
- JobSTAT identifies where gaps exist, offers a career profile, training information, and provides links to job postings on MinnesotaWorks.



OCCUPATION ANALYZER

Use this tool to find occupations that are a good match for you based on your work experience. Find out how your skills, knowledge and abilities can transfer to these careers and where your gaps might be.

Start by selecting your current or previous occupation.

Search for an occupation

Or, browse the list of occupations

Click on "*" to see all of the occupations in the group.

Mouse over the title to read the occupational description.

- ▣ Architecture and Engineering Occupations
- ▣ Arts, Design, Entertainment, Sports, and Media Occupations
- ▣ Building and Grounds Cleaning and Maintenance Occupations
- ▣ Business and Financial Operations Occupations
- ▣ Community and Social Services Occupations
- ▣ Computer and Mathematical Occupations

<http://mn.gov/deed/jobstat>



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- 2 We'll find careers with similar skills.
- 3 Pick a career and explore!

Build a bridge to your new career.

Enter your current or past job.

**FIND MY
CAREER MATCHES**



 Watch Help Video

 Tell Us What You Think

 New to the Workforce?
Go to **MY NEXT MOVE**

www.MySkillsMyFuture.org

Occupational Employment Statistics (OES)

- **Description:** A semi-annual survey designed to produce employment and wage estimates for about 800 occupation classifications. Comparable statistics are available in every area, Metropolitan Statistical Areas and substate regions.
- **Data Source:** OES is a federal-state cooperative program between the BLS and state agencies. OES samples 6,000 employers in Minnesota, drawn from the universe of non-farm employers covered by the UI program.
- **What it provides:** Employment, average wage and wage distribution estimates (10th, 25th, 75th, 50th, and 90th percentiles) by occupation. Wages are updated quarterly in Minnesota.
- **Data limitations:** Not a time series.

<http://mn.gov/deed/oes>

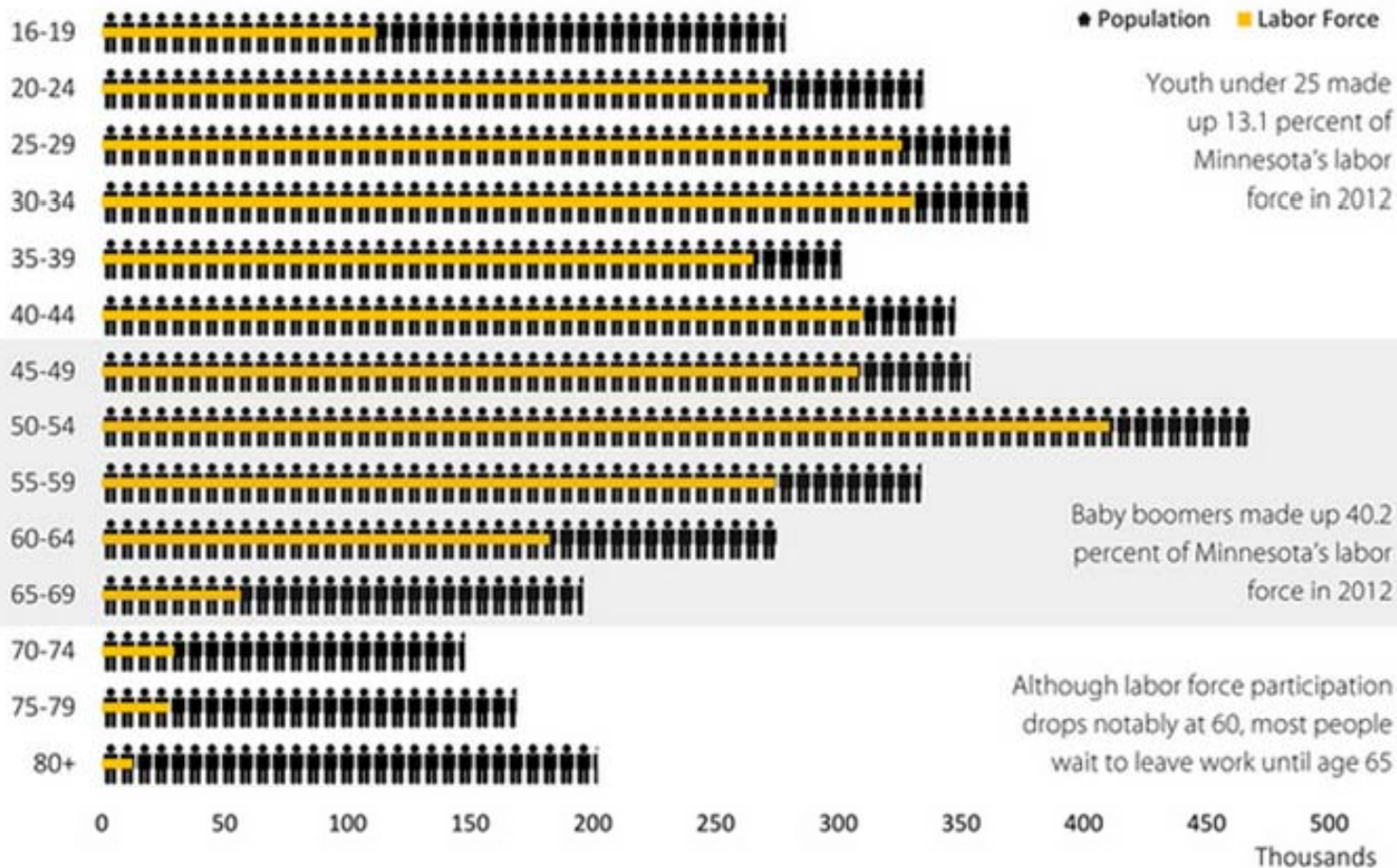
A note on occupations

- LMI categorizes jobs using the Standard Occupational Classification (SOC) system.
- Each occupation is assigned one occupation code that represents the primary function of the job.
- There are about 800-nationally defined job titles.
- Some occupations do not exist in this typology, like project manager.

