

Supply and Demand Conditions for Electricians

An Update of Labor Market and Electrician Program Data

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Purpose

The purpose of this report is to provide a current regional analysis of the labor market for electricians in the state of Minnesota.

Background

A memo was sent to Presidents and Chief Academic Officers at the 13 Minnesota State Colleges and Universities institutions with electrician programs on March 15, 2007 that prohibited the addition of new electrician programs and directed that fiscal year 2008 enrollment be limited to the fiscal year 2007 level. This decision was based primarily on an analysis of statewide labor market data on electricians, including trends in electrical contractor industry employment, Unemployment Insurance claims, long-term occupational employment projections, job vacancies, and the number of electrician program completers from all Minnesota post-secondary institutions.

Subsequently in April 2007, regional estimates of the supply/demand conditions for electricians were produced. These estimates used many of the same labor market data, as well as an adjustment for the relocation of program graduates from the region in which the institution is located to the region in which they are employed, including moving out of Minnesota.

The March 15th memo indicated that the decision to cap electrician enrollment would be re-assessed in October of subsequent years using both internal and external inputs. This is the third such report that has been prepared.

Following a summary of findings, this report presents regional information on demand, supply, wages and net supply-demand.

EXECUTIVE SUMMARY

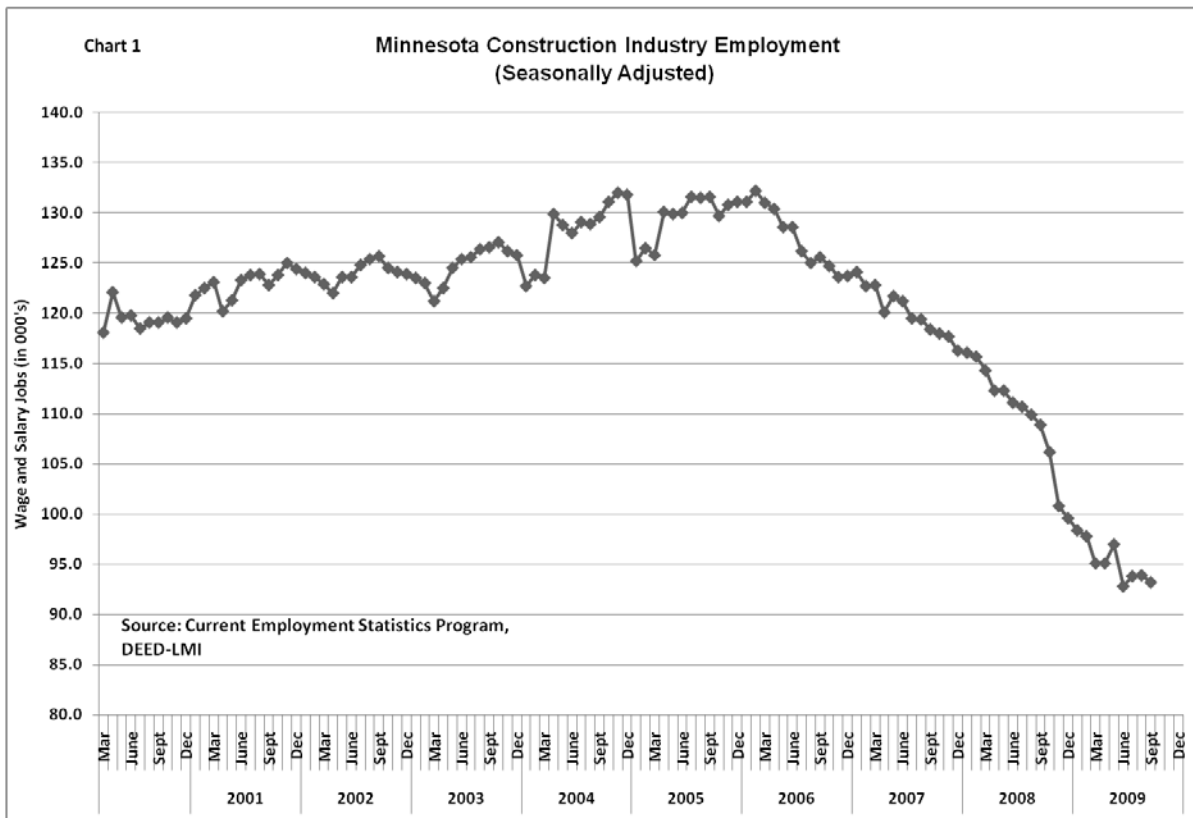
Overall, statewide indicators show that the Great Recession hit the already-struggling electrician labor market hard in the past year. The surplus is more than 2.5 times larger than what was estimated one year ago.

1. Employment in the construction industry, where most electricians are employed, is down by 15,700 or 14.4 percent from a year ago, and it is projected to continue to decline.
2. There were 2,005 electricians receiving regular Unemployment Insurance benefits in September - an increase of 1,135 or 130 percent from a year ago. The increase in claims has been felt throughout all regions in the State, but especially in the Twin Cities, central and northwest regions.
3. The number of graduates from Minnesota electrician programs, 437, was over 20 percent lower in the 2008-09 school-year than in the previous academic year when there were 552 graduates.
4. Minnesota electrician program enrollment in the fall of 2009 is 909, a decrease of 78 or about 8 percent from last year's level.
5. Wage trends for electricians show no upward pressure, indicating a more than sufficient supply. Inflation-adjusted wages for electricians have declined in five consecutive years.
6. The number of employed electricians in Minnesota is projected to decrease by 764 or - 8.1 percent over the next year due to the slow recovery from the severe recession. Over the next 10 years, the number of employed electricians is projected to increase by only 2 percent. Practically all projected electrician openings result from replacement openings.
7. Hiring conditions continue to vary somewhat by region. Graduate Follow-up Survey data showed declines or little change in related-employment rates. In spite of difficult economic conditions, the related employment rates for electrician program graduates in the northwest and southwest regions remain at over 90 percent. The related employment rates for graduates in the northeast region fell precipitously to 36.6 percent, while the rate for graduates in the Twin Cities region increased somewhat but remains very low at 64.5 percent.

DEMAND

Industry Employment Trends In Minnesota, over 80 percent of all electricians are employed in the construction industry.¹ Based on national staffing patterns within the construction industry itself, 93 percent of electricians are employed by electrical contractor firms.²

Chart 1, below, shows the seasonally-adjusted employment trend in statewide construction industry employment. The total number of construction industry jobs in Minnesota grew until about February, 2006. The total number of construction jobs in September 2009 was 93,200. This is down 39,000 or 29.5 percent from the high reached in February, 2006, and down 15,700 or 14.4 percent from a year ago.³



¹ Occupational Employment Statistics Program (OES), DEED-LMI

http://www.deed.state.mn.us/lmi/tools/oes/staffing_patterns.htm

² OES, Bureau of Labor Statistics (BLS), <http://www.bls.gov/oes/>

³ Current Employment Statistics Program (CES) DEED-LMI <http://www.deed.state.mn.us/lmi/tools/ces/default.aspx>

A more detailed breakdown of construction industry employment trends is not available on a seasonally-adjusted basis. Instead, Table 1 shows the comparison of employment to the same month a year ago. It should be noted that electrical contractors are found in the Building Equipment Contractors industry.

