

## **Market Analysis for Maintenance Technology**

*Prepared by the Office of Research  
Teaming to Serve Research Needs of the College  
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## Introduction

There are 14 local two-year colleges that compete with Harper College's Maintenance Technology program. Included in this report is a list of competitor colleges that offer a similar program. In addition, local, state, and national employment projections and wage data for related positions are provided. The list of competitor colleges within a 50 mile radius was obtained through the IPEDS – COOL website (<http://www.nces.ed.gov/ipeds/cool>) and college-specific program information was obtained from each identified college's website.

**Table 1: Maintenance Technology Competitor Colleges (within 50 mile radius)**

Major Competitor	Length of Program	Credit hour
Richard J. Daley College (City College of Chicago) – Chicago, IL	<b>AAS</b> – Manufacturing Technology: Maintenance Mechanic, credits N/A. <b>Certificate</b> – Manufacturing Technology: Maintenance Mechanic, credits N/A.	\$72/credit; \$189.95/credit (out-of-district)
Wilbur Wright College (City College of Chicago) – Chicago, IL	<b>Certificate</b> – Building Energy Technologies, 21 credits.	\$72/credit; \$189.95/credit (out-of-district)
College of DuPage – Glen Ellyn, IL	<b>AAS</b> – Facility Management, 64 credits. <b>AAS</b> – Manufacturing Technology, 64 credits. <b>Certificate</b> – Manufacturing Technology, 34 credits. <b>Certificate</b> – Facility Management Technician, 18 credits. <b>Certificate</b> – Facility Management General, 15 credits.	\$103/credit; \$292/credit (out-of-district)
College of Lake County – Grayslake, IL	<b>Certificate</b> – Welding, 35-38 credits. <b>Certificate</b> – Gas Tungsten Arc Welding, 18-20 credits. <b>Certificate</b> – Shielded Metal Arc Welding, 18-20 credits. <b>Certificate</b> – Gas Metal Arc Welding, 15-17 credits.	\$90/credit; \$215/credit (out-of-district)
Elgin Community College – Elgin, IL	<b>AAS</b> – Welding Fabrication Technology, 60 credits. <b>Certificate</b> – Welding, 33 credits. <b>Basic Certificate</b> – Welding, 16 credits.	\$91/credit; \$359.30/credit (out-of-district)
Joliet Junior College – Joliet, IL	<b>Certificate</b> – Industrial Welding Technology, 30 credits.	\$76/credit; \$232.77/credit (out-of-district)
Kishwaukee College – Malta, IL	<b>Certificate</b> – Welding Technology, 15 credits. <b>Certificate</b> – Building Construction Technology, 13 credits.	\$75/credit; \$261.49/credit (out-of-district)
McHenry Community College – Crystal Lake, IL	<b>AAS</b> – Manufacturing Management, 63 credits. <b>Certificate</b> – Manufacturing Supervision, 26 credits.	\$80/credit; \$277.58/credit (out-of-district)

