

Workforce Needs Survey

2008-2009



- Service Sales Growth
- Demand for Quality Technicians
- Wages and Labor Rates
- Partnerships with Technical Schools
- Entry-Level Technician Qualifications
- Dealer Hiring Practices

2008 – 2009 WORKFORCE NEEDS SURVEY

Purpose & Methodology



This is the fifth edition of AED's annual Workforce Needs Survey, focusing on the status of the equipment dealer technician workforce and recruitment efforts. This year's survey was conducted in a different economic and industry climate than previous surveys. A key finding in this survey is that, despite an industry downturn, and though severity of the downturn varies regionally, the technician shortage remains a significant industry challenge. That is true for both entry-level and journeyman technicians.

In some regional areas, poor business conditions have resulted in numerous technician layoffs. Consequently, the downturn may well contribute to a larger technician shortage in the long term. When looking for jobs, these technicians have the option to change direction into automotive, medium and heavy truck, and other industries where their technical skills and knowledge relate well. It's an open question, then, as to whether they return to equipment service. This begs the question of how equipment dealers fill the technician ranks again when the industry enters the recovery phase. Then, technician staffing means both attaining pre-downturn staffing levels and staffing for future growth.

Everyone recognizes that service revenues and profits are key components of dealer success. And, given appropriate demand, the potential annual lost dealer revenue from even one unfilled service technician position is \$150,000 or more. Though the industry downturn may "mask" the level and urgency of the technician recruitment situation, it is still very much with us. In that context, the looming issue long term remains the same as indicated by prior surveys.

The AED Foundation is committed to helping AED members address their workforce needs. Two key Foundation initiatives focus on dealers "growing their own technicians" via involvement in community-based, school-to-work partnership programs. One program is AED Accreditation for technical colleges; there are now 20 accredited schools, and more than a dozen actively pursuing accreditation. Another more recent initiative is the AED Recognized Education Alliance, recognizing AED dealers and technical schools that work together to address mutual needs in curriculum and student recruitment and placement. The AED Foundation's belief is that such local workforce efforts are central to addressing industry image and technician recruitment needs over the long term.

In addition to information such as this survey, the Foundation offers other workforce development initiatives to benefit AED members. AEDWorkforce.com is a free member service offering technician job applicants, as well as dealer recruitment tools and other information resources. AEDCareers.com helps students to explore the dealer technician career opportunity. Another such informational Web site for students is ConstructMyFuture.com, where the Foundation has partnered with AEM and AGC.

For this report, AED member dealers were surveyed from May to July of 2008. Of the roughly 650 dealer surveys mailed, 108 were returned for a response rate of 17 percent, similar to the response rates of previous years.

Specific areas of inquiry included:

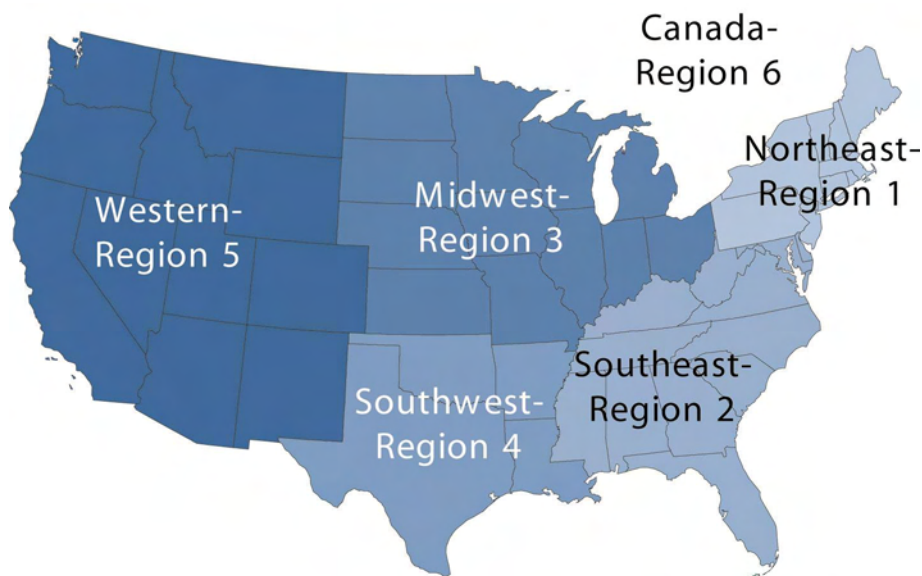
- ◆ Service Sales Growth
- ◆ Demand for Quality Technicians
- ◆ Wages and Labor Rates
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- ◆ Entry-Level Technician Qualifications
- ◆ Dealer Hiring Practices



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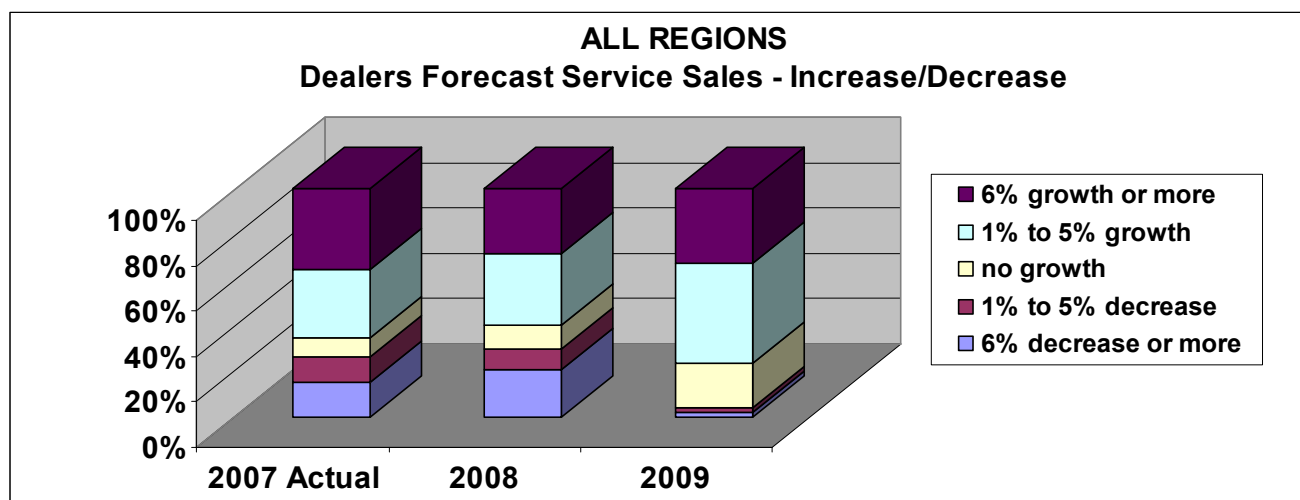
AED regional information is presented in selected areas of this report. Refer to this map to see what areas are incorporated into each AED North American region.



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Forecasting Service Sales

The present economic and industry downturn is reflected in this year's survey numbers. The percentage of AED dealer respondents reporting service sales growth fell from 66% for 2007 to 60% projected in 2008. Those reporting over 6% growth fell from 36% in 2007 to 28% projected in 2008, a more striking difference. This compares to the 86% of dealers reporting growth in 2006. In comparing 2007 to 2008 projections, those reporting no growth rose from 8% to 10%. In that time period, the number of respondents reporting service sales decreases rose from 26% to 30%; those reporting a 6% or more decline rose from 15% to 21%. For 2009, 77% of dealers forecast growth, while 33% forecast growth of 6% or more. Another 20% forecast no growth in the year.



In 2008, 60% of dealers are forecasting service sales growth, with 28% expecting growth of 6% or greater. In 2009, 77% forecast growth, with 33% expecting growth of 6% or greater.