www.bls.gov/soc



Forecasting future trends



Age and Labor Force Participation

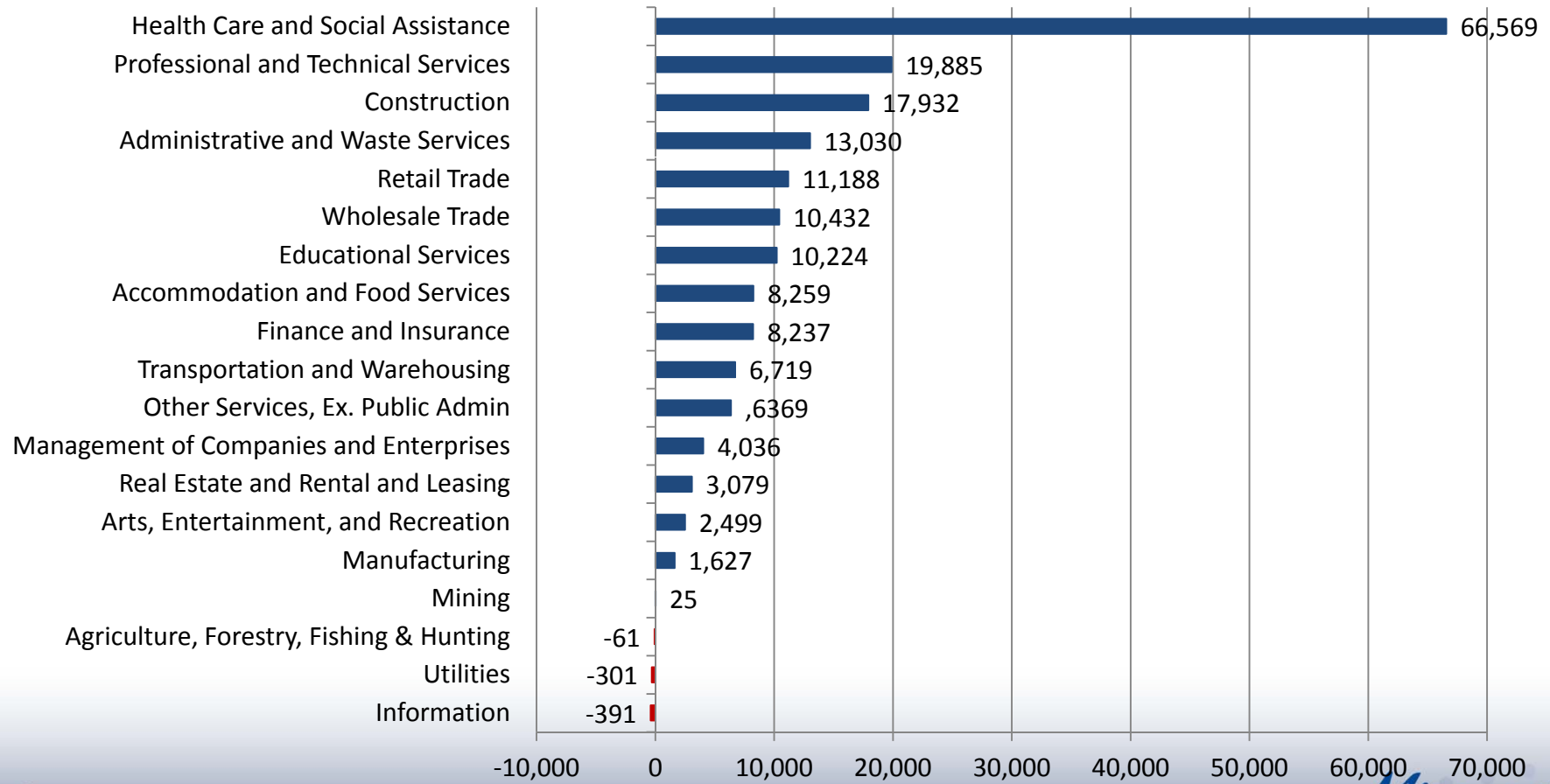
Expectations for future job growth

- Recovery from the steep job losses experienced between 2008 and 2010 will boost job growth in Minnesota during the next few years, but job growth will slow.
- Job growth over the next decade will average 1.3% a year, a pace similar to job growth experienced in 2011.
- The key macroeconomic assumptions driving the 2010-2020 national industry projections are:
 - GDP growth will average 3.0 % annually
 - Productivity growth will slow
 - U.S. labor force growth will slow
 - Unemployment will average 5.2% in 2020

Forecasting future job trends

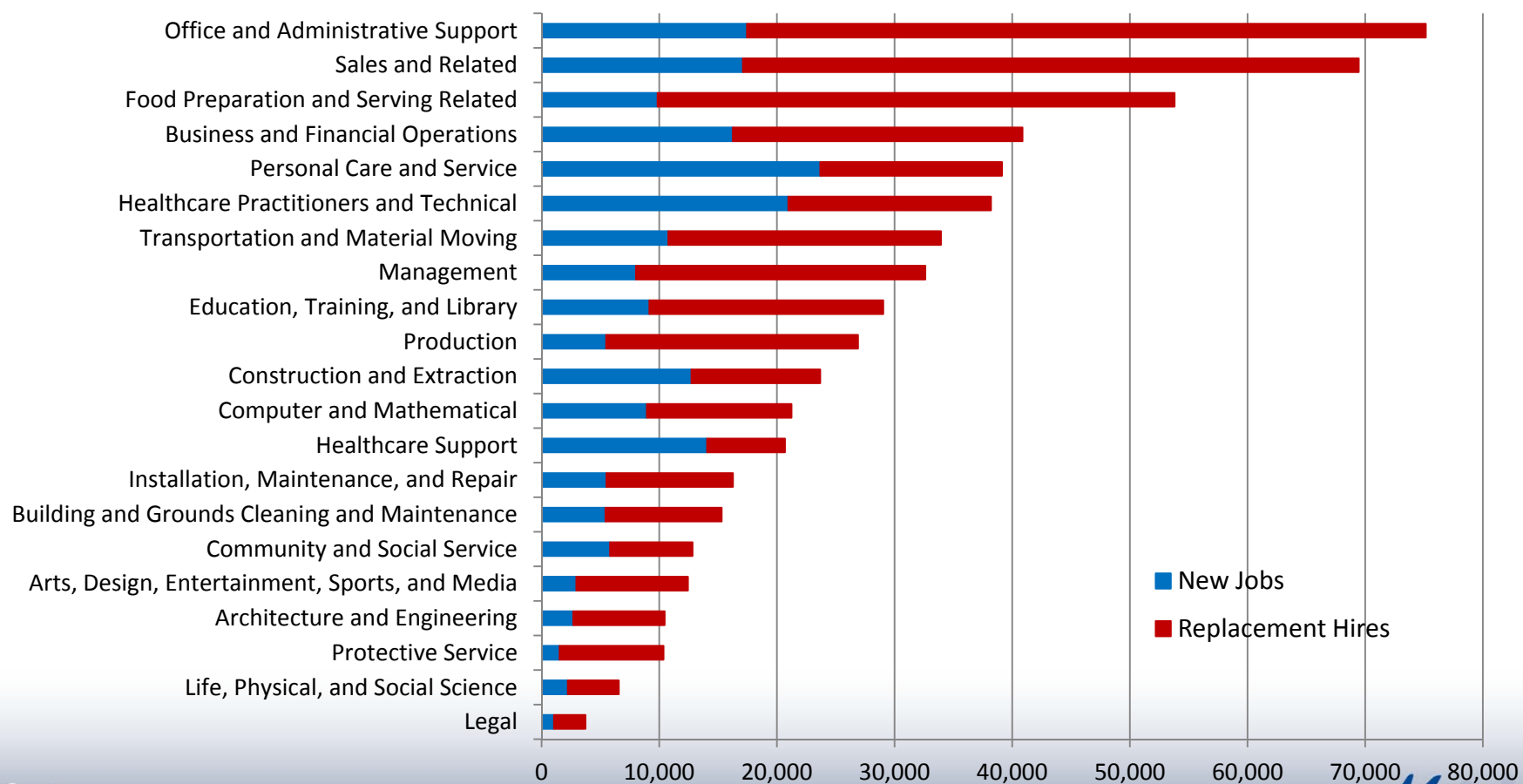
- Minnesota's economy will grow by 13%, or **368,000** new jobs, between 2010 and 2020.
 - MN gained **358,732 jobs** between 1980-1990.
 - MN gained **549,000 jobs** between 1990-2000.
 - MN lost **43,706 jobs** between 2000-2010.
 - 55%, or 202,060 new jobs within the metro region.
- Over 663,000 new workers will be needed to take jobs left vacant through retirements and replacements.
 - 392,050 replacement workers will be need in the metro region.
- Employment changes depend on the demand for goods and services, productivity advances, technological innovations, and shifts in business practices.