Table 1. Construction Downturn is Now Affecting Minnesota
New Residential Construction Most Severely

Industry	September 2008	September 2009	Change from Year Ago	
			Numerical	Percent
Construction	119,372	104,293	-15,079	-12.6%
Construction of Buildings	27,114	22,096	-5,018	-18.5%
Residential Building	12,112	8,784	-3,328	-27.5%
Heavy & Civil Engineering Construction	17,108	16,474	-634	-3.7%
Specialty Trade Contractors	75,150	65,723	-9,427	-12.5%
Foundation, Structure & Building Exterior	16,819	15,264	-1,555	-9.2%
Building Equipment Contractors	33,188	28,915	-4,273	-12.9%

Source: CES Program, DEED-LMI

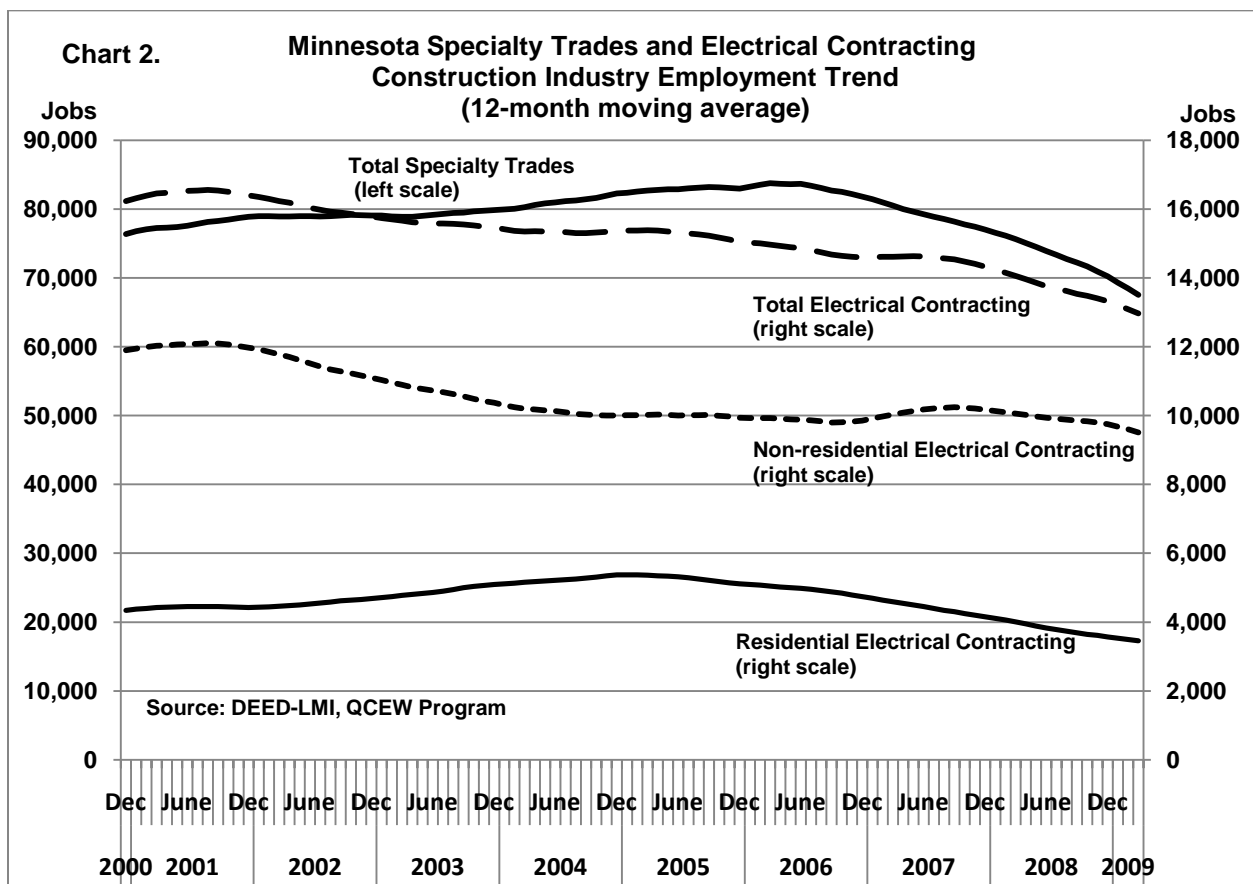
Over the past year, the construction sector has suffered the second largest relative job loss of any sector in the Minnesota economy, trailing only the smaller Mining and Logging Sector which suffered a nearly 20 percent loss of jobs. As Table 1 shows, the residential building industry has suffered the greatest loss of jobs as a percentage of total jobs. Closely related to the drop in residential building is the drop in building equipment contractors, the specialty trade subcontractors that complete various phases of the building project.

Through August 2009, the number of housing units authorized by building permits in Minnesota is 20 percent below the number authorized in the first eight months of 2008; 55 percent below the number of permits in the first eight months of 2007; nearly 70 percent below the first eight months of 2006; and 75 percent below the same time in 2005.⁴

⁴ <http://www.census.gov/const/www/C40/table2.html>

The Quarterly Census of Employment and Wages⁵ is based on employer-submitted reports on payroll employment and wages for the Minnesota Unemployment Insurance Tax. It shows the most detailed breakdown of industry employment by industry category and geographic region. However, there is a six-month lag in time from the end of the quarter for which employment is reported and when it becomes available.

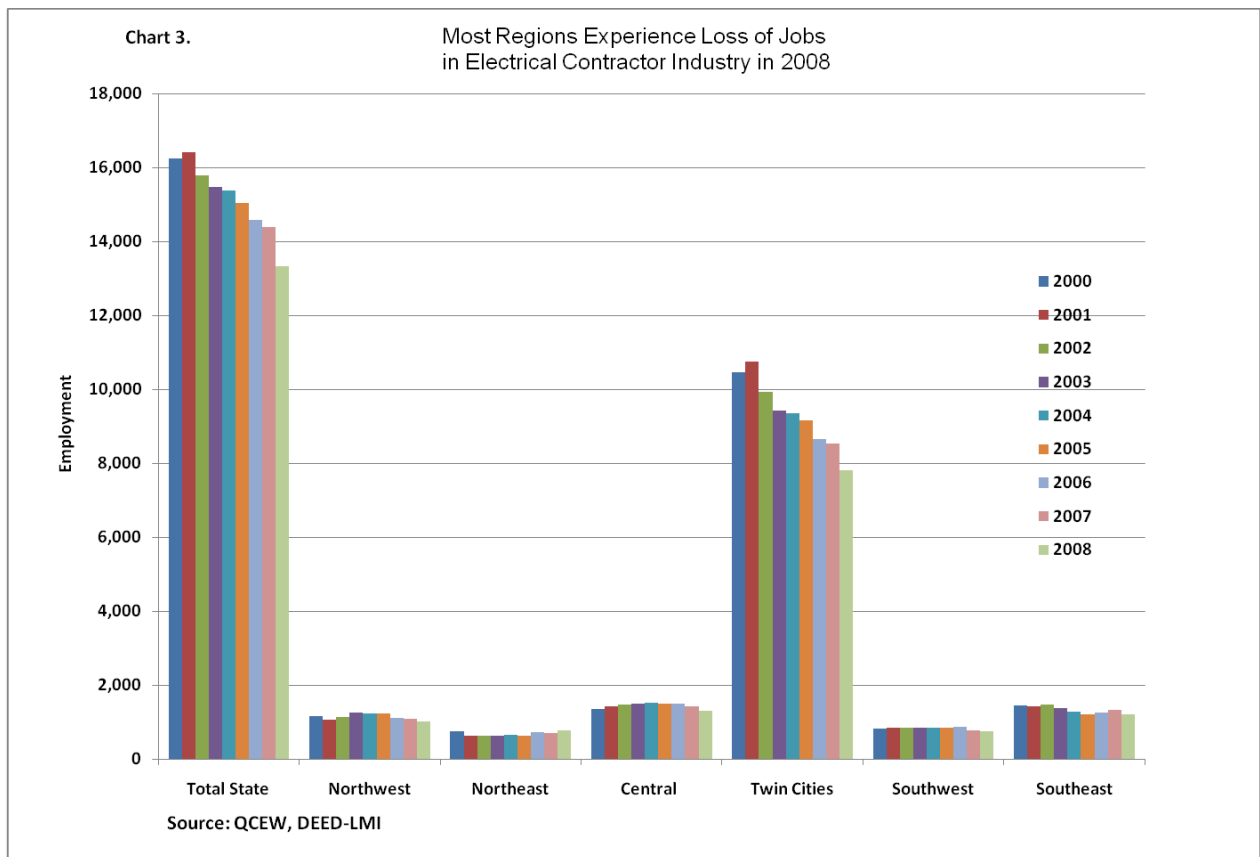
Chart 2 shows that while total specialty trades construction industry employment grew from 2000 through mid-2006; total electrical contractor employment has been declining gradually since 2001. The demand for non-residential electrical contracting work weakened after 2001, leveled off from 2004 to 2007, but started to drop again in 2008. The slowdown in residential construction has had a pronounced impact on residential electrical contracting employment since 2005.