Regional differences, as to the impact of the economic and industry downturn, are apparent in the AED North American region data in the tables to the right. For a map of AED regions, refer to the Table of Contents page.

Expectations of growth for 2008 have fallen dramatically in four of the six regions. In last year's survey, the range of percentages for 2008 growth was from 67% to 94%. This year's survey shows a range of 35% to 86%.

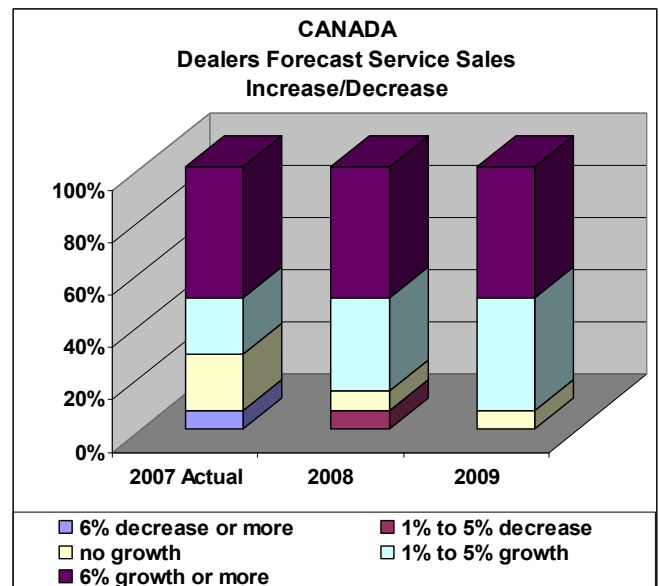
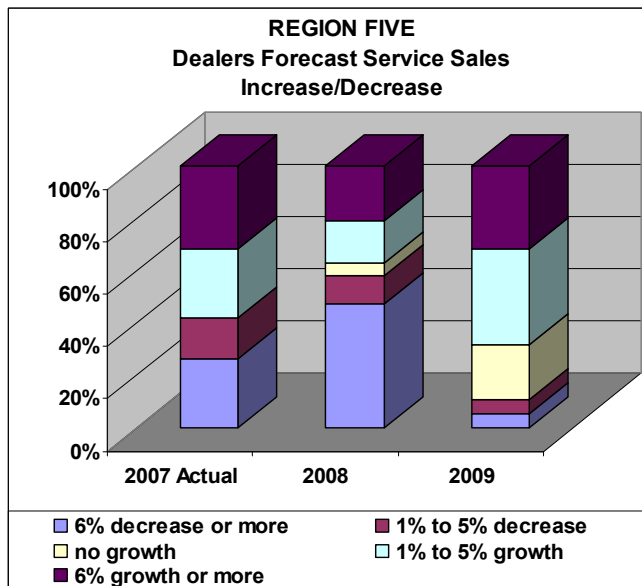
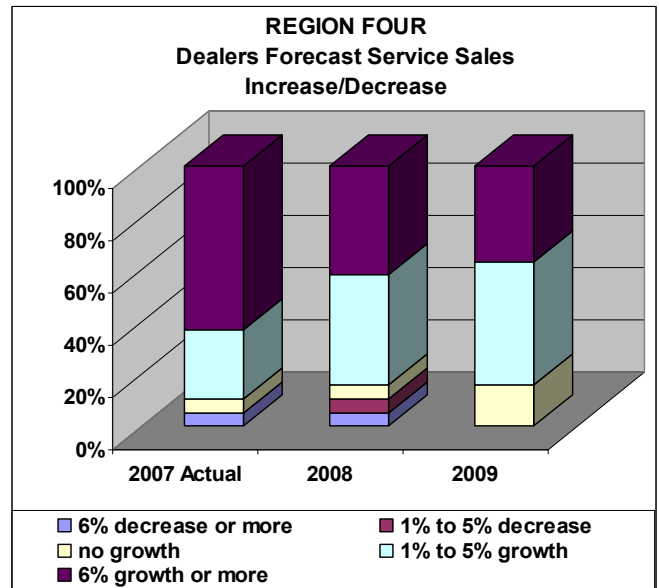
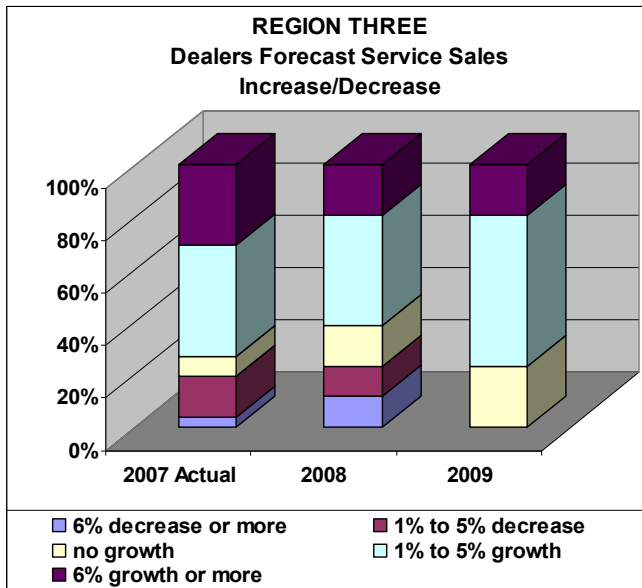
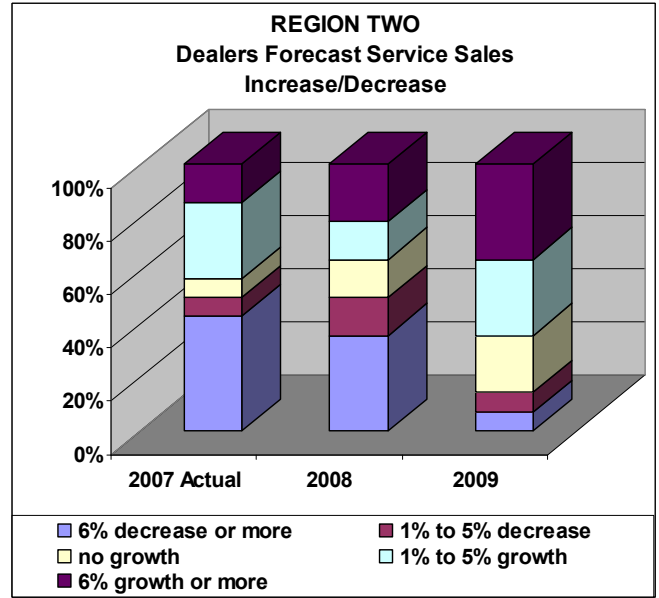
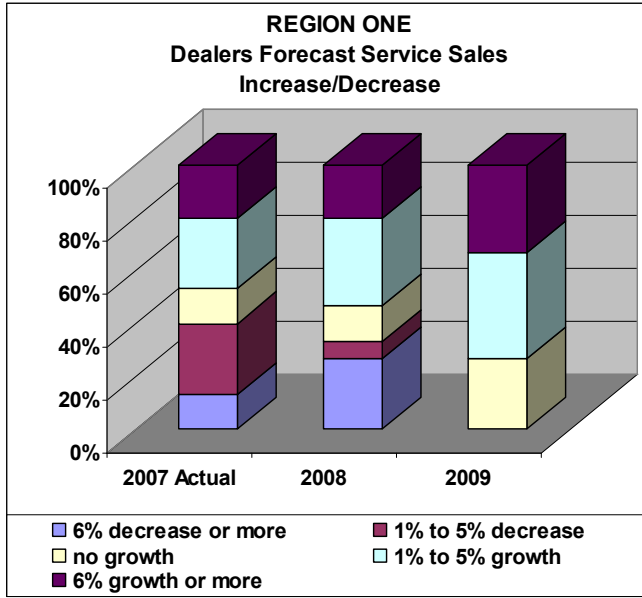
A significantly greater number of dealers expect growth in 2009 versus 2008 service sales revenues, but the numbers here clearly reflect the expectation of continued market weakness in 2009.