N/A=Not Available

**Table 1: Continued**

<b>Major Competitor</b>	<b>Length of Program</b>	<b>Credit hour</b>
Moraine Valley Community College – Palos Hills, IL	<b>Certificate</b> – Advanced Welding, 33 credits. <b>Certificate</b> – Combination Welding, 26 credits. <b>Certificate</b> – Pipe Welding, 18 credits. <b>Certificate</b> – Multi-Purpose Welding, 9 credits. <b>Certificate</b> – Shielded Metal Arc Welding, 9 credits. <b>Certificate</b> – Individualized Welding, 8 credits.	\$72/credit; \$204/credit (out-of-district)
Oakton Community College – Des Plaines, IL	<b>AAS</b> – Facilities Energy Systems Technology, 60 credits. <b>AAS</b> – Facilities Management, 60 credits. <b>Certificate</b> – Facilities Management, 32 credits. <b>Certificate</b> – Facilities Energy Systems Technology, 31 credits.	\$84.60/credit; \$236.46/credit (out-of-district)
Prairie State College – Chicago Heights, IL	<b>Certificate</b> – Welder Apprentice, 34 credits.	\$87/credit; \$244/credit (out-of-district)
South Suburban College – South Holland, IL	<b>Certificate</b> – Home Maintenance, 18 credits. <b>Certificate</b> – Building Rehabilitation, 15 credits.	\$103.75/credit; \$281.75/credit (out-of-district)
Triton College – River Grove, IL	<b>AAS</b> – Welding and Fabrication, 65 credits. <b>Certificate</b> – Welding and Fabrication, 28-29 credits. <b>Certificate</b> – MIG & TIG Welding, 16 credits.	\$61/credit; \$179.80/credit (out-of-district)
Waubonsee Community College – Sugar Grove, IL	<b>AAS</b> – Welding, 64 credits. <b>Certificate</b> – Advanced Welding, 37 credits. <b>Certificate</b> – Facility Service Technology, 30 credits. <b>Certificate</b> – Beginning Welding, 16 credits.	\$75/credit; \$224.61/credit (out-of-district)

**Table 2: Maintenance Technology Employment Projections**

Chicago PMSA*		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupational Title	2004 Number	2014 Number	2004 – 2014 Number	% Change	Due to New	Due to Replacements	Average Yearly Total
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	6,445	7,571	1,125	17.46	113	157	265
47-2031	Carpenters	31,546	35,846	4,300	13.63	430	514	944
47-2111	Electricians	18,647	21,546	2,899	15.55	290	369	659
47-2152	Plumbers, Pipefitters, and Steamfitters	13,558	16,247	2,689	19.83	269	312	581
49-9042	General Maintenance and Repair Workers	34,001	36,782	2,781	8.18	278	653	931
49-9099	Installation, Maintenance, and Repair Workers, All Other	4,239	4,479	240	5.65	24	96	120
51-4121	Welders, Cutters, Solderers, and Brazers	7,943	8,020	77	0.97	8	224	232

\*Employment projections are from <http://www.ilworkinfo.com>

**Table 2: Continued**

Cook County*		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupational Title	2004 Number	2014 Number	2004 – 2014 Number	% Change	Due to New	Due to Replacements	Average Yearly Total
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	4,587	5,362	775	16.89	77	108	185
47-2031	Carpenters	19,490	22,224	2,734	14.03	273	318	591
47-2111	Electricians	10,830	12,691	1,861	17.18	186	214	400
47-2152	Plumbers, Pipefitters, and Steamfitters	7,858	9,568	1,710	21.76	171	181	352
49-9042	General Maintenance and Repair Workers	23,640	25,638	1,999	8.45	200	454	654
49-9099	Installation, Maintenance, and Repair Workers, All Other	2,731	2,891	160	5.87	16	62	78
51-4121	Welders, Cutters, Solderers, and Brazers	5,002	5,047	45	0.91	5	141	146

\*Employment projections are from <http://www.ilworkinfo.com>

**Table 2: Continued**

DuPage County*		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupational Title	2004 Number	2014 Number	2004 – 2014 Number	% Change	Due to New	Due to Replacements	Average Yearly Total
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	958	1,186	228	23.82	23	23	46
47-2031	Carpenters	5,133	5,963	830	16.18	83	84	167
47-2111	Electricians	3,427	4,061	634	18.50	63	68	131
47-2152	Plumbers, Pipefitters, and Steamfitters	2,528	3,090	562	22.24	56	58	114
49-9042	General Maintenance and Repair Workers	5,231	5,806	575	10.99	57	100	157
49-9099	Installation, Maintenance, and Repair Workers, All Other	807	866	59	7.32	6	18	24
51-4121	Welders, Cutters, Solderers, and Brazers	1,393	1,423	30	2.17	3	39	42