⁵ QCEW <http://www.deed.state.mn.us/lmi/tools/qcew/default.aspx>

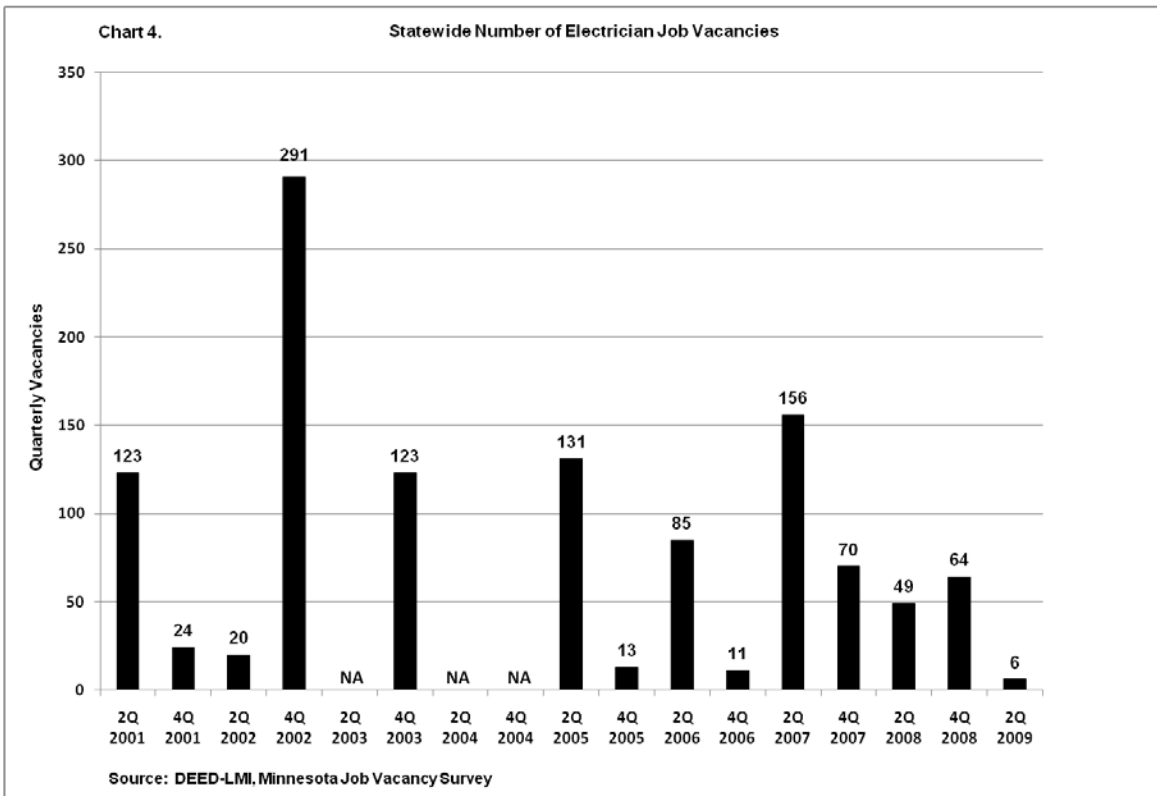
Chart 3 shows that the 7-county Minneapolis-St. Paul region has slightly less than 60 percent of the total electrical contractor industry jobs in the State. Over 90 percent of the State’s job loss in the electrical contractor industry since 2000 has occurred in the Twin Cities region, -2,648 jobs or a decline of -25.3 percent. Most regions in Greater Minnesota have experienced smaller changes over the time period, ranging from a -16.6 percent decrease in the Southeast region to a 2.7 percent increase in the Northeast region. Numerically, the job loss ranges from -240 in the Southeast region to +20 in the Northeast.

Between 2007 and 2008, there was a greater than or equal to relative loss of jobs in the electrical contractor industry in several Greater Minnesota regions than in the Twin Cities. There was a - 8.5 percent drop in electrical contractor jobs in the Twin Cities, while jobs in the electrical contractor industry dropped by -8.9 percent in the Southeast and by -8.5 percent in the Central region. The electrical contractor industry added 55 jobs in the Northeast region, a 7.7 percent increase.⁶



⁶ QCEW, DEED-LMI, <http://www.deed.state.mn.us/lmi/tools/qcew/default.aspx>

Job Vacancies Twice each year the Department of Employment and Economic Development Labor Market Information Office (DEED-LMI) conducts a Job Vacancy Survey. Chart 4 shows that the statewide number of vacancies for electricians in the second quarter of 2009 has decreased significantly from the same quarter a year ago. The job vacancy rate for electricians in the second quarter 2009 was estimated to be less than 0.1 percent. This is less than both the overall job vacancy rate for the major construction and extraction occupational group (0.9%), and the overall job vacancy rate (1.2%).⁷



⁷ Job Vacancy Survey (JVS), DEED-LMI, <http://www.deed.state.mn.us/lmi/publications/jobvacancy.htm>

Short-term Projections Short-term industry and occupation employment projections are produced quarterly by DEED-LMI. The most recent figures available are shown in Table 2 below. The number of employed electricians is projected to decrease by 764 or –8.1 percent over the next year due to the expected slow recovery from the severe recession and the lack of demand for new residential construction given the large supply of short-sale housing in the market. All electrician openings result from projected replacement openings.⁸

Table 2. Replacement Demand Accounts for all Short-term Projected Electrician Job Openings

Occupation	Estimated Employment Q2 2009	Projected Employment Q2 2010	Second Quarter 2009 to Second Quarter 2010			
			Percent Change	Numeric Change	Replacement Openings*	Total Openings**
Total, All Occupations	2,684,639	2,662,268	-0.8%	-22,371	59,305	74,120
Construction and Extraction	85,887	79,988	-6.9%	-5,899	1,462	1,463
Electricians	9,375	8,611	-8.1%	-764	229	229

Source: DEED-LMI

*Replacement Openings: Net replacement openings are an estimate of the need for new work force entrants to replace workers who leave an occupation. It estimates the net movement of the following:

- 1) experienced workers who leave an occupation and start working in another occupation, stop working altogether, or leave the geographic area, minus
- 2) experienced workers who move into such an opening. It thus does not represent the total number of jobs to be filled due to the need to replace workers.

** Total Openings: Total job openings represent the sum of employment increases and net replacements. If employment change is negative, job openings due to growth are zero and total job openings equals net replacements.

⁸ Short-Term Projections by Occupation, DEED-LMI, <http://www.deed.state.mn.us/lmi/tools/projections/Default.aspx>

Long-term Projections Table 3 shows the electrician employment and job openings projections for Minnesota and the six planning regions for 2009-2019 from Economic Modeling Specialists, Inc. (EMSI)⁹ The EMSI third quarter projections are based on statewide industry employment trends through June 2009 and regional employment trends through the first quarter of 2009.