Healthcare will add the Most New Jobs in the Metro between 2010 and 2020



Source: MN Dept of Employment & Economic Development

Office and Sales Occupations will need the Largest Numbers of Workers



Source: MN Dept of Employment & Economic Development

Metro region fastest growing occupations, 2010 – 2020

- Helpers—Carpenters (65.6%)
- Veterinary Technologists and Technicians (65.3%)
- Reinforcing Iron and Rebar Workers (62.6%)
- Biomedical Engineers (62.3%)
- Personal Care Aides (58.9%)
- Industrial-Organizational Psychologists (54.4%)
- Home Health Aides (48.9%)
- Veterinarians (46.7%)
- Insulation Workers, Mechanical (45.9%)
- Emergency Medical Technicians and Paramedics (43.2%)
- Marriage and Family Therapists (43.1%)
- Glaziers (42.4%)
- Brickmasons and Blockmasons (40.7%)
- Helpers—Electricians (39.8%)
- Physical Therapist Aides (39.0%)
- Diagnostic Medical Sonographers (38.9%)
- Plumbers, Pipefitters, and Steamfitters (38.8%)
- Biochemists and Biophysicists (38.5%)
- Meeting, Convention, and Event Planners (36.3%)
- Electricians (35.8%)
- Sawing Machine Setters, Operators, and Tenders (34.6%)
- Pipelayers (33.9%)
- Cost Estimators (33.8%)
- Medical Secretaries (33.7%)

Source: MN Dept of Employment & Economic Development


Metro Region largest growing occupations, 2010 – 2020

- Personal Care Aides (17,174)
- Home Health Aides (8,073)
- Registered Nurses* (7,429)
- Retail Salespersons (6,519)
- Office Clerks, General (4,384)
- Combined Food Preparation and Serving Workers (3,835)
- Customer Service Representatives (3,259)
- Childcare Workers (3,021)
- Business Operations Specialists (2,910)
- Sales Representatives, Wholesale and Manufacturing (2,873)
- Heavy and Tractor-Trailer Truck Drivers (2,840)
- Receptionists and Information Clerks (2,434)
- Laborers and Material Movers, Hand (2,380)
- Nursing Aides, Orderlies, and Attendants* (2,355)
- Market Research Analysts and Specialists (2,228)
- Carpenters (2,156)
- Accountants and Auditors (2,082)
- Janitors and Cleaners (2,025)
- LPNs (1,957)
- Software Developers, Applications (1,937)
- Bookkeeping, Accounting, and Auditing Clerks (1,871)
- Landscaping and Groundskeeping Workers (1,799)
- Electricians (1,694)
- Social and Human Service Assistants (1,649)

Source: MN Dept of Employment & Economic Development



Education



Two ways to measure what education/training is needed for jobs

- Education/training typically required to do the job
- Education/training of people who currently hold the job

Total openings in Minnesota by typical education needed for entry, 2020

Educational Level	Projected Employment, 2020	Current Educational Attainment, MN 2012
Less than high school	833,577	270,170
High school diploma or equivalent	1,393,007	952,141
Some college, no degree	165,367	801,498
Associate's degree	176,690	381,595
Bachelor's degree	492,506	807,626
Graduate degree	119,470	387,714

Educational attainment computed for the adult (age 25 and over) population.

What about claims of a growing skills (i.e. educational) gap by 2020?

- In *Recovery: Job Growth and Education Requirements Through 2020*, the Georgetown University Center on Education and the Workforce claim that:
 - By 2020, we will need 26 million new workers with college degrees—but will fall short of that number by at least 5 million postsecondary degrees.
 - 74% of all jobs in Minnesota (2.3 million jobs) will require some postsecondary training beyond high school in 2020.

Compare “needs” to current educational attainment of MN adults, 2012

Educational Level	Georgetown Projections: MN, 2020	Current Educational Attainment: MN, 2012
Less than high school	147,180	270,170
High school diploma or equivalent	680,180	952,141
Some college, no degree	706,150	801,498
Associate's degree	444,940	381,595
Bachelor's degree	864,910	807,626
Graduate degree	357,170	387,714

Educational attainment computed for the adult (age 25 and over) population.

Source: U.S. Census Bureau, American Community Survey

What about underemployment?

- In 2012, 26.3% of adult (age 25+) workers in Minnesota were employed in a job two or more steps below their educational attainment level.



Skills gap and hiring difficulties

How can Minnesota employers have difficulty finding good workers?

Minnesota ranks:

- 3rd highest labor force participation rate (2013)
- 9th lowest unemployment rate (2013)
- 2nd highest percentage of the population with a high school diploma or higher (2012)
- 11th highest percentage of the adult population with a Bachelor's degree or higher (2012)

Skills gap debate

- A skills gap is the difference between the skill levels of the available workforce and the skills necessary to meet job requirements.
- Skills gaps are *not* synonymous with hiring difficulties.
 - Hiring difficulties may be a lack of qualified candidates who apply for a job.
 - Aside from lacking skills, there may be many reasons why qualified candidates don't apply for jobs.

“Difficult to fill” stems from...

- Supply-side factors: Hiring difficulties caused by a mismatch between job requirements and the training, skills, and experience of applicants.
- Demand-side factors: Hiring difficulties caused by problems that are unrelated to candidates' qualifications, such as unattractive work hours, inadequate compensation, geographic location of position, and ineffective recruiting.

Employers Speak

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Employers Speak: Minnesota Workforce Needs

Find out what Minnesota employers are looking for in today's workers.