Decreased 2009 service sales are forecast in Region 2 – 14% of respondents; and Region 5 – 10% of respondents. No growth in 2009 is forecasted in Region 1 – 27%; Region 2 – 21%; Region 3 – 23%; Region 4 – 16%; Region 5 – 21%; and Canada/Region 6 – 7%.

% of Dealers Forecasting Growth			
REGION	2008 (07-08 Survey)	2008 (This Survey)	2009 (This Survey)
1	94%	53%	73%
2	89%	35%	65%
3	90%	61%	77%
4	67%	84%	84%
5	85%	37%	69%
Canada	81%	86%	93%

% of Dealers Forecasting Growth of 6% or More			
REGION	2008 (07-08 Survey)	2008 (This Survey)	2009 (This Survey)
1	25%	20%	33%
2	56%	21%	36%
3	30%	19%	19%
4	50%	42%	37%
5	14%	21%	32%
Canada	45%	50%	50%

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Technician Workforce

Workforce Profile and Technician Shortage

When You Have a Job Opening and Can't Find a Technician...

...What Does It Cost You?

To determine the “lost opportunity cost” to the dealer when enough technicians can't be hired to meet local market demand, assume an 80% recovery rate per week for a total of 36 hours that are billable.

1 technician at 80% efficiency (recovery rate) X 45 hours/week = 36 billable hours

Therefore,

36 billable hours X \$86.05 average U.S. retail shop rate = \$3,100 billable LOST PER WEEK

To calculate the number of equipment-dealer-employed technicians, and the current technician shortage among dealers, the following methodology is used. The survey gathers information as to the number of technicians employed by survey respondents, as well as how many current technician job openings respondents have. Then based on current AED dealer membership tiers, as determined per dealer annual sales volumes, survey information is projected across the estimated 900 independent, authorized, full-service construction equipment dealers in the U.S. and Canada.

Using this methodology, the estimate of currently employed construction equipment dealer technicians is 44,200 in the U.S. and Canada. This compares to prior year workforce needs survey estimates of 44,500 in 2007; 42,400 in 2006; and 42,200 in 2005.

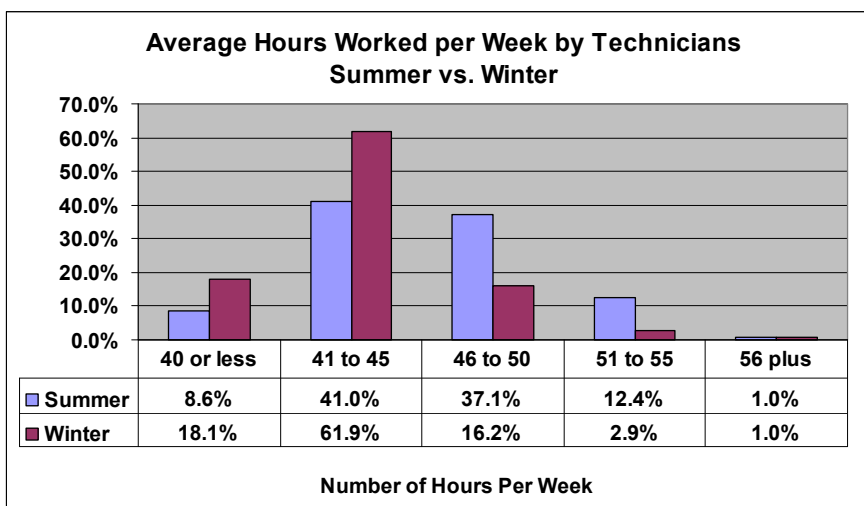
The estimate of current technician job openings at dealers in North America is 2,400. Given the current economic and industry environment, this is not unexpected. Still, the technician shortage is emphasized. Even in an industry downturn, there are 2,400 unfilled technician jobs with equipment dealers. This compares to prior estimates of 4,200 in 2007; 4,900 in 2006; and 4,500 in 2005. Estimates of technician demand via this survey are in general consistent with estimates from several other independent sources.

Overtime

Equipment dealer technicians typically put in a fair amount of overtime, especially in the summer months. This data shows that only 9% in the summer and 18% in the winter are working 40 hours or less.

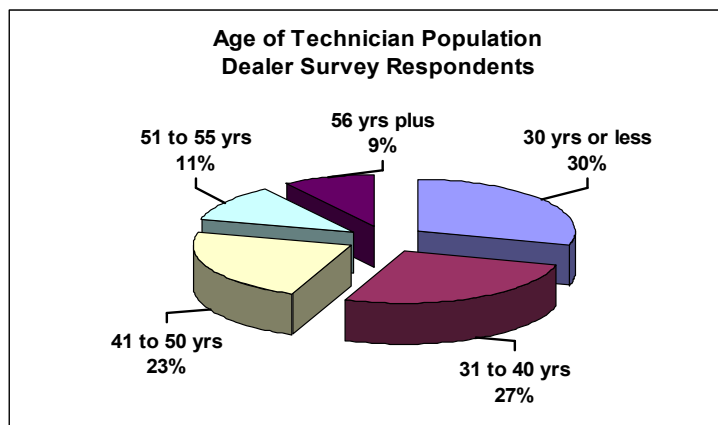
Tenure & Turnover

Technician employment tenure on average is 9.8 years. This compares to 9.4 in 2007; 10.0 in 2006; and 10.1 in 2005. Reported technician turnover is 11.2% versus 9.8% in 2007 and 10.3% in 2006.



In both summer and winter, over 80% of technicians work overtime.

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Demographics remain a key factor in tech workforce planning.

Demographics

The percentage of technicians over 50 years old is 20%, with 9% over 56 years old. The percentage of techs over 40 is 43%. That number is down from 49% reported in last year's survey.

The percentage of techs "under 30 years old" reported rose from 24% last year to 30% in this year's survey.

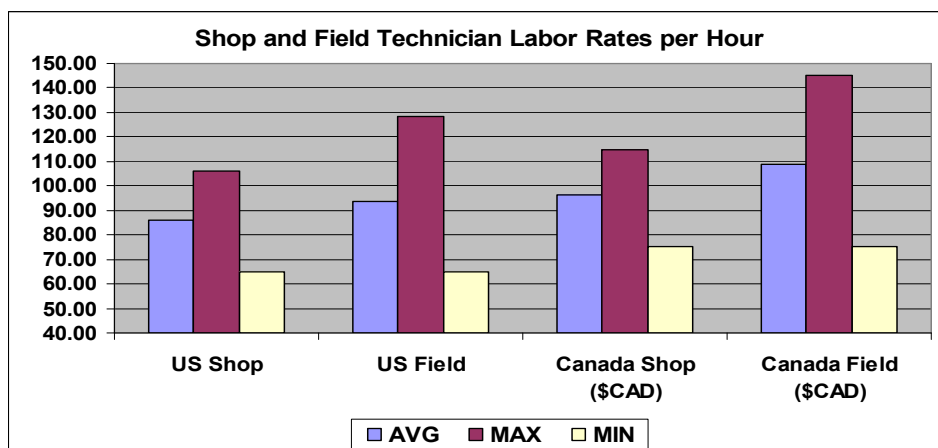
Respondent dealers expect 6.3% of their technicians to retire during the next 5 years; that number was 8.9% last year.