Table 3. Practically All Projected Electrician Openings are Due to Replacement Demand, not Growth

Area/Region	Estimated Employment 2009	Projected Employment 2019	2009-2019				
			Percent Change	Numeric Change	Replacement Openings*	Total Openings**	Avg. Ann Total Openings
Minnesota	11,258	11,455	2%	197	2,898	3,095	310
Northwest	1,066	1,170	10%	104	274	378	38
Northeast	962	969	1%	7	248	255	25
Central	1,388	1,427	3%	39	357	396	40
Mpls-St Paul	5,792	5,761	-1%	-31	1,460	1,460	146
Southwest	850	890	5%	40	219	259	26
Southeast	1,200	1,238	3%	38	309	347	35

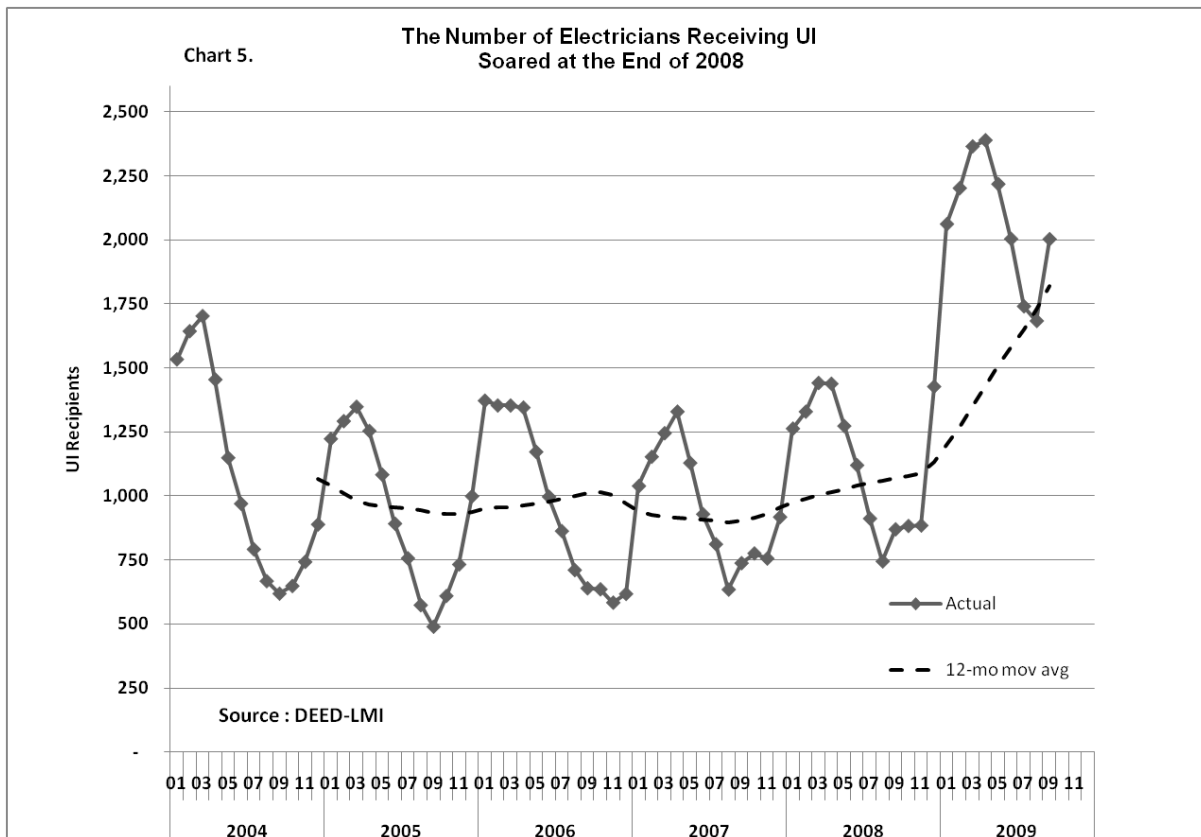
* Please refer to the definitions found with Table 2.
Source: EMSI, Third Quarter 2009.

According to Table 3, there is a projected average annual demand of 310 electrician job openings each year from 2009-2019 in the State. Job openings in the seven-county Minneapolis-St. Paul region are projected to account for 47 percent of the total State's electrician openings. Net replacement demand, including retirements, is also a big part of the long-term projections figures. About 94 of every 100 projected openings are due to replacement demand.

⁹ The Office of the Chancellor, Minnesota State Colleges and Universities has a contract with EMSI to license Strategic Advantage, a modular web-based tool which is based on 80 state, federal, and private economic and demographic data sources. For more information, see <http://www.economicmodeling.com/>

SUPPLY

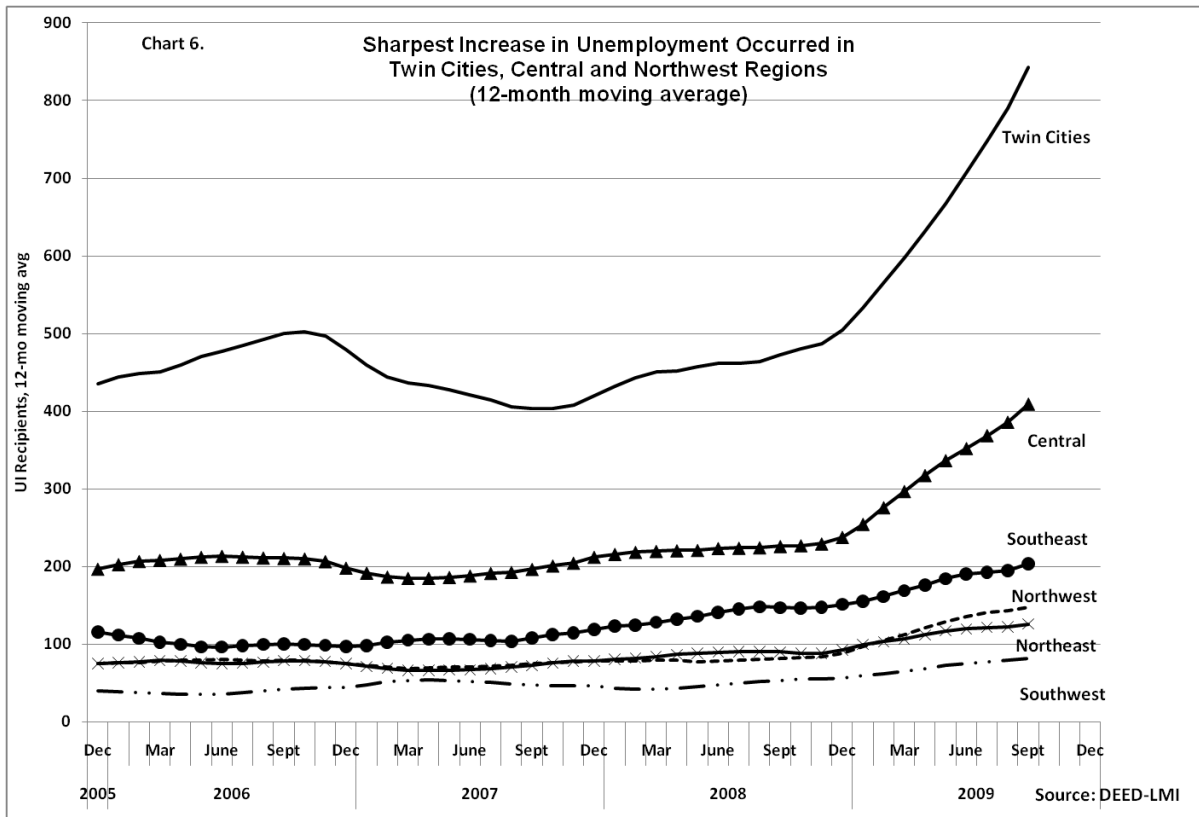
Trends in Unemployment Monthly data on electricians who have been receiving Unemployment Insurance (UI) benefits provide the best available information on the number of unemployed electricians, both union and non-union members. However, it will not capture all of the unemployed due to eligibility requirements and the fact that some individuals may have exhausted benefits. The chart below shows the comparable trend for only those individuals receiving regular UI benefits over the past six years. It does not include an additional number of unemployed workers who received Federal Emergency Unemployment Compensation (EUC) benefits. The EUC benefits were first paid in July 2008 and have been extended several times since then.



The impact of the Great Recession, on top of the earlier slowdown in residential construction, is dramatically reflected in the increase in unemployment insurance claims beginning in the fourth quarter of 2007 and accelerating in 2009. As shown in Chart 5, the actual number of people receiving Unemployment Insurance this September was 2,002, up by 1,132 or 130 percent from a year ago. The twelve-month moving average in September 2008 was 1,821, up by about 750 or 70 percent from a year ago.¹⁰

¹⁰ Unemployment Insurance claims data provided by DEED-LMI.

Chart 6 shows the 12-month moving average of electrician Unemployment Insurance recipients by the six sub-state planning regions. The increase in claims has been felt by all regions of the State. As mentioned earlier, the 12-month average number of electrician Unemployment Insurance recipients was up by about 750 or 70 percent from a year ago, with the Twin Cities region registering an increase of 371 or 78.6 percent. While having smaller numerical increases, unemployment has risen more rapidly in the northwest region (up 66 claims or 81.6 percent) and in the central region (up 183 claims or 80.8 percent).