\*Employment projections are from <http://www.ilworkinfo.com>

**Table 2: Continued**

Lake County*		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupational Title	2004 Number	2014 Number	2004 – 2014 Number	% Change	Due to New	Due to Replacements	Average Yearly Total
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	602	728	126	20.99	13	14	27
47-2031	Carpenters	2,994	3,408	413	13.80	41	49	90
47-2111	Electricians	1,647	1,895	248	15.05	25	33	58
47-2152	Plumbers, Pipefitters, and Steamfitters	1,215	1,450	235	19.32	23	28	51
49-9042	General Maintenance and Repair Workers	3,137	3,379	242	7.70	24	60	84
49-9099	Installation, Maintenance, and Repair Workers, All Other	375	401	26	6.92	3	9	12
51-4121	Welders, Cutters, Solderers, and Brazers	610	626	16	2.60	2	17	19

\*Employment projections are from <http://www.ilworkinfo.com>

**Table 2: Continued**

McHenry County*		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupational Title	2004 Number	2014 Number	2004 – 2014 Number	% Change	Due to New	Due to Replacements	Average Yearly Total
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	162	177	15	9.41	2	4	6
47-2031	Carpenters	1,627	1,871	243	14.96	24	27	51
47-2111	Electricians	1,032	1,187	155	14.99	15	20	35
47-2152	Plumbers, Pipefitters, and Steamfitters	750	896	146	19.48	15	17	32
49-9042	General Maintenance and Repair Workers	965	990	25	2.59	2	19	21
49-9099	Installation, Maintenance, and Repair Workers, All Other	155	161	6	4.00	1	3	4
51-4121	Welders, Cutters, Solderers, and Brazers	375	365	-10	-2.67	-1	11	10

\*Employment projections are from <http://www.ilworkinfo.com>



**Table 2: Continued**

Statewide*		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupation Title	2004 Number	2014 Number	2004 – 2014 Number	% Change	Due to New	Due to Replacements	Average Yearly Total
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	10,091	11,730	1,639	16.24	164	238	402
47-2031	Carpenters	51,126	56,741	5,615	10.98	562	832	1,394
47-2111	Electricians	29,344	32,982	3,638	12.40	364	580	944
47-2152	Plumbers, Pipefitters, and Steamfitters	20,883	24,314	3,431	16.43	343	480	823
49-9042	General Maintenance and Repair Workers	54,022	57,919	3,897	7.21	390	1,037	1,427
49-9099	Installation, Maintenance, and Repair Workers, All Other	6,656	6,992	336	5.05	34	151	185
51-4121	Welders, Cutters, Solderers, and Brazers	14,401	14,545	144	1.00	14	407	421

\*Employment projections are from <http://www.ilworkinfo.com>

**Table 2: Continued**

National**		Employment		Employment Change		Average Yearly Job Openings		
SOC CODE	Occupational Title	2004 Number	2014 Number	2004 – 2014 Change	% Change	Due to New	Due to Replacements	Average Yearly Total***
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	235,851	280,644	44,793	19.0	N/A	N/A	10,000
47-2031	Carpenters	1,349,034	1,534,617	185,583	13.8	N/A	N/A	41,000
47-2111	Electricians	656,227	733,697	77,470	11.8	N/A	N/A	21,000
47-2152	Plumbers, Pipefitters, and Steamfitters	498,555	576,612	78,057	15.6	N/A	N/A	19,000
49-9042	General Maintenance and Repair Workers	1,331,680	1,533,473	201,793	15.2	N/A	N/A	46,000
49-9099	Installation, Maintenance, and Repair Workers, All Other	177,844	197,479	19,635	11.0	N/A	N/A	6,000
51-4121	Welders, Cutters, Solderers, and Brazers	376,961	395,869	18,908	5.0	N/A	N/A	13,000

\*\*Employment projections are from <http://www.bls.gov>

\*\*\*Estimate of average yearly job opening due to new jobs and net replacement needs.