Shop and Field Technician Labor Rates

The chart and table below provide summary shop and field customer labor rates for the U.S. and Canada, including average, minimum and maximum rates. The table compares this year's survey rates to the prior three years. The maximum and minimum rates are more variable year-to-year due to their closer dependence on the specific dealer respondents in each given year. The averages shown, however, show a distinct upward trend for shop and field labor rates from 2005 to 2008. Labor rates by AED Region are provided in the two additional charts on the following page.

The average reported U.S. shop customer labor rate rose to \$86.05 in 2008 from \$80.83 in 2007. The field labor rate rose to \$93.69 from \$85.98.

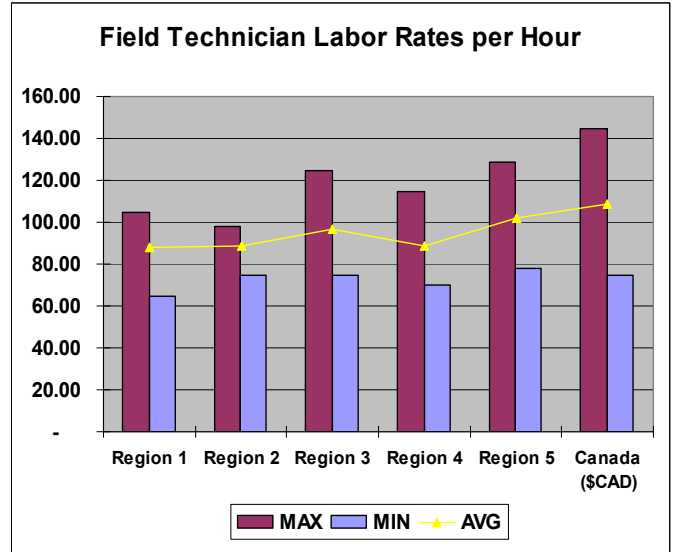
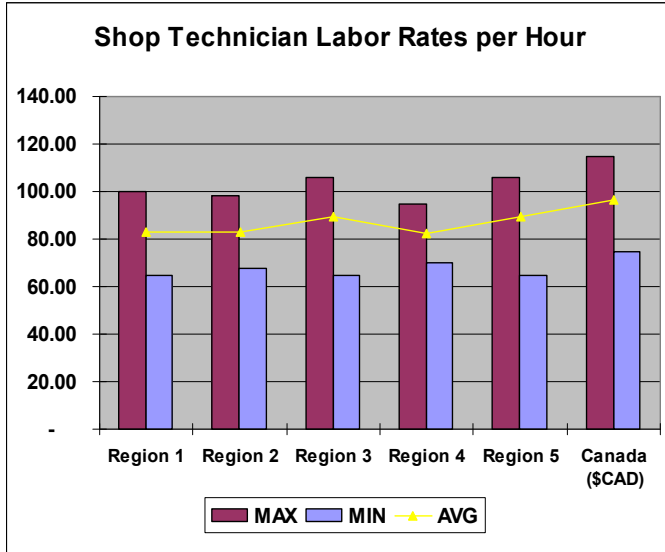
Average shop rates in Canada also rose, to \$96.21 (CAD) in 2008 from \$94.90 (CAD) in 2007. The field labor rate rose to \$108.57 from \$103.45.



Average Shop and Field Customer Labor Rates Rose Again in 2008

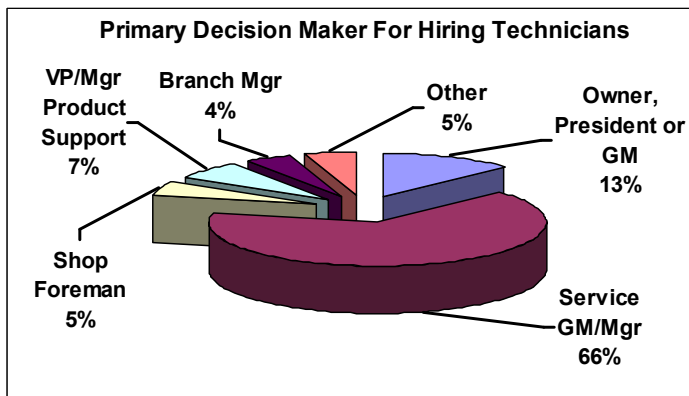
Shop and Field Technician Customer Labor Rates Per Hour – 2005 to 2008					
	Year	US Shop	US Field	Canada Shop (\$CAD)	Canada Field (\$CAD)
Average	2008	\$86.05	\$93.69	\$96.21	\$108.57
	2007	\$80.83	\$85.98	\$94.90	\$103.45
	2006	\$78.58	\$84.79	\$87.65	\$94.75
	2005	\$75.19	\$81.43	\$82.16	\$87.19
Maximum	2008	\$106.00	\$128.50	\$115.00	\$145.00
	2007	\$110.00	\$116.00	\$110.00	\$115.00
	2006	\$115.00	\$115.00	\$105.00	\$105.00
	2005	\$110.00	\$118.00	\$100.00	\$104.00
Minimum	2008	\$65.00	\$65.00	\$75.00	\$75.00
	2007	\$52.00	\$62.00	\$86.50	\$90.00
	2006	\$52.00	\$60.00	\$65.00	\$81.00
	2005	\$45.00	\$60.00	\$64.95	\$74.95

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Hiring Technicians

Who at the Dealership Hires Technicians



For this year's survey, 66% of respondents indicate that Service Managers, and/or Service VP's or General Managers are the primary decision-makers for hiring technicians. This compares to 64% in the previous year's survey. Dealer principals, the second highest response, are the hiring decision-makers at 13% of the responding dealers. It is also common for the hiring decision to involve several individuals.

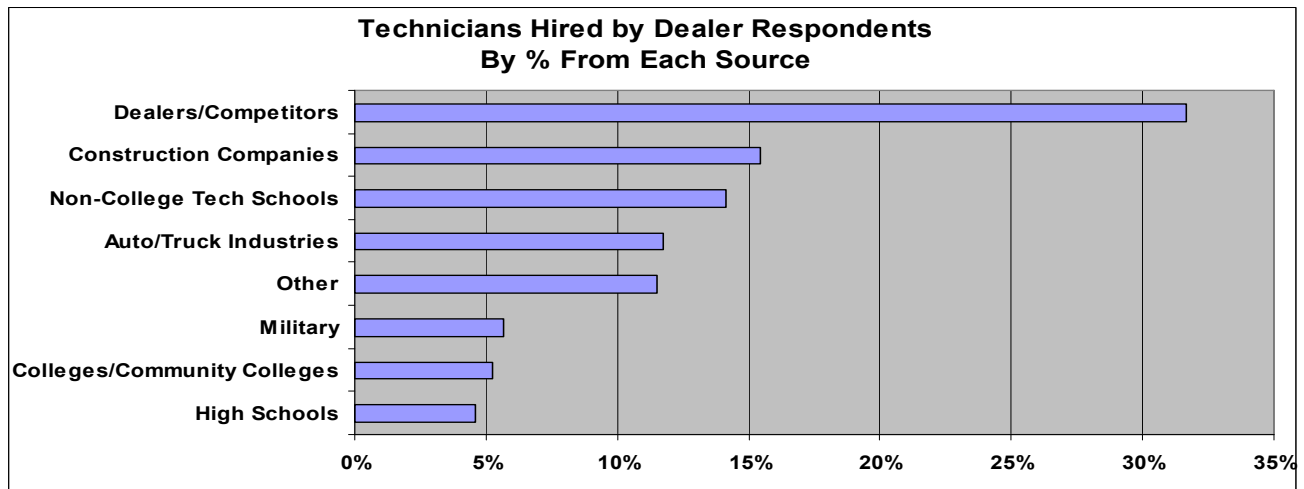
Service Department Managers are most commonly the primary decision-makers for hiring technicians.