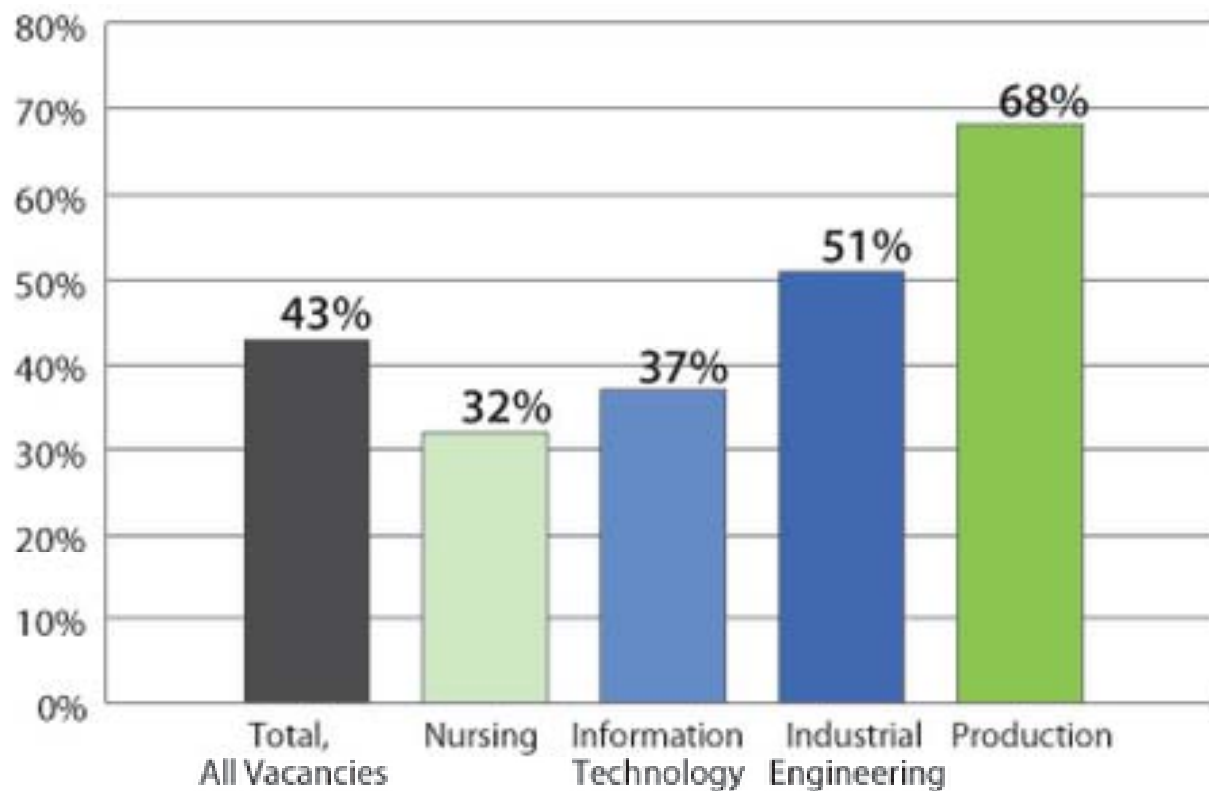
Choose at least one industry and topic to get started.

Industry (select all that apply)		Topic (select all that apply)
<input type="checkbox"/> Energy	AND	<input type="checkbox"/> General Skills ?
<input type="checkbox"/> Engineering		<input type="checkbox"/> Occupation-Specific Skills ?
<input type="checkbox"/> Health Care		<input type="checkbox"/> Experience & Credentials ?
<input type="checkbox"/> Information Technology (IT) (Coming Soon)		<input type="checkbox"/> Current Continuing Education ?
<input type="checkbox"/> Manufacturing		<input type="checkbox"/> Needs & Challenges in Continuing Education ?
<input type="checkbox"/> Transportation		<input type="checkbox"/> Workforce Trends & Challenges ?
		<input type="checkbox"/> Industry Trends ?
		<input type="checkbox"/> Educational Partnerships ?