**Table 3: Maintenance Technology Wage Data**

Chicago PMSA\*

SOC CODE	Occupational Title	Entry Wage		Median Wage		Experienced Wage	
		Hourly	Annual	Hourly	Annual	Hourly	Annual
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$11.31	\$23,537	\$16.62	\$34,579	\$21.41	\$44,537
47-2031	Carpenters	\$15.51	\$32,274	\$27.22	\$56,615	\$30.84	\$64,154
47-2111	Electricians	\$20.19	\$42,002	\$29.18	\$60,692	\$33.01	\$68,659
47-2152	Plumbers, Pipefitters, and Steamfitters	\$17.49	\$36,368	\$32.76	\$68,138	\$36.60	\$76,139
49-9042	General Maintenance and Repair Workers	\$12.07	\$25,104	\$18.85	\$39,219	\$23.01	\$47,854
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$10.56	\$21,955	\$18.54	\$38,547	\$23.41	\$48,679
51-4121	Welders, Cutters, Solderers, and Brazers	\$11.71	\$24,359	\$16.33	\$33,974	\$20.06	\$41,726

\*State wage information from <http://www.ilworkinfo.com> (as of 1st quarter of 2006)

**Table 3: Continued**

Cook County*							
SOC CODE	Occupational Title	Entry Wage		Median Wage		Experienced Wage	
		Hourly	Annual	Hourly	Annual	Hourly	Annual
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$11.93	\$24,812	\$16.99	\$35,329	\$21.54	\$44,800
47-2031	Carpenters	\$15.77	\$32,788	\$26.81	\$55,755	\$30.77	\$64,012
47-2111	Electricians	\$21.07	\$43,829	\$31.45	\$65,433	\$34.73	\$72,232
47-2152	Plumbers, Pipefitters, and Steamfitters	\$16.20	\$33,681	\$33.31	\$69,270	\$36.85	\$76,639
49-9042	General Maintenance and Repair Workers	\$12.10	\$25,169	\$18.99	\$39,508	\$23.43	\$48,730
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$9.74	\$20,240	\$17.36	\$36,106	\$24.20	\$50,346
51-4121	Welders, Cutters, Solderers, and Brazers	\$11.30	\$23,486	\$15.95	\$33,179	\$19.52	\$40,608

\*State wage information from <http://www.ilworkinfo.com> (as of 1st quarter of 2006)

**Table 3: Continued**

DuPage County\*

SOC CODE	Occupational Title	Entry Wage		Median Wage		Experienced Wage	
		Hourly	Annual	Hourly	Hourly	Annual	Hourly
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$10.75	\$22,373	\$15.58	\$32,417	\$20.87	\$43,411
47-2031	Carpenters	\$16.06	\$33,419	\$26.81	\$55,763	\$30.29	\$62,994
47-2111	Electricians	\$18.17	\$37,795	\$22.29	\$46,365	\$29.22	\$60,780
47-2152	Plumbers, Pipefitters, and Steamfitters	\$22.20	\$46,175	\$33.05	\$68,753	\$36.66	\$76,270
49-9042	General Maintenance and Repair Workers	\$11.77	\$24,473	\$18.76	\$39,015	\$22.57	\$46,947
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$12.41	\$25,809	\$19.73	\$41,023	\$22.54	\$46,882
51-4121	Welders, Cutters, Solderers, and Brazers	\$11.87	\$24,683	\$15.09	\$31,383	\$18.65	\$38,808

\*State wage information from <http://www.ilworkinfo.com> (as of 1st quarter of 2006)

**Table 3: Continued**

<b>Lake County*</b>		<b>Entry Wage</b>		<b>Median Wage</b>		<b>Experienced Wage</b>	
<b>SOC CODE</b>	<b>Occupational Title</b>	<b>Hourly</b>	<b>Annual</b>	<b>Hourly</b>	<b>Hourly</b>	<b>Annual</b>	<b>Hourly</b>
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$14.13	\$29,381	\$24.09	\$50,098	\$26.66	\$55,457
47-2031	Carpenters	\$18.55	\$38,584	\$29.81	\$62,005	\$34.15	\$71,028
47-2111	Electricians	\$19.61	\$40,788	\$28.13	\$58,514	\$35.54	\$73,931
47-2152	Plumbers, Pipefitters, and Steamfitters	\$20.70	\$43,060	\$31.54	\$65,587	\$34.97	\$72,748
49-9042	General Maintenance and Repair Workers	\$12.51	\$26,026	\$18.03	\$37,503	\$21.97	\$45,702
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$14.08	\$29,278	\$17.14	\$35,665	\$22.15	\$46,073
51-4121	Welders, Cutters, Solderers, and Brazers	\$10.01	\$20,820	\$13.59	\$28,257	\$16.92	\$35,195