Where Dealers Find Technicians

Each year, the workforce survey asks dealers where they source their technicians and the percentage from each source. Each year, by far the source most cited by respondents, by percentage, is "other equipment dealers and competitors." That percentage in this survey is 32%, the same percentage as last year and close to the 2006 number of 34%. No doubt this relates directly to the difficulty of finding qualified technician job applicants and expediency in filling those positions. In many instances other sources – such as the military, related industries like auto and truck, and entry-level applicants graduating from technical programs – will present a longer learning curve involving more training and mentoring, and temporarily perhaps a reduced recovery rate. However, this high level of "churn" in sourcing technicians from competitors also presents its own challenges and costs to the dealer; costs that are inherent in high turnover rates. Other frequently mentioned sources of

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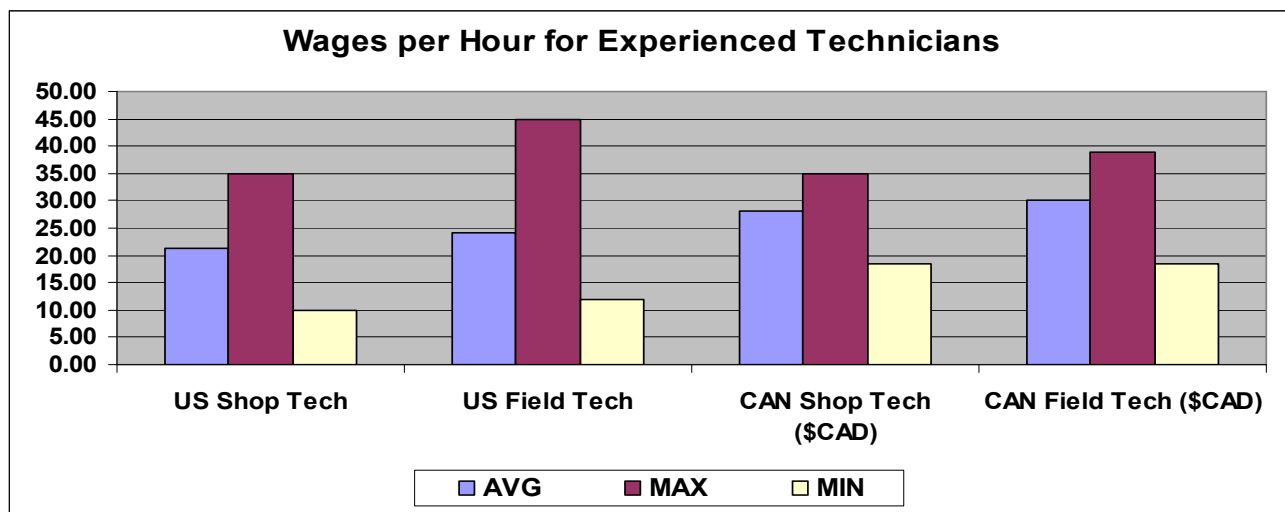
technician hires include post-secondary schools at 19%, construction companies at 15%, and the auto/truck industry at 12%.



What Technicians Are Paid

The following charts and table provide AED workforce needs survey data on shop and field technician wages from 2006 to 2008. As with the customer labor rates discussed previously, the maximum and minimum numbers are more variable year-to-year due to their closer dependence on the specific dealer respondents in each given year. In general, the average shop and field technician wages show upward pressure even in a period of industry downturn. Looking at the technician shortage, it seems reasonable to view technician supply and demand as a significant component of stable and rising technician wages in the current business environment.

An experienced shop technician in the U.S. earns an average of \$21.29 per hour while the average field technician wage is \$24.04 per hour. In Canada, an experienced shop technician receives, on average, \$28.23 (CAD) per hour; the field technicians' average wage is \$30.18 (CAD). Maximum and minimum wages per hour for these same positions are shown below. Data by AED region is shown in the charts on the following page.

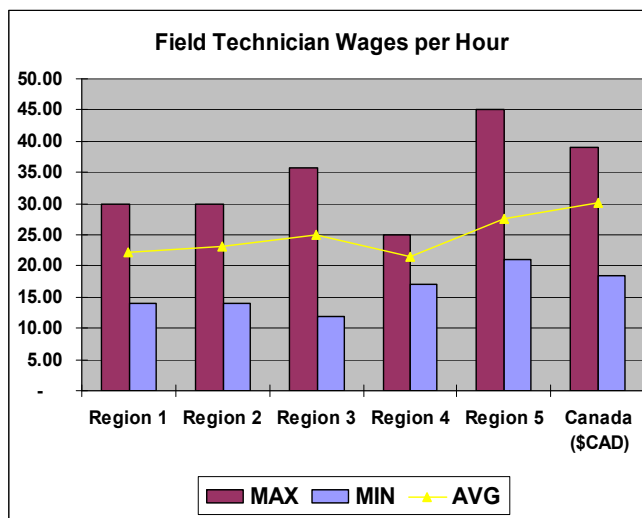
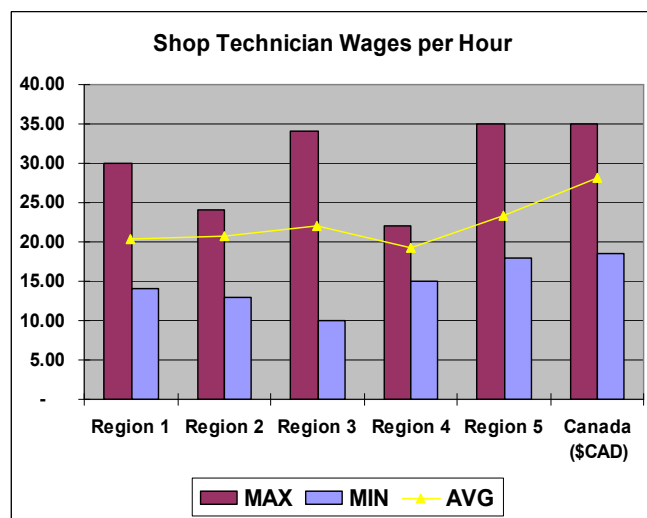


The average shop tech earns \$21.29 in the U.S. and \$28.23 (CAD) in Canada.
The average field tech earns \$24.04 in the U.S. and \$30.18 (CAD) in Canada.

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Shop and Field Technician Employee Wages Per Hour – 2006 to 2008					
	Year	US Shop	US Field	Canada Shop (\$CAD)	Canada Field (\$CAD)
Average	2008	\$21.29	\$24.04	\$28.23	\$30.18
	2007	\$20.96	\$22.93	\$28.84	\$31.58
	2006	\$19.78	\$22.00	\$25.76	\$27.71
Maximum	2008	\$35.00	\$45.00	\$35.00	\$39.00
	2007	\$32.85	\$34.10	\$34.00	\$35.00
	2006	\$32.05	\$33.05	\$32.00	\$32.00
Minimum	2008	\$10.00	\$12.00	\$18.50	\$18.50
	2007	\$15.00	\$16.00	\$24.12	\$27.00
	2006	\$14.00	\$15.00	\$20.00	\$20.00

Technician wages show stability and upward pressure even in a challenging industry environment.



How Dealers Hire Technicians

Though dealers have many recruitment options open to them, six in particular have stood out over the past three AED workforce surveys. Each year, the survey asks how dealers will recruit their technicians in the future. Please note that respondents were asked to check “all that apply” for this question.