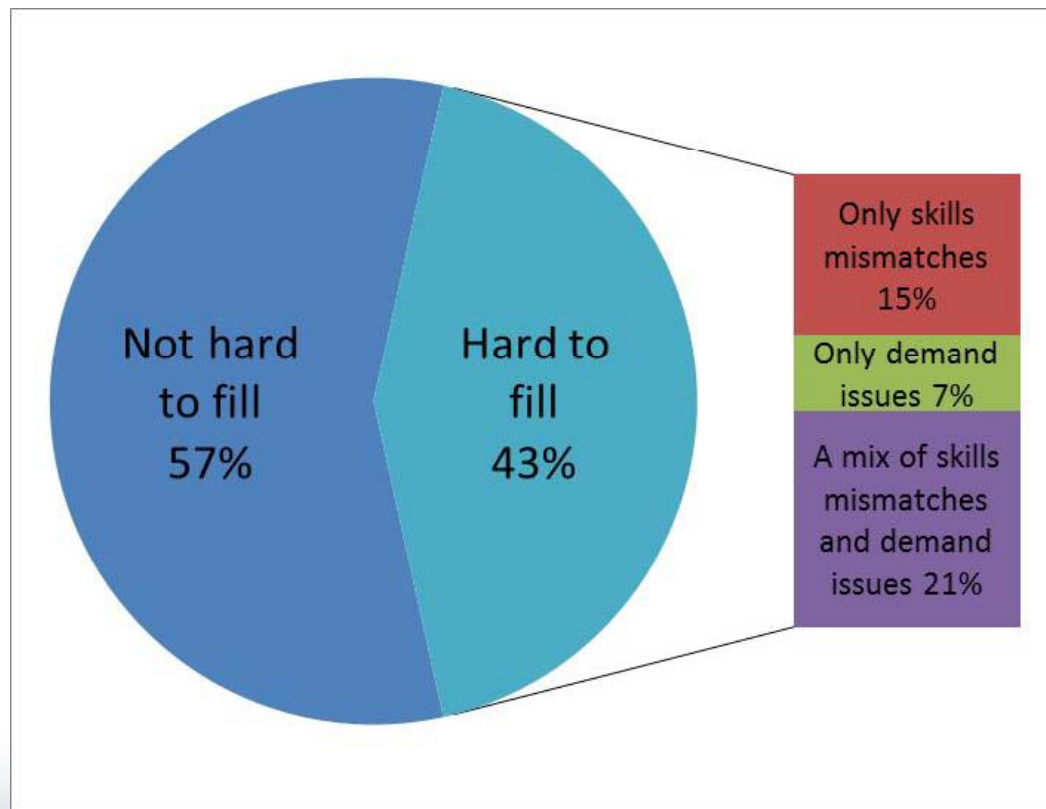
Search

www.MnWorkforceNeeds.org

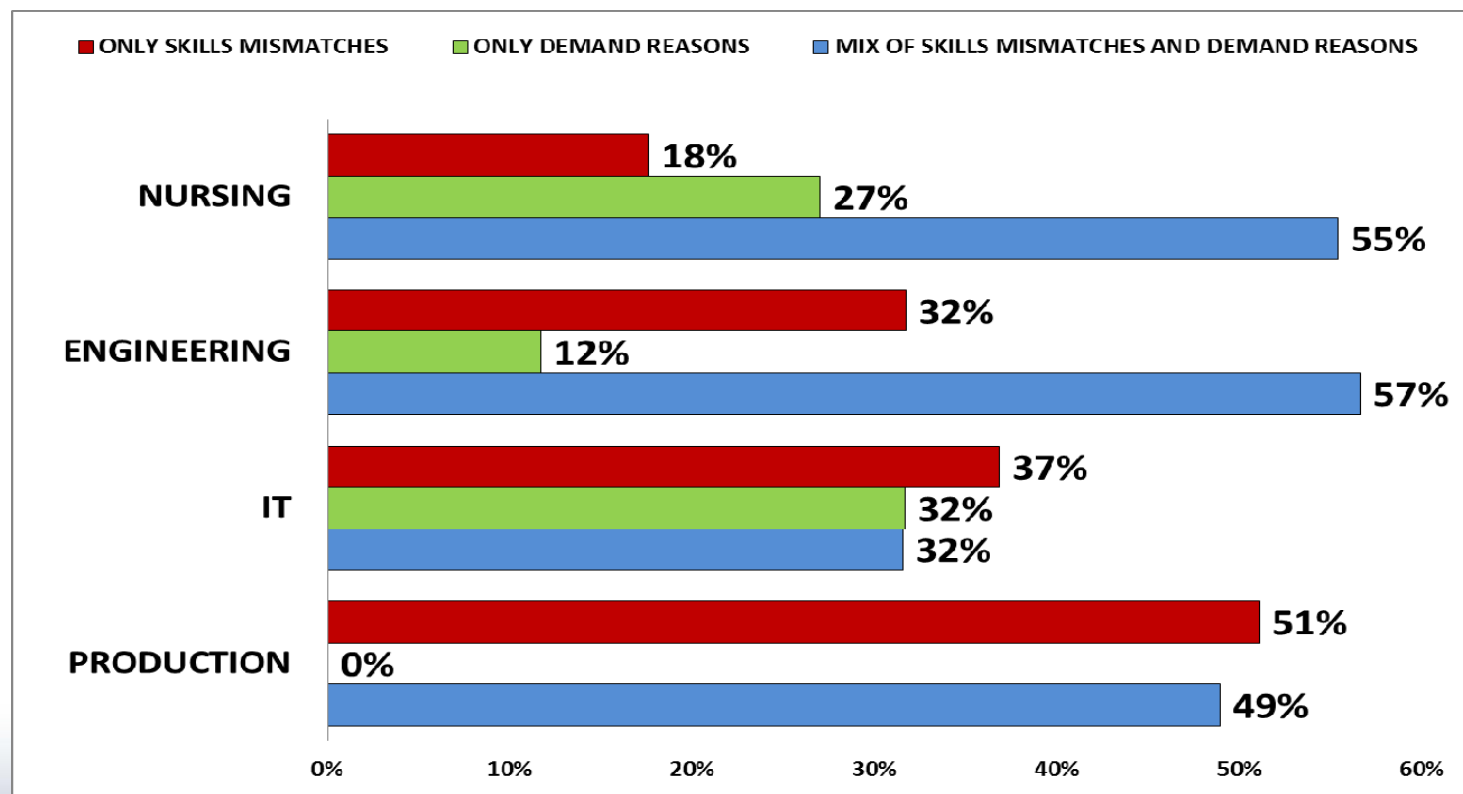
Share of vacancies reported as “difficult to fill” by occupation group



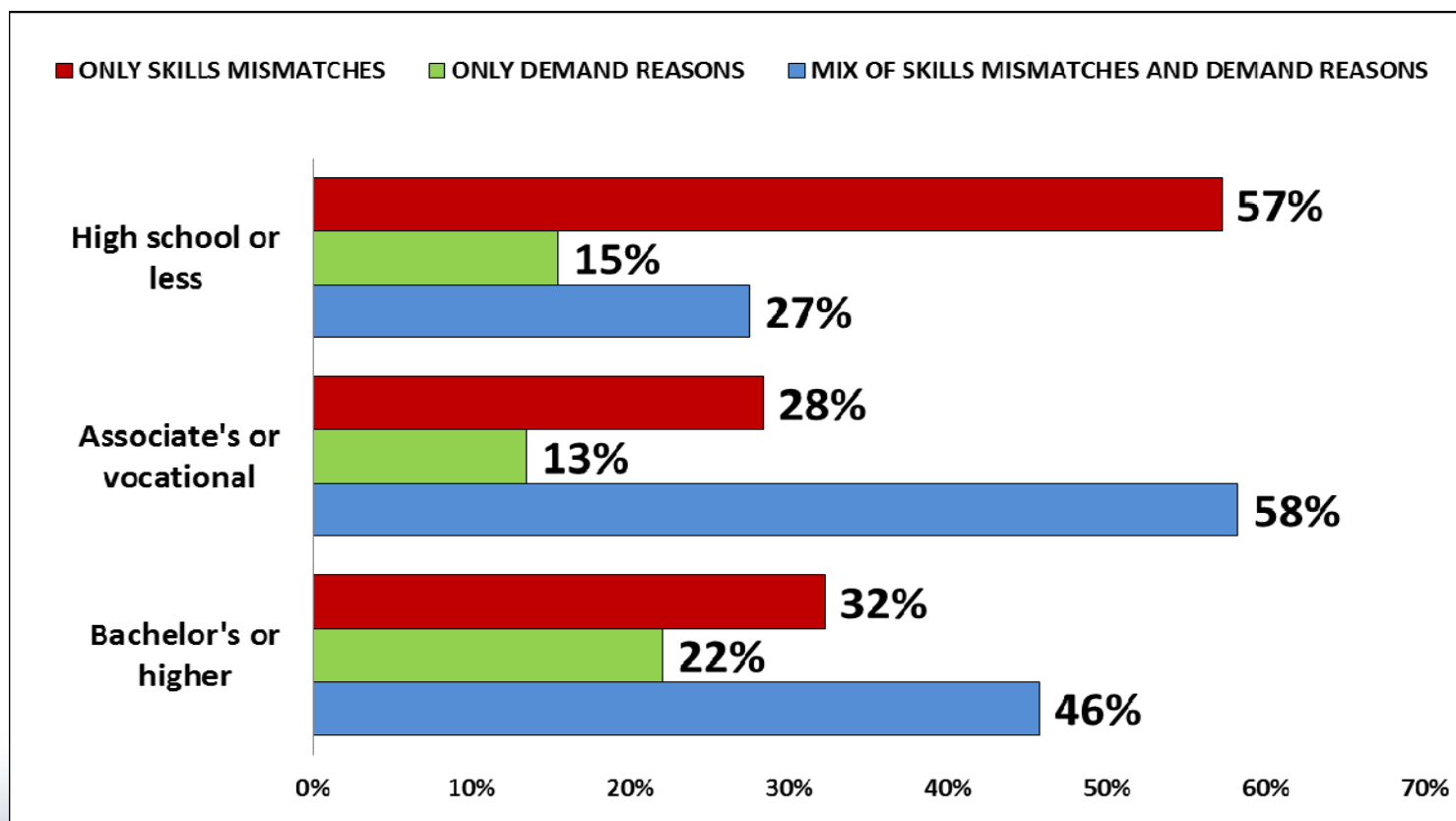
Factors perceived by employers as contributing to hiring difficulties