Program Graduates The number of students completing electrician programs in Minnesota in 2009 was lower than in 2008. As expected, the number of state college graduates declined by 79 or -17.0 percent. In addition, there were 30 fewer graduates from electrician program at Dunwoody College of Technology this year, a -37 percent decrease. The two-year electrician program at the Leech Lake Tribal College is cohort based, so there are graduates every other year.

Table 4. The Overall Number of Electrician Program Graduates Dropped Sharply in 2009

Institution	Graduates		Change FY08 - FY09	
	FY08	FY09	Numerical	Percentage
Anoka	41	40	-1	-2.4%
Dakota County	29	21	-8	-27.6%
Hibbing	32	23	-9	-28.1%
Lake Superior	25	25	0	0.0%
Minneapolis	16	7	-9	-56.3%
Minnesota State	79	63	-16	-20.3%
Minnesota West	33	16	-17	-51.5%
Northland	30	26	-4	-13.3%
Northwest	21	16	-5	-23.8%
Ridgewater	20	22	2	10.0%
Riverland	31	35	4	12.9%
Saint Cloud	54	49	-5	-9.3%
Saint Paul	54	43	-11	-20.4%
TOTAL State Colleges	465	386	-79	-17.0%
Dunwoody	81	51	-30	-37.0%
Leech Lake Tribal	7	0	-7	-100.0%
TOTAL , ALL	553	437	-116	-21.0%

REGION	Graduates		Change FY08 - FY09	
	FY08	FY09	Numerical	Percentage
Northwest	137	105	-32	-23.4%
Northeast	57	48	-9	-15.8%
Central	74	71	-3	-4.1%
Twin Cities	221	162	-59	-26.7%
Southwest	33	16	-17	-51.5%
Southeast	31	35	4	12.9%
TOTAL	553	437	-116	-21.0%

2008 data from IPEDS, National Center for Education Statistics.¹¹ 2009 preliminary figures based on a survey of college programs. Minnesota State data in FY09 reflect an unduplicated headcount as there were 14 students who earned multiple awards.

¹¹ Included in IPEDS data, but not in this report, are 12 completers from a 20-week certificate program at Summit Academy Opportunities Industrialization Center (SAOIC). The Pre-Apprentice Electrician program is offered in conjunction with Dunwoody College of Technology. The first 10 weeks of training take place at SAOIC; students learn the basics of construction, including safety, hand and power tools and blue print reading. The final 10 weeks of training take place at Dunwoody.

There were regional variations in the change in the number of electrician program graduates in Greater Minnesota. The sharpest relative drop occurred in the southwest region. The Riverland program in the southeast region registered a small increase in the number of graduates as a higher percentage of enrolled students completed the program than a year earlier.

Apprenticeship Completers Another source of the supply of electricians is formal apprenticeship programs. As table 5 shows, the number of electrician apprenticeship completions in fiscal year 2009 increased by 24, or about 17 percent, from the previous year. The number of apprentices was about the same as the level in 2002, prior to the expansion of the construction sector. However, it was 122 or 43 percent below the peak number in 2005.

Table 5. Number of Apprenticeships Up Slightly

Fiscal Year	Apprenticeship Occupation		
	Construction Electrician	Maintenance Electrician	TOTAL
2002	151	9	160
2003	295	10	305
2004	204	4	208
2005	284	1	285
2006	208	0	208
2007	116	0	116
2008	136	2	138
2009	156	6	162

Source: Minnesota Department of Labor and Industry

Program Enrollment As shown in table 6, the number of new first-year electrician program students was down by 27 or 5 percent in the fall of 2009 compared to the previous year. The number of returning second year students dropped by 51 or over 11 percent from a year ago. This suggests that the total number of graduates will continue to drop in FY 2010, but not as much as in FY 2009. Not shown in the table, total electrician program enrollment at Dunwoody College of Technology was 116 in Fall 2009, a decrease of 55 students or 32 percent from a year ago. There are 9 students enrolled in the Leech Lake Tribal College electrician program in Fall 2009, compared to 19 last Fall.

Table 6. Total Enrollment in State College Electrician Programs Declined by 11 Percent from Previous School Year

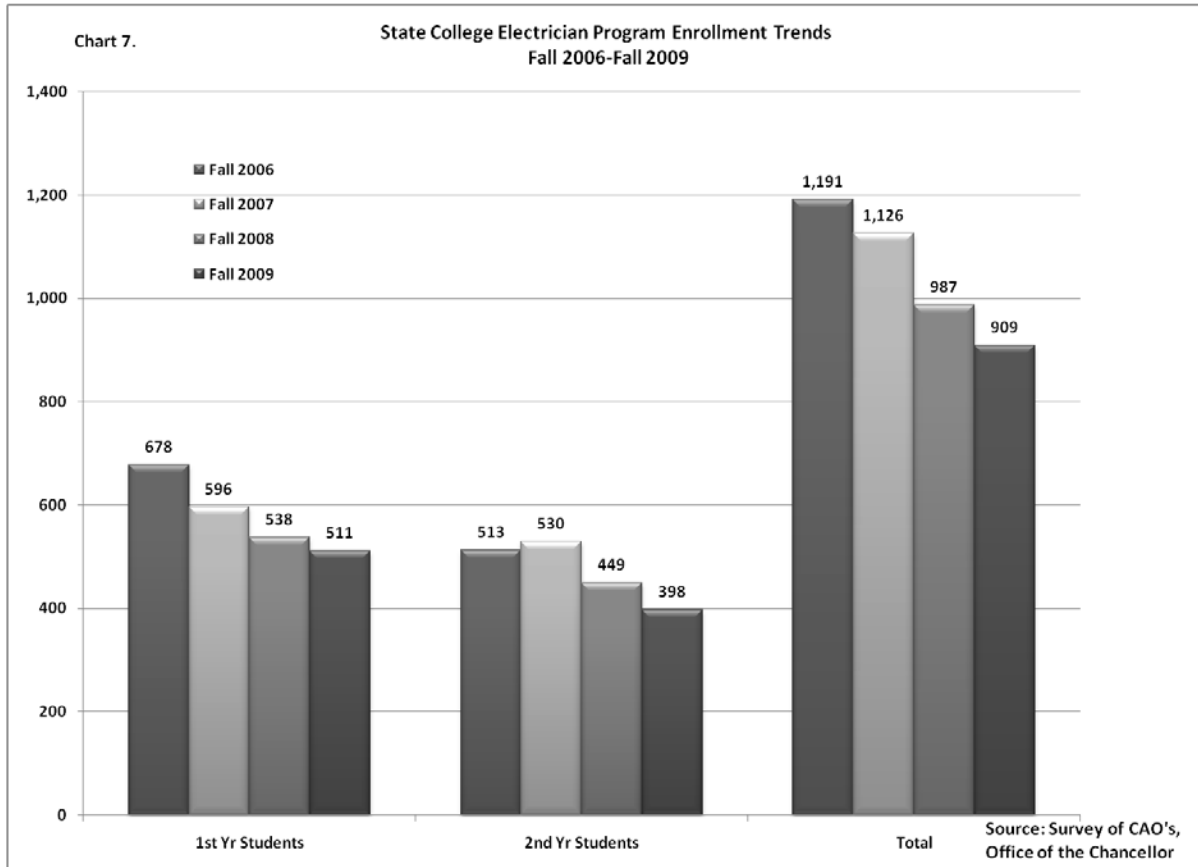
INSTITUTION	New 1st Yr Students		Returning 2nd Yr Students		Total Enrollment	
	Fall '08	Fall '09	Fall '08	Fall '09	Fall '08	Fall '09
Anoka	70	41	59	30	129	71
Dakota County*	44	40	26	34	70	74
Hibbing	28	30	26	25	54	55
Lake Superior	25	25	25	25	50	50
Minneapolis	11	18	14	8	25	26
Minnesota State	85	90	66	60	151	150
Minnesota West	47	50	20	35	67	85
Northland	36	40	26	29	62	69
Northwest	31	32	26	21	57	53
Ridgewater	28	31	26	22	54	53
Riverland	38	30	36	24	74	54
Saint Cloud	61	50	54	52	115	102
Saint Paul*	34	34	45	33	79	67
TOTAL	538	511	449	398	987	909
Numerical Change Fall '08 to Fall '09	-27		-51		-78	
Percent Change Fall '08 to Fall '09	-5.0%		-11.4%		-7.9%	