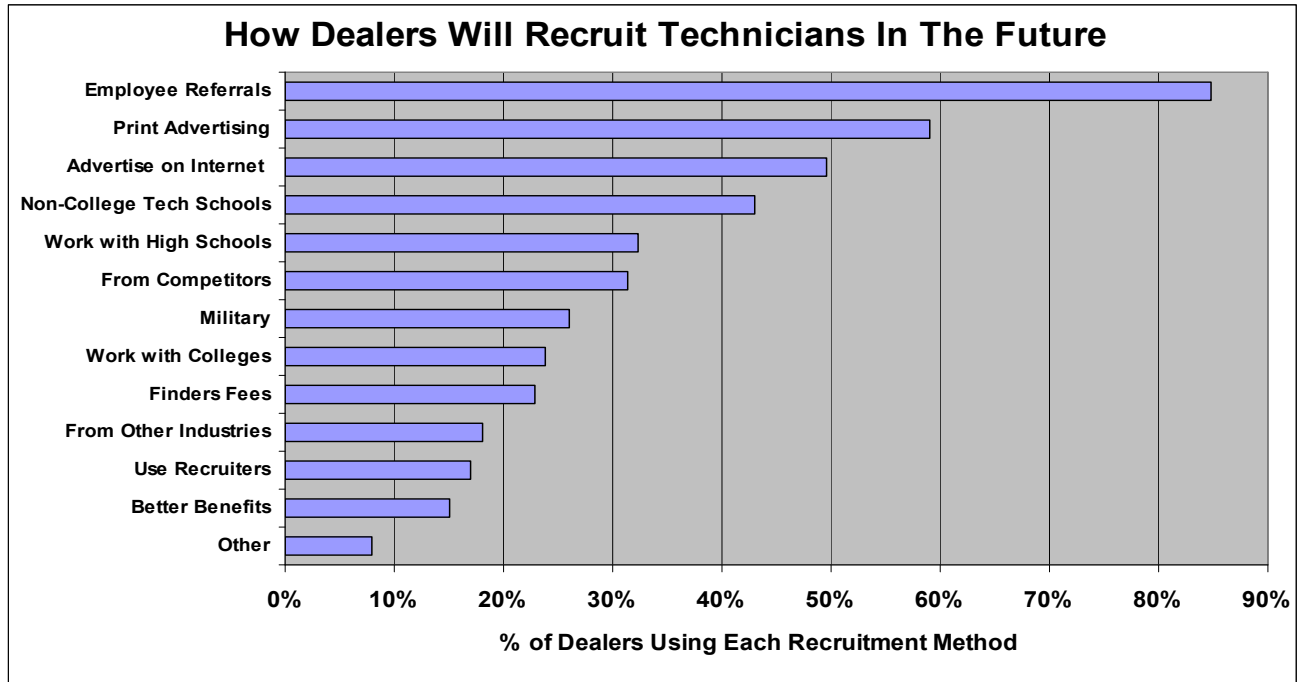
The chart at the top of the following page shows the variety and relative frequency of responses received. However, only six methods have appeared in the “top five” in the last three surveys; they are listed in the table shown to the right. The first four listed have always been in the top five mentioned.

Other methods include: Military at 26%; Work with Technical Colleges at 24%; Finders Fees at 23%; and Other Industries at 18%.

Top Methods – Recruit Future Techs (% of Dealers Using Method)

	Survey Year		
	08-09	07-08	06-07
Referrals	85%	74%	78%
Print Ads	59%	69%	62%
Internet Ads	50%	50%	50%
Tech Schools (Non-college)	43%	52%	55%
High Schools	32%	29%	36%
Competitors	31%	46%	47%

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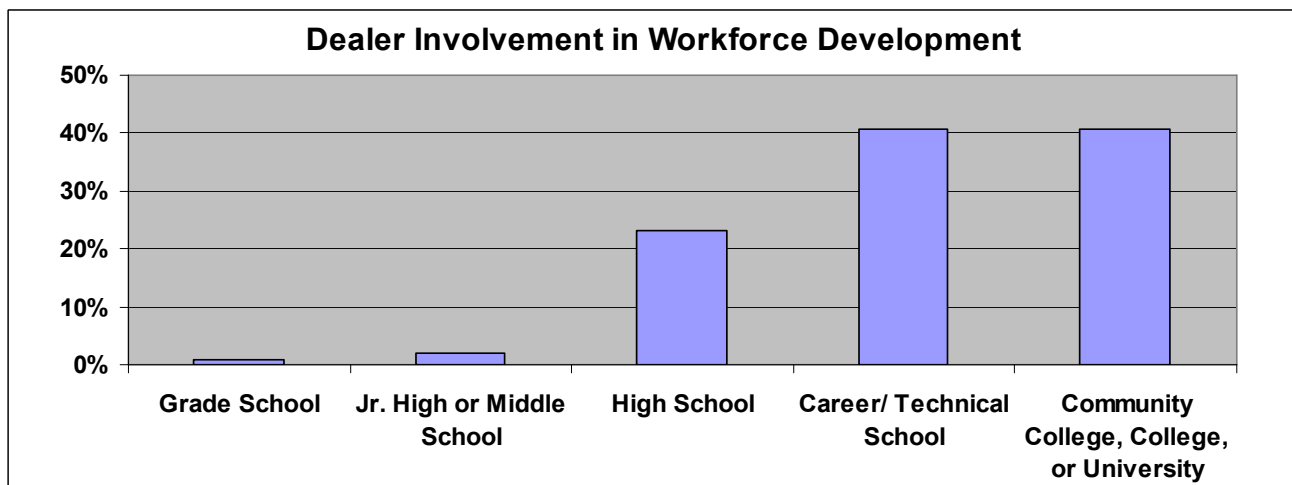


Referral has been the #1 means of technician recruitment mentioned in each of the past three surveys.

Involvement with Technical Schools and Colleges

A key element of The AED Foundation’s strategy, with regard to technician recruitment, is the emphasis on community-based, school-to-work programs. These types of initiatives involve dealers, and groups of dealers, working together with local post-secondary technical schools to “grow their own technicians.” Included are student recruitment activities, technical program development, working with and supporting students in the schools, and student placement.

Through the above approach, industry “image” issues as to technician careers are addressed through direct person-to-person relationship building with students, their parents, school career counselors, student peers and other career decision influencers. Bridges are built between dealers, post-secondary schools and local high schools. In this way, every student who decides on an equipment technician career is an “image success story.”