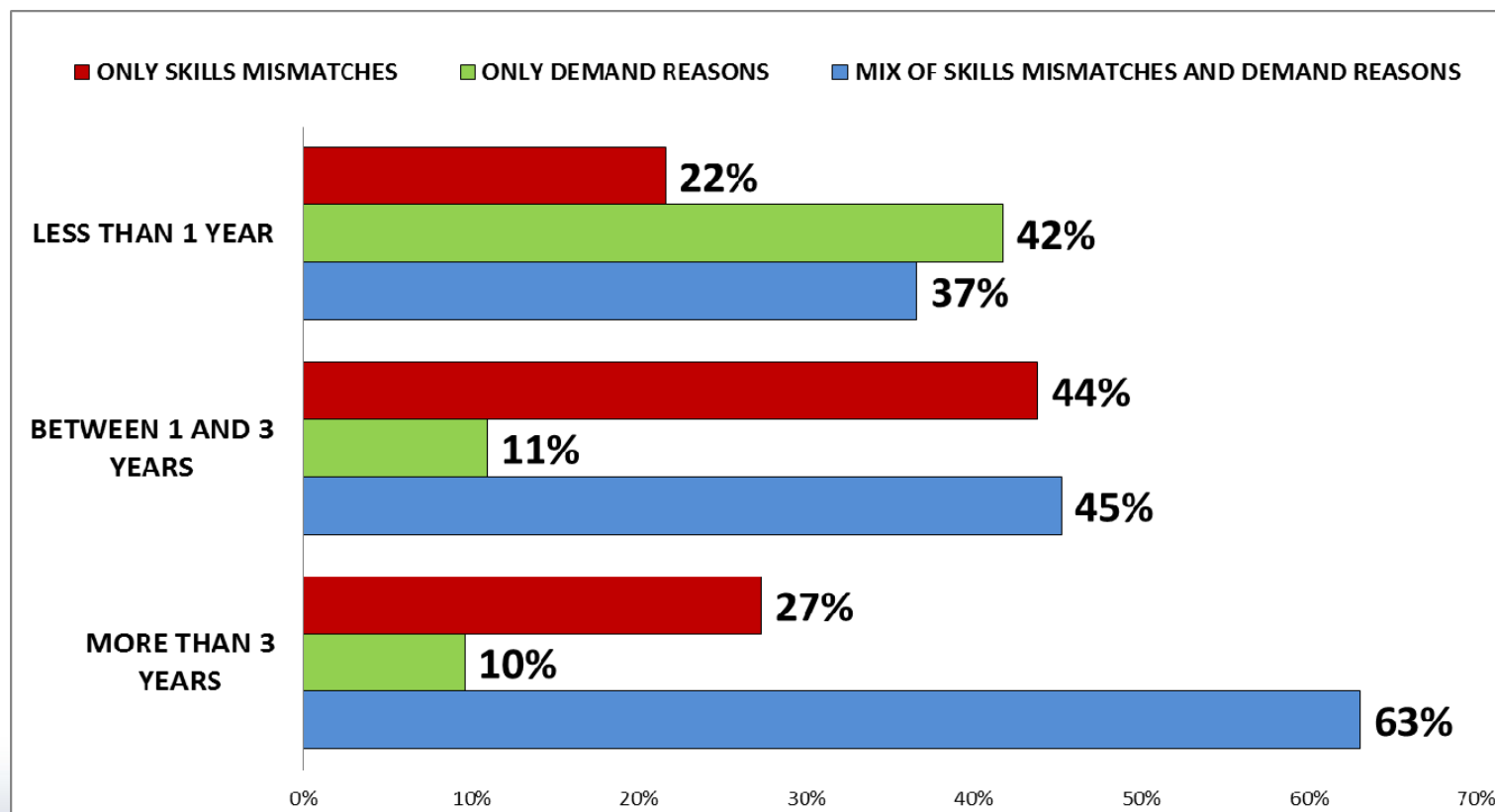
Factors contributing to hiring difficulties, by occupation



Factors contributing to hiring difficulties, by education level



Factors contributing to hiring difficulties, by experience level



Finding good skilled workers

- What makes an employee “good”?
- At what phase of the hiring process is a good worker recognized?
- How many good workers make it to the interview?
- Do employees want to be good (productive) or do they need to be motivated to be good (productive)?
- How do employers evaluate good?

Or do workers have difficulty finding good jobs?

- Two in five job openings in Minnesota are part-time.
- Average weekly hours only gradually increased post-recession and finally reached pre-recessionary levels in late 2013.
- Small gains in average earnings are wiped out when adjusted for inflation.

Are the shortages perceived or realistic?

- 61% of positions described as hard-to-fill were filled in five months or less.
- What price does delaying a filled position have?
 - Increased costs due to the need to hire contractors or pay overtime (82%)
 - Inability to expand (38%)
 - Inability to meet customer demand (38%)
 - Staff overload and/or stress (12%)

Employer strategies to respond to hiring difficulties

- Make demand more attractive
- Enhance internal training
- Make qualification requirements less stringent
- Collaborate with high schools and technical colleges
- Improve recruitment and retention strategies



Graduate outcomes

Graduate employment outcomes tool

- Brand new labor market tool!
- <https://apps.deed.state.mn.us/lmi/etd/default.aspx>

The screenshot shows the web interface for the Minnesota Graduate Employment Outcomes tool. At the top is the Minnesota Department of Employment and Economic Development logo. Below it, the title "GRADUATE EMPLOYMENT OUTCOMES IN MINNESOTA" is displayed. The form includes several selection fields: "Graduation Year" set to "Academic Year 2010-2011", "School Location" set to "Minnesota Statewide", and "Award Type" with checkboxes for "Certificates (less than Bachelor's Degrees)", "Associate Degree", "Bachelor's Degree", "Graduate (Certificates and Degrees)", and "All Awards" (which is checked). The "Institution Type" is set to "All Institution Types". The "Instructional Program" dropdown menu is open, showing options like "All Programs, Grand Total", "All Programs, Subtotals", and various academic fields. Below this is an "OR Program Keyword Search" text box. A "View Results" button is at the bottom left. The footer contains the copyright notice "© 2014 Minnesota Department of Employment and Economic Development" and the department's logo.

Minnesota
DEPARTMENT OF EMPLOYMENT AND ECONOMIC DEVELOPMENT

GRADUATE EMPLOYMENT OUTCOMES IN MINNESOTA

Graduation Year: Academic Year 2010-2011 ▼

School Location: Minnesota Statewide ▼

Award Type: ☐ Certificates (less than Bachelor's Degrees) ☐ Associate Degree ☐ Bachelor's Degree ☐ Graduate (Certificates and Degrees) ☒ All Awards

Institution Type: All Institution Types ▼

Instructional Program: All Programs, Grand Total
(Multiple selections: Ctrl+Click) All Programs, Subtotals
Agriculture, agriculture operations, and related sciences
Architecture and related services
Area, ethnic, cultural, gender, and group studies
Biological and biomedical sciences

OR Program Keyword Search:

View Results

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Minnesota
Department of Employment and Economic Development

Who will use the tool?

- **Prospective students**, to set realistic expectations for employment and wages following graduation
- **Parents and career counselors**, to help prospective students plan their education
- **Education program planners** interested in aligning program offerings to market demand
- **Policy makers** interested in evaluating the state's returns on investments in higher education