REGION	New 1st Yr Students		Returning 2nd Yr Students		Total Enrollment	
	Fall '08	Fall '09	Fall '08	Fall '09	Fall '08	Fall '09
Northwest	152	162	118	110	270	272
Northeast	53	55	51	50	104	105
Central	89	81	80	74	169	155
Twin Cities	159	133	144	105	303	238
Southwest	47	50	20	35	67	85
Southeast	38	30	36	24	74	54
TOTAL	538	511	449	398	987	909

Source: Survey of Chief Academic Officers conducted by the Office of the Chancellor during week of September 14, 2009

* New students: those students, who at the beginning of the semester identified in the chart, were either in the first or second semester of their program. "Returning students" were either in their third or fourth semester. MCTC Fall 2008 enrollment figure was revised, because it had included HVAC program enrollees.

Chart 7 displays the trend in electrician program enrollment at the 13 institutions in the Minnesota State Colleges and Universities system over the past four fall survey periods. The number of graduates in 2010 is very likely going to be in the range of 40-45 fewer than in 2009 due to the more moderate drop in the number of second-year students than between Fall 2007 and Fall 2008.



WAGES

Another way to determine if there is a shortage or surplus of workers is to track the rate and direction of the change in wages. If there is a shortage, the wage level should increase at a faster than average rate to attract workers to move to the area or to persuade them to enter the field. If there is not a shortage, wage levels will increase at a slower than average rate or even decline.

The following three charts are based on statewide data for electricians and on statewide and regional data for the electrical contractor industry which employs about 75 percent of all electricians. Chart 8 shows both inflation-adjusted (real) wages and non-inflation-adjusted wages (actual). The 2008 median wage level for electricians in Minnesota is \$27.67, considerably higher than the median wage for all occupations, \$16.87. Median wages for electricians increased slightly in 2008 after dropping for two second consecutive years. Chart 8 shows a lack of upward pressure on wages for electricians that is indicative of a surplus situation. Inflation-adjusted wages for electricians have declined in five consecutive years. By way of comparison, overall wages have grown at nearly the same rate as inflation as measured by the Consumer Price Index for All Urban Consumers (CPI-U) until 2008. The faster rate of inflation last year (3.9%) eroded the modest overall wage gain, resulting in a nearly 2 percent decline in real wages.

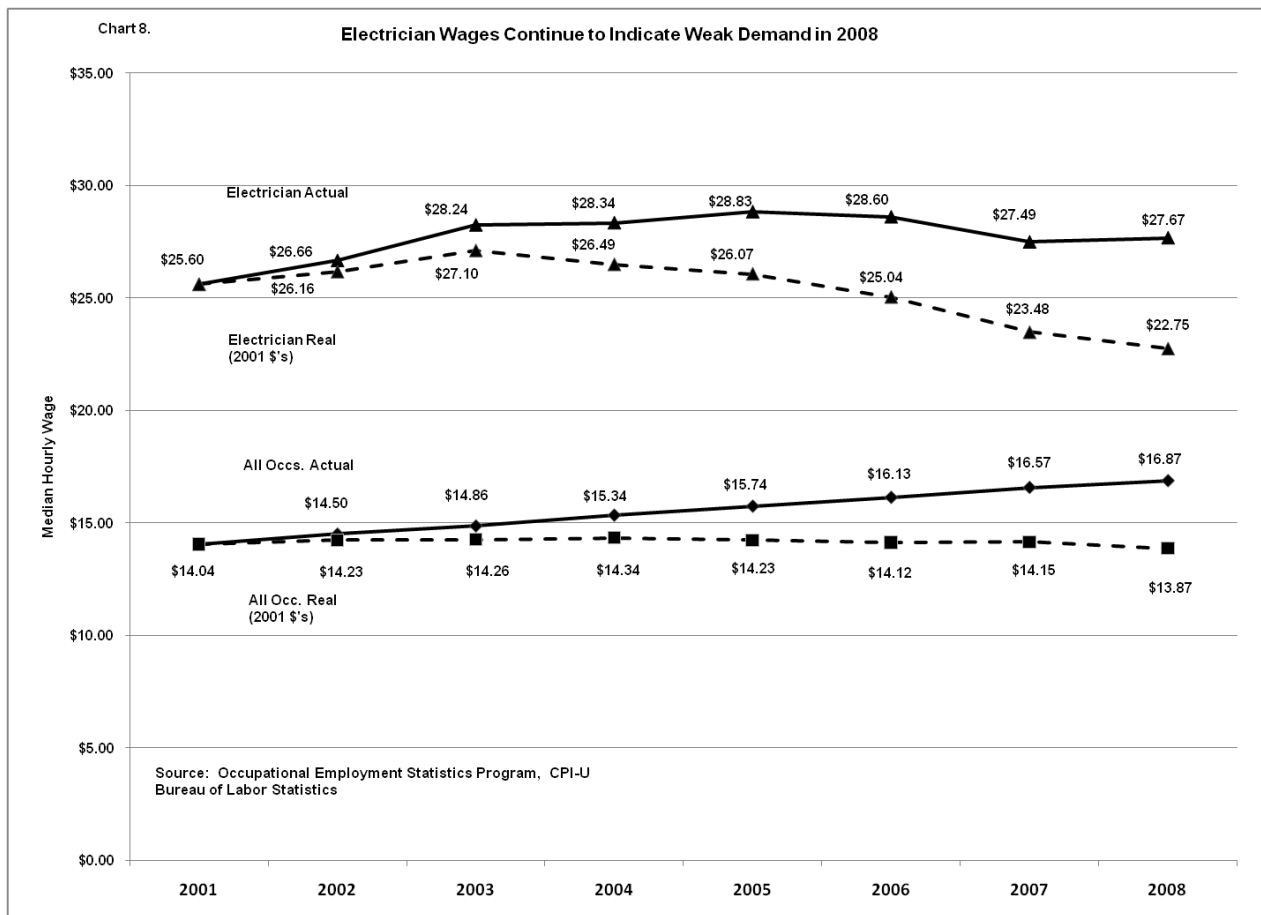
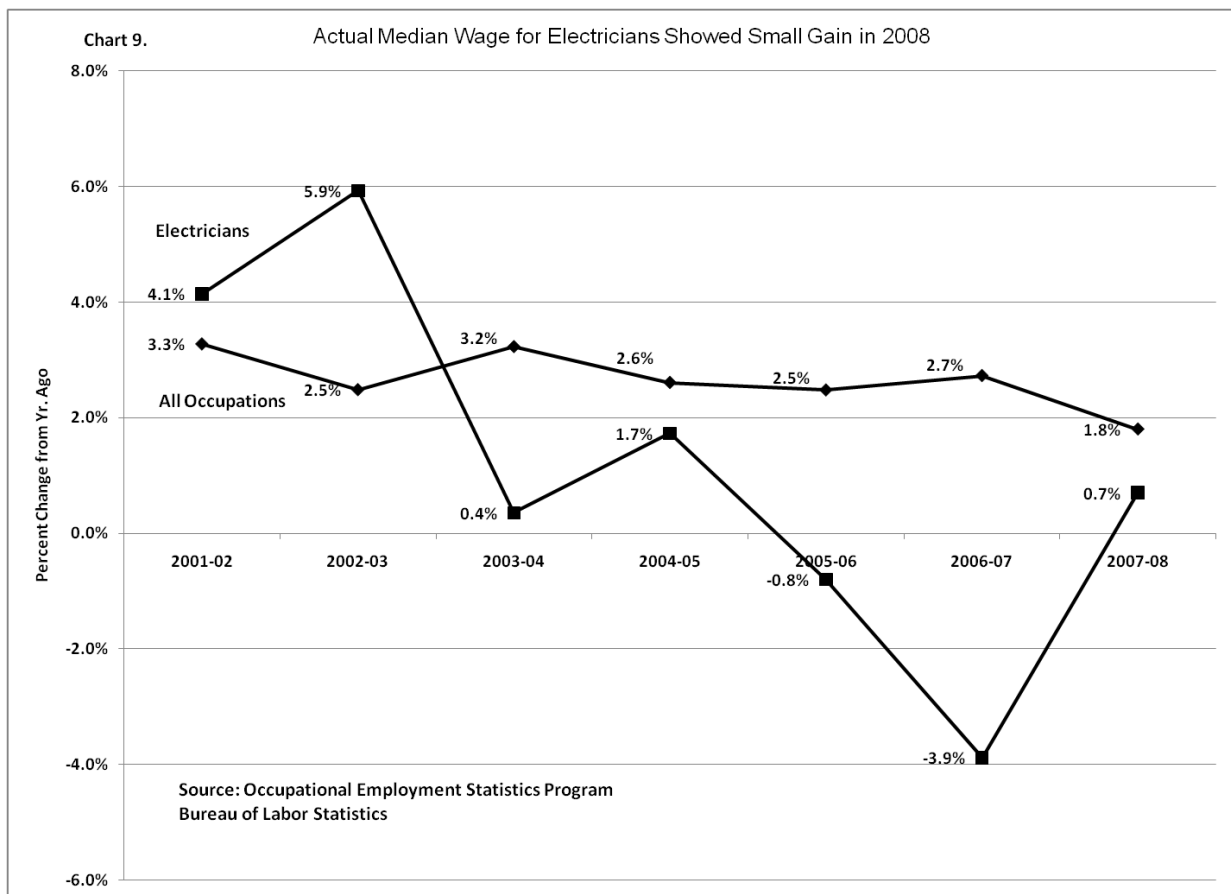