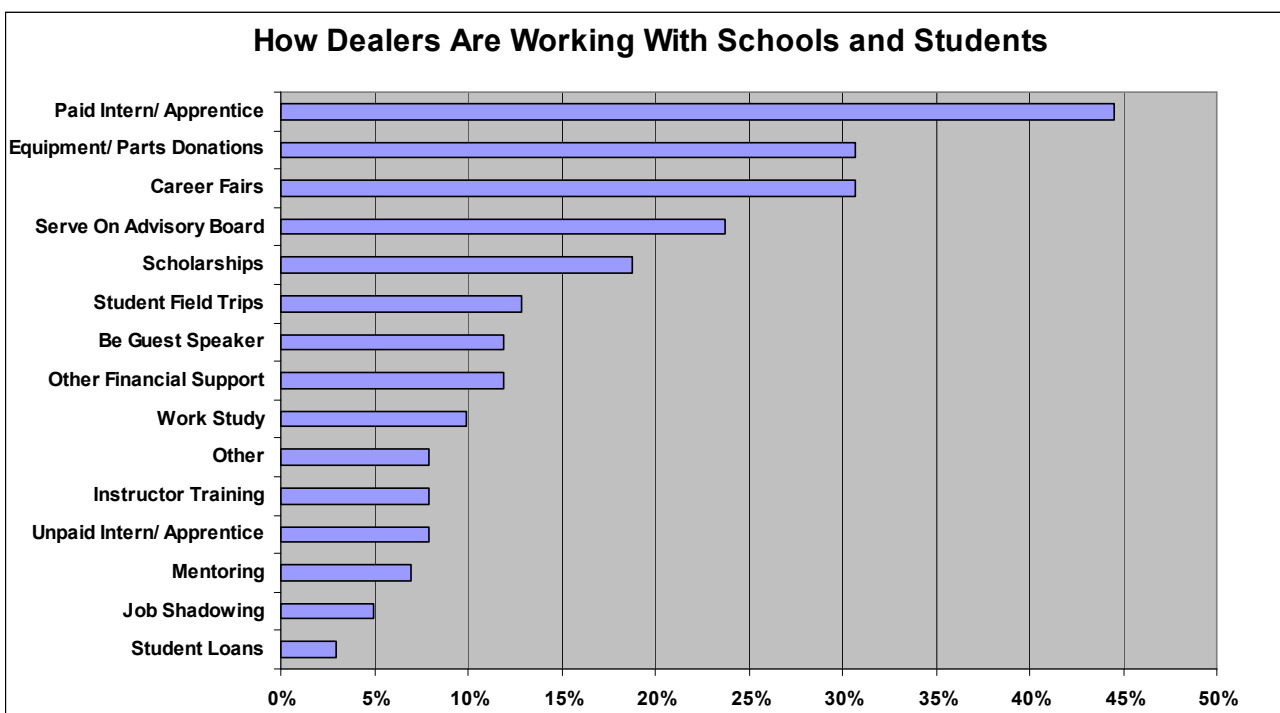
62% of dealer respondents work with local secondary and post-secondary schools.

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Similar to last year's number of 61%, respondents this year indicated that 62% of dealers are working with local schools in community-based school-to-work programs. The numbers also show that 41% work with non-college technical schools, 41% work with technical colleges, and 23% work with local high schools.

This survey indicates that, with some exceptions, next to no-one is working on student recruitment programs in junior high/middle schools or grade schools. This has been the general response in all recent AED Foundation workforce needs surveys. Anecdotally, a number of industry stakeholders tell the Foundation that efforts at this level are increasingly important... that students should be reached early in their career-decision process. By early or mid high school years, students may already be well along the road in exploring career alternatives and making those decisions.

As indicated in last year's survey, half of dealer respondents indicated that they have hired new technicians via their local school partnership efforts. Those partnering dealers are involved as shown in the following chart by type of workforce development activity. At 45% of respondents, Paid Internships and Apprenticeships are most widely used. Also in the top five activities are: Equipment and Parts Donations at 31%, Career Fairs at 31%, Advisory Board participation at 24%, and Student Scholarships at 19%. The two approaches most mentioned by respondents as successful were the same ones mentioned in last year's survey, Paid Internships/Apprenticeships and Career Fairs.



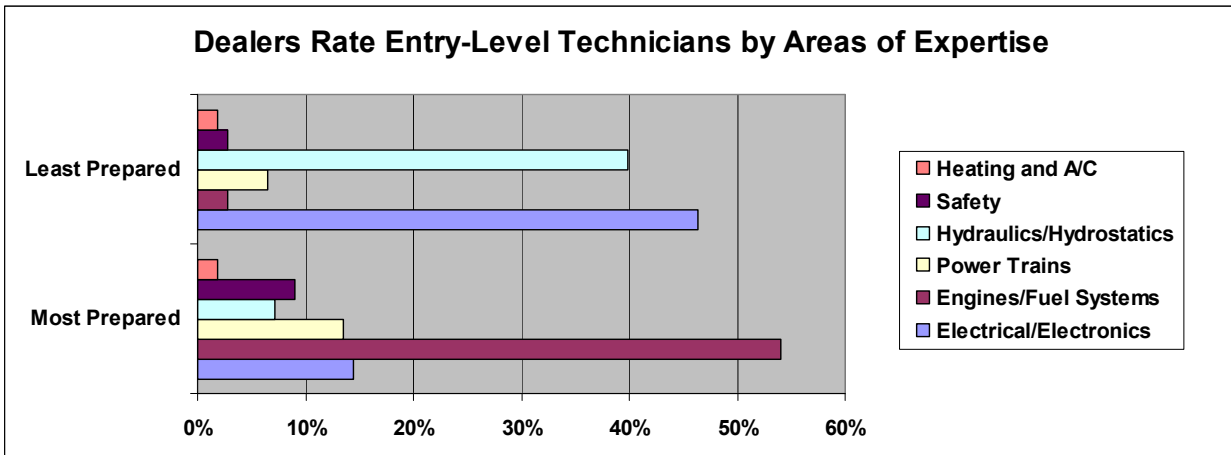
50% of dealer respondents say they have hired new techs via local school partnership efforts.

To again state the importance of these local workforce initiatives, “dealers involved in school-to-work programs are doing far more than creating a local stream of new qualified entry-level technicians. They are a part of something much bigger. They help to ensure the continued existence of the technical programs, contribute to the quality of the educational process, form mutually beneficial relationships with faculty and students, and have the satisfaction of helping young people find and prepare for a rewarding, challenging career in our industry.”

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Entry-Level Technician Qualifications

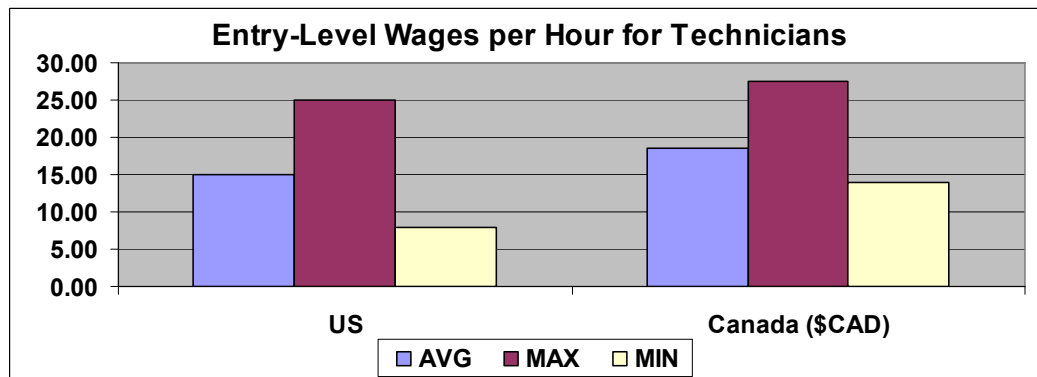
When working with technical schools and colleges in school partnership initiatives, The AED Foundation emphasizes program needs as determined by the equipment industry. This is done through the ongoing updates to AED national technical standards as contained in the publication *Standards for Construction Equipment Technology*. Each year, the survey asks respondents where entry-level service technicians are “most prepared” and “least prepared.” Over the past several years, workforce needs survey findings have been remarkably consistent. The answers, as shown below, relate directly to areas receiving greater emphasis in the technical standards publication updates. In the category of “most prepared,” the dominant answer by far was “engines and fuel systems” as reported by 54% of respondents this year and 57% of respondents last year. In the category of “least prepared,” two areas again stood out by far from all the others. The first was “electrical/electronics” at 46% of respondents this year and 54% last year. The second was “hydraulics/hydrostatics” at 40% of respondents this year and 34% last year.