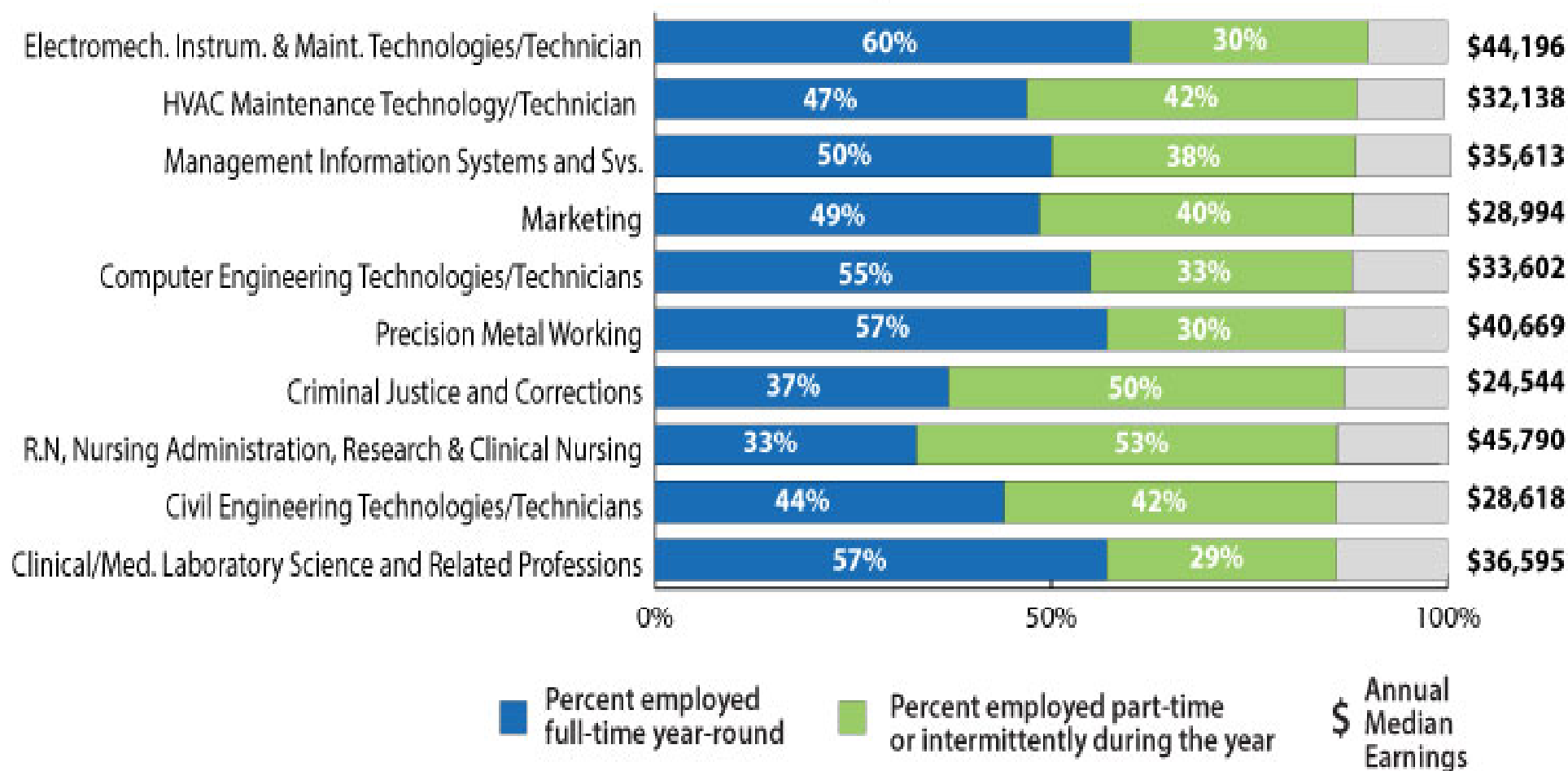
3 Key Aspects of Employment

1. EMPLOYABILITY
(in-state employment rate)
2. FULLTIME AND YEAR-ROUND STATUS
(job quality and job stability)
3. EARNINGS

Major Matters

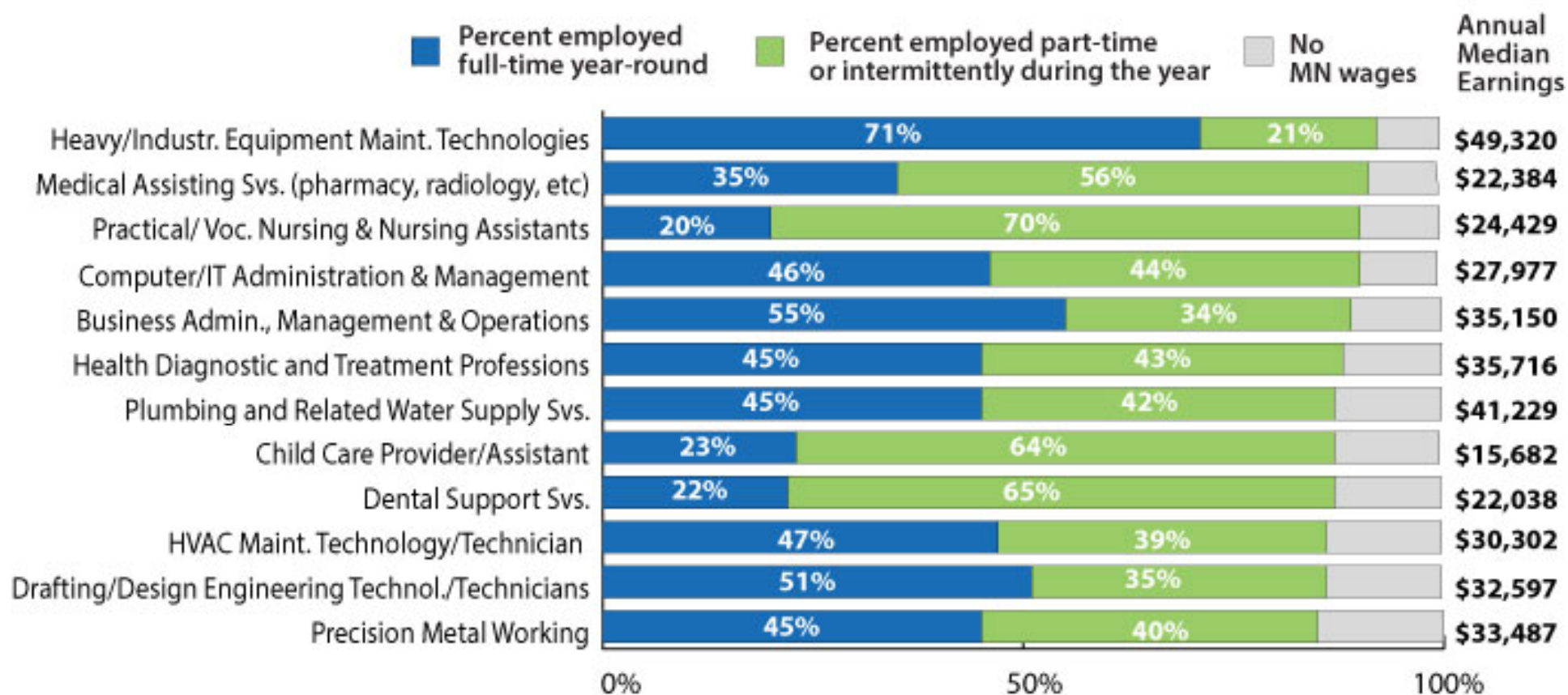
Figure 2

Top 10 Associate Degree programs with the highest employability in Minnesota, class of 2011



Major Matters

**Figure 1: Top 12 majors with highest employment rates:
Sub-baccalaureate Certificates*, class of 2011**



*Programs with less than 50 graduates were excluded

Major Matters

Figure 4: Majors with the highest median wages during the second year after graduation by degree level, class of 2011

UNDERGRADUATE CERTIFICATES

Heavy/Industrial Equipment Maintenance Technologies	\$49,320
Plumbing and Related Water Supply Services	\$41,229
Electromech. Instr. & Maint. Technologies/Technicians	\$36,697
Building Maintenance and Inspection	\$36,218
Surgical Technologist/ EMT paramedic	\$35,716