Chart 9 shows the impact of weakening demand for electricians on the year-to-year change in median wage level. In the early part of the decade, construction activity was booming and electrician's wages were increasing annually by 4 to 6 percent. As demand weakened in non-residential building, electrician wage growth downshifted abruptly to only 0.4 percent and 1.7 percent between 2003 and 2005. As the slowdown in demand has continued with cutbacks in new residential construction, the median wage for electricians has declined over-the-year by -0.8 percent and -3.9 percent in 2006 and 2007. The 0.7 percent increase in 2008 indicates some improvement compared to earlier years. However, a 0.7 percent growth is still much below the 3.9 percent rate of inflation. Also the salary survey data were collected in the first half of 2008 before the financial crisis hit.



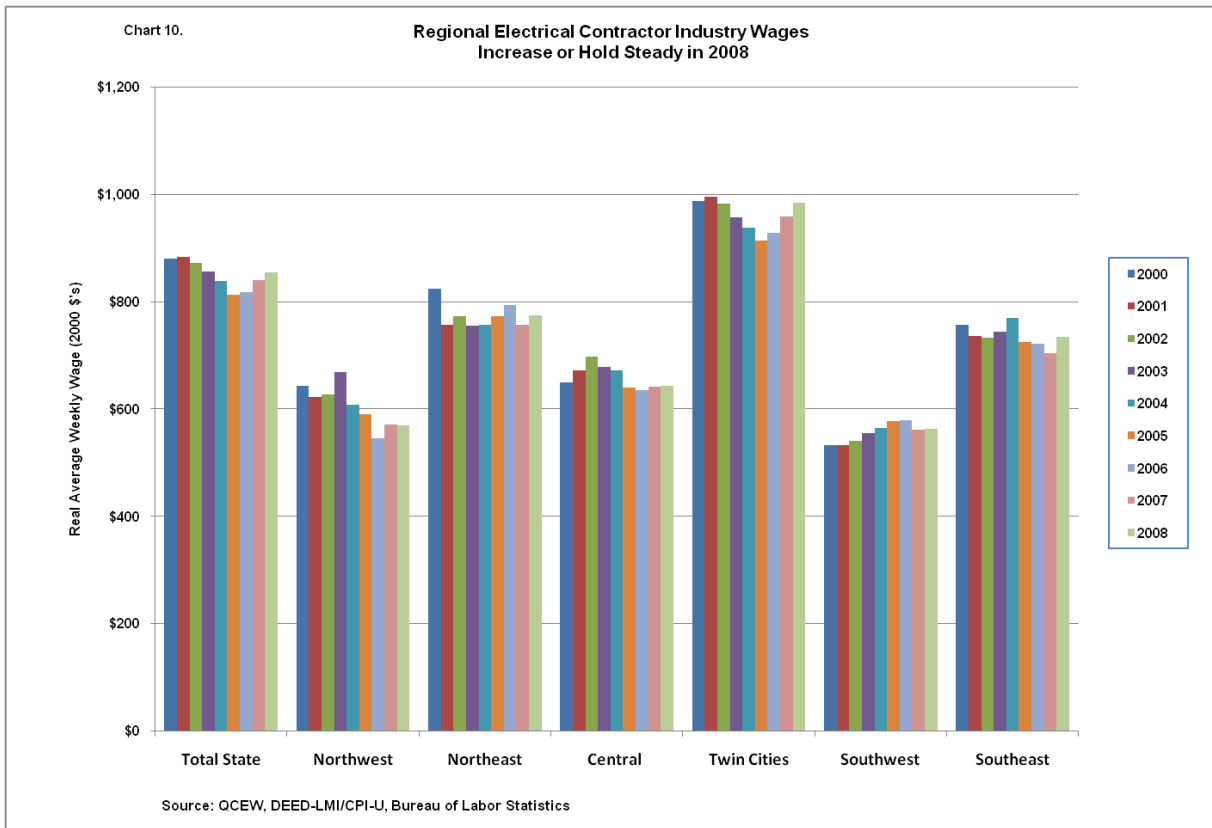


Chart 10, above, compares real average weekly wages paid to all workers in the electrical contractor industry statewide and in six planning regions. In 2008 there was a mixed trend with half of the regions experiencing an increase in real wages and the other half experiencing no change. The Twin Cities 2008 industry wage data showed growth for the third consecutive year, but this probably reflects the ongoing retrenchment of employment to a core of experienced, higher paid workers. In the past, wages in the southwest region have run counter to the statewide downward trend. In 2008, real industry wages held steady for the second consecutive year. Real wages in the northwest region have shown the greatest relative drop over the 2000-2007 period, declining by 11 percent, followed by the northeast region with an 8 percent drop in real wages.

SUPPLY-DEMAND COMPARISON

The initial study of supply/demand conditions for electricians done in the spring of 2007 showed an estimated surplus of 575 electricians. The report released in October 2007 estimated the surplus at 428, while there was an estimated surplus of 468 in last year's report. Table 7 shows a surplus of over 1,400 electricians in the state based on the supply-demand comparison using the most recent job opening projections¹², job vacancy survey, unemployment insurance, and 2009 program graduate data collected via a survey of colleges.

Unlike a year ago, no regions of the state are experiencing a shortage of electricians this fall. The degree of surplus varies depending on the region of the state. The southwest region's estimate shows a surplus of 35 compared to a small shortage of -11 last year. The ratio of supply to demand in the southwest region increased relatively rapidly in the past year. It has gone from 0.7 in 2008 to a comparatively low 2.3 this year. The surplus in the Twin Cities region has increased the most of any region, going from 193 last year to 646 this year. The central region has the second largest estimated surplus, as well as the highest ratio of supply to demand. The estimated surpluses in the northwest, northeast and southeast increased but not to the extent found in the Twin Cities or Central regions.