**New techs are “least prepared” in the areas of “electrical/electronics” & “hydraulics/hydrostatics.”
AED dealers report that techs are “most prepared” in the area of “engines/fuel systems.”**

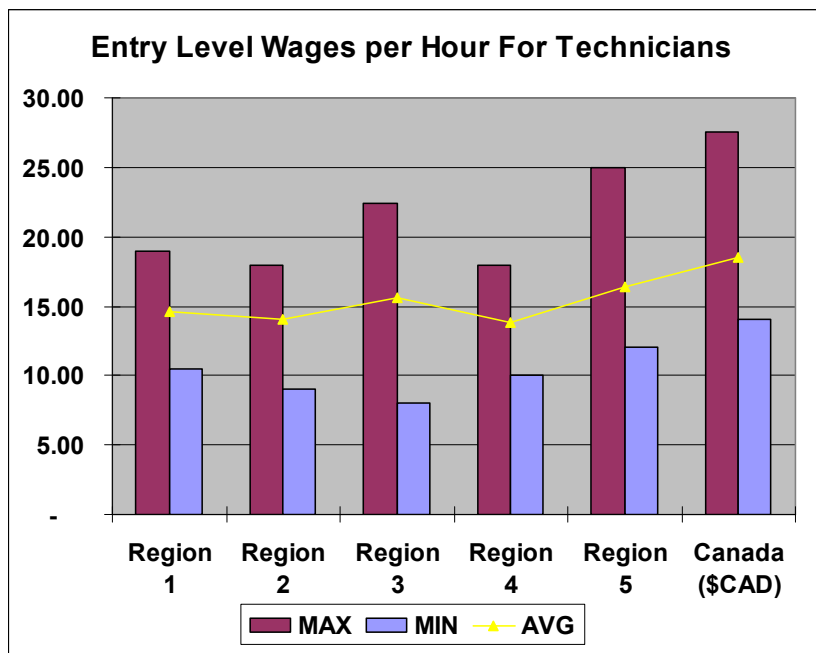
Entry-Level Technician Wages

After several years of annual increases, entry-level technician wage growth on average has been flat to slightly down in 2008. In the U.S., the average reported by survey respondents is \$15.03 with a maximum of \$25.00 and a minimum of \$8.00. For Canada, the average reported wage is \$18.47 (CAD) with a maximum of \$27.50 (CAD) and a minimum of \$14.00 (CAD). The trend from 2004 to 2008 is provided in the table on the next page, as is entry-level wage data by AED region.



The average entry-level wage is \$15.03 in the U.S. and \$18.47 (CAD) in Canada, as compared to last year's numbers of \$14.94 in the U.S. and \$19.45 (CAD) in Canada.

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	Year	US	Canada (\$CAD)
Average	2008	\$15.03	\$18.47
	2007	\$14.94	\$19.45
	2006	\$14.35	\$18.22
	2005	\$14.32	\$17.74
	2004	\$13.91	\$16.00
Maximum	2008	\$25.00	\$27.50
	2007	\$31.30	\$32.72
	2006	\$30.10	\$27.00
	2005	\$25.00	\$28.00
	2004	\$27.00	\$23.00
Minimum	2008	\$8.00	\$14.00
	2007	\$9.50	\$15.00
	2006	\$8.00	\$12.00
	2005	\$9.00	\$12.00
	2004	\$9.50	\$12.00



Industry-Specific Dealer Management Training

- ◆ Manager certification programs in parts, service, branch and rental management
- ◆ Education programs in parts, service, rental, sales, finance, and human resources
- ◆ Courses in branch management, people management and customer management
- ◆ Courses in office skills, safety and compliance, and human resources
- ◆ Seminars, self-study programs, and online training - online pre-tests and post-tests
- ◆ Provider of Continuing Education Units (CEUs) as approved by IACET
- ◆ Free Personal Development Plans (PDPs) for managers employed with AED members
- ◆ The AED University Learning Management System, a free service to AED members; the LMS provides an integrated, online education management tool designed to help supervisors and employees plan, select, coordinate and track their professional education experiences



www.AEDWorkforce.com

Technician applicant job listings for positions at AED dealerships

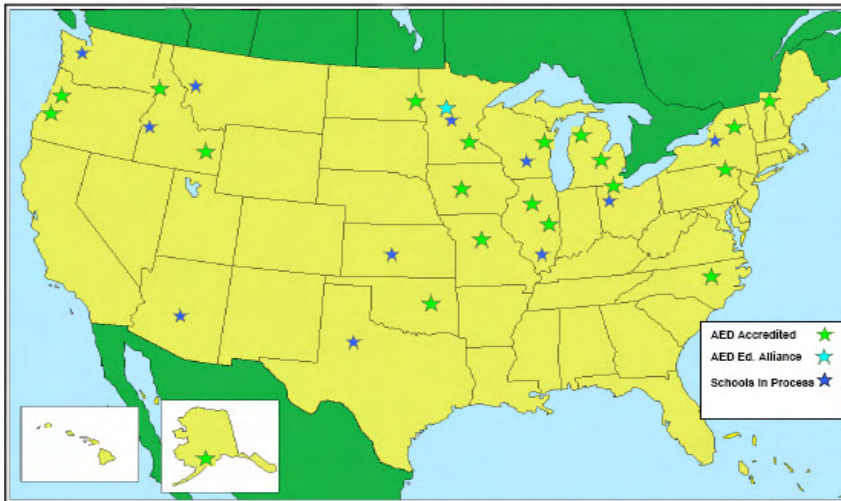
AED member workforce recruitment and development tools

- A free recruitment job site exclusively for AED member dealers
- Tools for recruiting student technicians as well as experienced technicians

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THE AED FOUNDATION – VISION 2012

AED ACCREDITED & EDUCATION ALLIANCE TECHNICAL SCHOOLS



Please contact The AED Foundation for more information about working with your local technical schools to help them achieve AED Accreditation or AED Recognition via the new AED Education Alliance program. AED national technical standards for accreditation define the essential skills and knowledge that produce highly qualified entry-level equipment technicians.

AED ACCREDITED COLLEGES

- Ferris State University, Big Rapids, MI
- White Mountains Community College, Berlin, NH
- North Dakota State College of Science, Wahpeton, ND
- State University of New York at Cobleskill, Cobleskill, NY
- Lansing Community College, Lansing, MI
- Pennsylvania College of Technology, Williamsport, PA
- Linn State Technical College, Linn, MO
- Alaska Vocational Technical Center, Seward, AK
- Northeast Wisconsin Technical College, Sturgeon Bay, WI
- Linn Benton Community College, Albany, OR
- Parkland College, Champaign, IL
- Illinois Central College, East Peoria, IL
- Lewis-Clark State College, Lewiston, ID
- Owens State Community College, Toledo, OH
- Lane Community College, Eugene, OR
- Wake Technical Community College, Raleigh, NC
- Oklahoma State University, Okmulgee, OK
- Des Moines Area Community College, Ankeny, IA
- Idaho State University, Pocatello, ID
- Dakota County Technical College, Rosemount, MN

AED RECOGNIZED EDUCATION ALLIANCE SCHOOLS *As Conferred By AED Local Dealer Education Alliances*

- Central Lakes College, Staples, MN

Tell students, parents and school counselors to visit ConstructMyFuture.com

It's a great place to find information about exciting career opportunities in the construction equipment industry



ConstructMyFuture.com is a joint initiative of The AED Foundation, the Association of Equipment Manufacturers and the Associated General Contractors of America to increase student interest in and facilitate student recruitment for careers in construction related industries.



AEDCareers.com is an excellent resource for students, parents, high school counselors, career decision influencers and others to explore the construction equipment dealer technician career opportunity.

AEDCareers.com is provided as an industry resource to assist in recruiting students specifically for careers as construction equipment technicians with AED dealers. AEDCareers.com is a workforce development initiative of The AED Foundation.



The AED Foundation
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