ASSOCIATE DEGREE

RN, Nursing Administration, and Clinical Nursing	\$45,790
Electromech. Instr. & Maint. Technologies/Technicians	\$44,196
Precision Metal Working	\$40,669
Industrial Production Technologies/Technicians	\$40,347
Electrical Engineering Technologies/Technicians	\$38,636

BACHELOR'S DEGREE

Electrical, Electronics and Communications Engineering	\$57,722
Business/Commerce, General	\$57,227
RN, Nursing Administration, and Clinical Nursing	\$56,952
Chemical Engineering	\$56,900
Mechanical Engineering	\$55,384

POST-BACCALAUREATE DEGREES AND CERTIFICATES

Pharmacy, Pharmaceutical Sciences, and Administration	\$101,741
Engineering-Related Fields	\$82,057
RN, Nursing Administration, Research, and Clinical Nursing	\$79,254
Computer Science	\$77,565
Applied Mathematics	\$76,607

Conclusions

- Choice of major is the main driver of economic success after graduation
- There are more opportunities in MN for people with degrees that are technical (focused on analytical/quantitative skills) or geared towards growing sectors (HC & Social Assistance, Education). This is true at every award level
- The evidence demonstrates the importance of choosing a major with an eye towards career paths and labor market trends in Minnesota



Target your market

Labor market is helpful, but...

- We can only track and measure what we know.
- Data does not always equal individual experience.
- New, emerging jobs and specialty trends in an occupation may not be easily identified.
- Networking with key industries and professionals will provide important insight and help *uncover the hidden job market*.

Why would a job be hidden?

- The employer needs to (confidentially) replace someone
- Public company may fear news of a hiring will hurt stock prices
- Employer does not want to reveal future plans to competitors
- Employer wants referrals before publicizing the opening and receiving many resumes from unqualified candidates
- The employer uses a search firm or recruiter
- The employer uses social media to recruit candidates
- A small employer may lack the resources to advertise the opening
- There's an opening and a hiring freeze, so the job can't be publicized

Career OneStop Employer Locator

- Online business directory
- Search by industry, occupation or location
- Very basic information, so firms may require additional research
 - Contact info for firm



The screenshot shows the 'Employer Locator' page. At the top, it says 'Employer Locator' with a small image of two people. Below that, a paragraph explains the tool's purpose: 'Use the Employer Locator to find contact information about a specific employer or list of employers. It will be necessary to contact each employer to see if they have job openings available. **Start your search by selecting a tab option below.** Follow the instructions on each page to get your results. If you need help select Employer Locator Help below.'

There are four search tabs: 'Search By Industry' (selected), 'Search By Occupation', 'Search By Location', and 'Search By Keyword'. The 'Search By Industry' tab is active, showing a dropdown menu titled 'Select an Industry Sector (Choose One):'. The dropdown list includes: 'Accommodation and Food Services', 'Administrative and Support and Waste Management and Remediation Services', 'Agriculture, Forestry, Fishing and Hunting', 'Arts, Entertainment, and Recreation', 'Construction', 'Education Services', and 'Finance and Insurance'. A 'Next' button is at the bottom right of the dropdown.

At the bottom of the page, there are four links: 'START OVER', 'RELATED RESOURCES', 'AMERICA'S CAREER INFONET', and 'EMPLOYER LOCATOR HELP'.

www.CareerOneStop.org

ReferenceUSA

- Online business directory
- Search by name, industry, region, size
- Information includes:
 - General info about firm
 - Industry information
 - Executive directory

The screenshot shows the ReferenceUSA website interface. At the top left is the ReferenceUSA logo with the tagline "An infoUSA Company". At the top right are links for "Questions?" (800.808.1113) and "E-mail Us". Below the header is a navigation bar with "Version 2008.8", a dropdown menu set to "U.S. Business", and links for "Home", "About Us", "Our Quality", "Contact Us", and "Help". The main content area features three tabs: "Quick Search", "Custom Search", and "Guided Search". Below the tabs is a search form with the instruction: "Fill out one or more of the following criteria boxes, then click the 'Search Now' button." The form includes fields for "Company Name", "City", "State" (a dropdown menu set to "All"), and "Phone - 10 digits". There is also a "Search Tip" link. At the bottom right of the form are "Search Now" and "Clear Search" buttons. At the bottom of the page, there is a footer with the text: "25 Prints/Downloads per Search", "© 2008 infoUSA, Inc. All Rights Reserved.", "5711 South 86th Circle, P.O. Box 27347 Omaha, NE 68127", and "IP: 156.99.22.53".

Access through the library's website



Other economic & career exploration resources

U.S. Census Bureau's FactFinder

Paths to get to Census and American Community Survey data

Fast Fact Profiles

- ❖ Select the state, county or city

Data Sets —the greatest level of customization

- ❖ Select the data source
- ❖ Drill-down into geographic area and specific tables



Population trends & forecasts

U.S. Data

www.census.gov/popest/estimates

www.census.gov/population/www/projections/popproj

Minnesota Data

www.demography.state.mn.us/estimates

www.demography.state.mn.us/projections





(including population projections by race and ethnicity)

Twin Cities

www.metrocouncil.org/Reports/index.htm

www.metrocouncil.org/metroarea/stats

Online resources for career and skills identification

- I*SEEK – www.iseek.org 
- Career OneStop – www.CareerOneStop.org 
- O*Net – <http://online.onetcenter.org> 
- Occupational Outlook Handbook – www.bls.gov/oco 

Specialty career sites

- **MyMnCareers, www.MyMnCareers.org**
 - Helps working learners take the steps needed to pursue and advance in a career pathway.
- **STEP AHEAD, www.ISEEK.org/exoffender**
 - Helps job seekers with felony convictions and other criminal charges be successful in their job search.
- **MnCareerPathways, www.MnCareerPathways.org**
 - Helps Minnesota adult students create career and training plans that will prepare them for a fulfilling career.

Other LMI products and publications

Minnesota Economic TRENDS

- ❖ Quarterly magazine on economic topics
- ❖ Subscriptions available free of charge or on-line



<http://mn.gov/deed/trends>

Minnesota Employment REVIEW

- ❖ Monthly magazine on economic data and regional trends
- ❖ Includes Minnesota business development
- ❖ Available exclusively on-line



<http://mn.gov/deed/review>

O*NET OnLine

- National occupational research website
- Search by abilities, interests, knowledge, skills, etc...
- Information includes:
 - Occupational description
 - Tools & technology
 - Knowledge, skills, and abilities, work context, etc...
 - Wages & employment trends
- Link to BLS Occupational Outlook Handbook



More database resources available through the library

- **Business and Company Resource Center** – Includes company profiles, brand information, rankings, investment reports, company histories, chronologies and periodicals
- **Business Source Premier** – Browse and search for country economic data, company profiles, industry information and market research
- **ProQuest Newspapers** – Access current and historical articles from 350 state, national and international newspapers
- **Regional Business News** – Find articles from 75 business journals, newspapers and newswires from all metropolitan and rural areas within the United States

LMI Helpline

- LMI experts are available to answer your questions weekdays from 9 AM to 3 PM
- Telephone 651-259-7384 , or toll free at 888-234-1114
- Send questions by e-mail to deed.lmi@state.mn.us

Let me know how I can help

Tim O'Neill

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