Table 7. The Estimated Surplus of Electricians More than Doubled from a Year Ago

Region	2009 Estimated Employment	Demand	Supply				Difference Between Total Supply and Estimated Annual Demand	Total Supply per Opening
		2009-2019 Average Total Openings Due to Growth and Replacement plus Vacancies	Region's 2009 Electrical Program Graduates	2009 Graduates Adjusted for Migration*	Adjusted Unemployed**	Total Supply***		
Northwest	1,066	41	117	65	105	171	130	4.2
Northeast	962	26	49	30	88	118	91	4.4
Central	1,388	50	70	62	353	415	366	8.4
TC Metro	5,792	164	165	199	611	810	646	4.9
Southwest	850	28	16	15	48	63	35	2.3
Southeast	1,200	36	35	27	155	182	147	5.1
Statewide	11,258	345	452	398	1,361	1,758	1,414	5.1

* 2009 electrician program graduates adjusted by FY1998-FY2004 regional average percentages working in Minnesota and relocating to other regions within the state. Some graduates work outside of Minnesota.

** The number of unemployed electricians in excess of a 4% unemployment rate for electricians in each region. This is calculated by multiplying the estimated regional electrician employment by .04 and subtracting that number from the 12-month moving average number of electricians receiving Unemployment Insurance.

*** 2009 electrician program graduates plus adjusted unemployed.

¹² Projected openings used in the demand calculation for this year's and last year's reports are based on Strategic Advantage projections for the State and all regions. The 2007 report's calculations used DEED-LMI statewide projected openings for 2006-2016, and estimated the 2006-2016 regional openings by applying each region's share of total state projected openings from the 2004-2014 round of projections to the 2006-2016 statewide projections.

Related Employment Rate Data collected from the Minnesota State Colleges and Universities Graduate Follow-up Survey provide another indicator of the supply and demand conditions for electricians. Table 8 generally reaffirms other data presented throughout this report that labor market indicators for electricians have weakened in the past year. The statewide related employment rate was the lowest in the past seven years, 76.9 percent. The data also vividly show the greater weakness in the Twin Cities region job market than in Greater Minnesota, as the rate for Twin Cities' graduates, 64.5 percent, was 17 percentage points lower than the rate for graduates from programs in Greater Minnesota, 81.5 percent.

Although the overall related employment rate increased at all four Twin Cities programs, the 2008 levels were noticeably stronger in the suburban programs than those in Minneapolis and St. Paul. The related employment rate for 2008 graduates of electrician programs at public colleges located in the Minneapolis-St. Paul region averaged 64.5 percent, over 2.5 percentage points higher than the 2007 graduates' related employment rate, 62.0 percent. However, the related employment rate for the two suburban programs at Anoka Technical College and Dakota County Technical College averaged 82.1 percent, while the downtown programs' related employment rates averaged, 51.9 percent.

While the Greater Minnesota program graduates generally fared better than those in the Twin Cities, the 2008 graduates of electrician programs in the central and northern Minnesota had a somewhat harder time finding related employment compared to previous years. The related employment rate for 2008 graduates from St. Cloud Technical College was 87.5 percent, a decrease of 10.9 percentage points from the 2007 graduates' related employment rate. Ridgewater electrician program graduates also fared somewhat worse in finding work in the year after graduation as the related employment rate dropped from 100 percent in 2007 to 92.3 percent in 2008.

The related employment rate for 2008 graduates of the three programs in the northwest region (Minnesota State, Northland and Northwest) was 90.8 percent. This is very good, but was a 6.8 percentage point drop from the previous year's class. The related employment rate for 2008 graduates from the two colleges in northeastern Minnesota, Hibbing Community College and Lake Superior College, was only 36.6 percent, a decrease of 34 percentage points from the 2007 graduates' related employment rate.

On the other hand, the 2008 graduates of electrician programs located at colleges in southern Minnesota generally had a better related employment rate than the previous year's graduates which were already very good. The related employment rate for 2008 graduates from Minnesota West Community & Technical was 93.3 percent, an increase of 3.3 percentage points from the 2007 graduates' related employment rate. The related employment rate for 2008 graduates from Riverland Community College rebounded to 88.9 percent, an increase of 16.4 percentage points from the 2007 graduates' related employment rate.

Table 8.

2008 Related Employment Rate Confirms Weak Hiring in Twin Cities
and Mixed Conditions in Greater Minnesota

Institution	Electrician Program CIP 46.0302													
	Awards							Related Employment Rate						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Anoka	77	65	64	72	49	55	41	89.2%	78.7%	92.0%	94.2%	87.5%	68.6%	80.0%
Dakota County				28	28	17	29				90.0%	81.8%	60.0%	88.9%
Hibbing	33	42	44	37	34	34	32	59.3%	69.0%	50.0%	76.9%	69.2%	66.7%	25.0%
Lake Superior	21	14	25	25	23	19	25	66.7%	100.0%	100.0%	100.0%	94.4%	80.0%	52.9%
Minneapolis	32	29	12	8	20	12	17	95.8%	66.7%	62.5%	100.0%	80.0%	85.7%	70.0%
Minnesota State	66	84	90	101	79	65	79	97.4%	97.5%	93.3%	92.6%	93.2%	96.6%	92.1%
Minnesota West	40	46	52	37	35	31	33	98.6%	76.9%	83.0%	97.1%	100.0%	90.0%	93.3%
Northland	16	12	16	12	21	27	31	100.0%	100.0%	100.0%	100.0%	92.3%	100.0%	95.0%
Northwest	4	24	13	3	12	12	21	98.6%	80.0%	20.0%	50.0%	88.9%	100.0%	76.9%
Ridgewater	17	28	25	22	23	24	20	100.0%	100.0%	100.0%	90.0%	100.0%	100.0%	92.3%
Riverland	57	58	61	52	51	43	31	90.2%	82.4%	79.2%	87.5%	90.9%	72.5%	88.9%
Saint Paul	71	43	38	28	29	35	54	83.3%	76.3%	74.3%	80.0%	73.7%	44.8%	47.7%
St. Cloud	38	42	53	51	56	44	55	90.0%	100.0%	84.8%	91.8%	96.2%	97.6%	86.0%
Total:	472	487	493	476	460	418	468	91.0%	86.0%	81.9%	90.9%	90.1%	81.8%	76.9%
Planning Region	Electrician Program CIP 46.0302													
	Awards							Related Employment Rate						
	2002	2003	2004	2005	2006	2007	2008	2002	2003	2004	2005	2006	2007	2008
Northwest	86	120	119	116	112	104	131	98.4%	96.8%	86.7%	91.8%	92.6%	97.6%	90.8%
Northeast	54	56	69	62	57	53	57	61.9%	77.5%	63.0%	87.5%	79.5%	70.6%	36.6%
Central	55	70	78	73	79	68	75	88.5%	100.0%	89.9%	91.3%	97.1%	98.4%	87.5%
Mpls.-St. Paul	180	137	114	136	126	119	141	90.5%	74.0%	82.8%	90.1%	82.5%	62.0%	64.5%
Southwest	40	46	52	37	35	31	33	98.6%	76.9%	83.0%	97.1%	100.0%	90.0%	93.3%
Southeast	57	58	61	52	51	43	31	90.2%	82.4%	79.2%	87.5%	90.9%	72.5%	88.9%
Total:	472	487	493	476	460	418	468	91.0%	87.3%	81.9%	90.9%	90.1%	81.8%	76.9%

SUMMARY

This paper has reviewed available labor market indicators of supply and demand for electricians in Minnesota and its sub-state regions as of the third quarter of 2009. Already difficult conditions for electricians got worse in the past year as the worst recession in the past 70 years took its toll on the job market. The demand for electricians continues to decline, particularly in the Twin Cities area, because of the adverse conditions facing new residential and commercial construction. Difficult conditions are projected to continue into at least the first half of next year.

On the supply side, unemployment continues to rise. The number of students enrolled in electrician programs is contracting in response to demand and the number of graduates is likely to decline next spring, although not by as much as it did this year. The greatest imbalance in supply and demand is in the Twin Cities region and the adjacent central region. Meanwhile the southwest, southeast, and northwest regions seem to be faring somewhat better due to connections to companies in border states and/or in non-construction industries where there is a demand for electricians, such as wind energy.

Wage trends also confirm that there is no shortage of electricians. While the median wage for electricians is still considerably higher than the median wage for all occupations, wage growth has not kept pace with inflation for five consecutive years.