\*State wage information from <http://www.ilworkinfo.com> (as of 1st quarter of 2006)

**Table 3: Continued**

McHenry County\*

SOC CODE	Occupational Title	Entry Wage		Median Wage		Experienced Wage	
		Hourly	Annual	Hourly	Annual	Hourly	Annual
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$14.62	\$30,409	\$19.13	\$39,804	\$21.61	\$44,943
47-2031	Carpenters	\$17.04	\$35,439	\$22.97	\$47,779	\$27.29	\$56,766
47-2111	Electricians	\$22.75	\$47,316	\$27.42	\$57,031	\$31.07	\$64,624
47-2152	Plumbers, Pipefitters, and Steamfitters	\$23.93	\$49,772	\$36.02	\$74,934	\$38.18	\$79,423
49-9042	General Maintenance and Repair Workers	\$16.27	\$33,836	\$19.64	\$40,857	\$20.99	\$43,663
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$16.64	\$34,623	\$20.68	\$43,009	\$22.21	\$46,200
51-4121	Welders, Cutters, Solderers, and Brazers	\$13.01	\$27,046	\$17.82	\$37,073	\$20.87	\$43,408

\*State wage information from <http://www.ilworkinfo.com> (as of 1st quarter of 2006)

**Table 3: Continued**

Statewide*							
SOC CODE	Occupational Title	Entry Wage		Median Wage		Experienced Wage	
		Hourly	Annual	Hourly	Hourly	Annual	Hourly
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$10.75	\$22,365	\$16.11	\$33,519	\$20.86	\$43,403
47-2031	Carpenters	\$14.58	\$30,330	\$24.97	\$51,950	\$29.37	\$61,093
47-2111	Electricians	\$18.97	\$39,472	\$27.52	\$57,227	\$32.00	\$66,565
47-2152	Plumbers, Pipefitters, and Steamfitters	\$17.52	\$36,442	\$31.17	\$64,832	\$35.14	\$73,080
49-9042	General Maintenance and Repair Workers	\$11.20	\$23,291	\$17.72	\$36,858	\$21.91	\$45,585
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$10.39	\$21,613	\$18.40	\$38,277	\$22.52	\$46,852
51-4121	Welders, Cutters, Solderers, and Brazers	\$11.43	\$23,774	\$15.59	\$32,431	\$18.81	\$39,129

\*State wage information from <http://www.ilworkinfo.com> (as of 1st quarter of 2006)



**Table 3: Continued**

<b>National**</b>					
<b>SOC CODE</b>	<b>Occupational Title</b>	<b>Median Hourly</b>	<b>Mean Hourly</b>	<b>Mean Annual</b>	<b>Mean RSE***</b>
37-1011	First-Line Supervisors/Managers of Housekeeping and Janitorial Workers	\$15.04	\$16.16	\$33,610	0.3%
47-2031	Carpenters	\$17.57	\$19.20	\$39,930	0.3%
47-2111	Electricians	\$20.97	\$22.41	\$46,620	0.5%
47-2152	Plumbers, Pipefitters, and Steamfitters	\$20.56	\$22.03	\$45,830	0.5%
49-9042	General Maintenance and Repair Workers	\$15.34	\$16.11	\$33,510	0.2%
49-9099	Installation, Maintenance, and Repair Workers, All Other	\$15.84	\$17.10	\$35,560	0.6%
51-4121	Welders, Cutters, Solderers, and Brazers	\$15.10	\$15.81	\$32,880	0.3%

\*\*National wage information from <http://www.bls.gov> (as of May 2006)

\*\*\*RSE – Relative Standard Error