



OAKLAND
COMMUNITY
COLLEGE

**Oakland Community College
Collision Auto Repair (CAR)
Insurance Company Analysis
Final Report**

**Prepared by
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February 2003

Table of Contents

Executive Summary

Overview	2
Methods	2
Key Findings	2

Labor Market for Auto Damage Appraisers	3
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Table 1 - 2001 Occupational Employment Statistics Survey Michigan Metropolitan Areas.....	3
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Table 2 - Employment Projections 1998-2008, Insurance Appraisers, Auto Damage.....	4
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Appendix A – Copy of Insurance Company Survey Instrument	6
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Appendix B – Collision Auto Repair Analysis – Insurance Survey Data Table	9
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EXECUTIVE SUMMARY

OVERVIEW

The purpose of this study is to gain a more detailed understanding of the labor market for graduates of Oakland Community College's (OCC) Collision Auto Repair (CAR) program. The Program Marketing team hopes to learn what types of opportunities exist for CAR graduates in the insurance industry. Specifically, this research project was initiated to help identify opportunities for CAR graduates as automobile damage adjusters or appraisers for insurance companies.

METHODS

For the purposes of this study, a telephone questionnaire was developed to ask specific questions about the insurance industry and the types of opportunities available for CAR graduates. The respondent in most cases was the person responsible for hiring auto damage adjusters/appraisers. A copy of the survey in its entirety can be found in Appendix A of this report. In addition, information from the Bureau of Labor Statistics provided insight into the job duties, training and working conditions for auto damage appraisers.

KEY FINDINGS

- The labor market demand for auto damage appraisers is expected to grow about as fast as average until 2010.
- In Michigan, there are projected to be 290 auto damage appraisers by the year 2008, an increase of 20 jobs from 1998's estimate of 270 workers in this field.
- According to Institutional Research's findings from the Insurance Company Survey, most insurance companies do not require a degree for new auto damage appraisers.
- The typical background sought by insurance companies is some body shop experience and/or related work experience in the auto damage appraiser profession.
- Of those insurance companies that do utilize some type of "preferred" list of body shops to conduct auto damage repairs, most cite extensive requirements for body shops to become a "preferred provider."

THE LABOR MARKET – AUTOMOBILE DAMAGE APPRAISERS

According to the 2002-2003 Occupational Outlook Handbook, the main functions of auto damage adjusters and appraisers are to "appraise automobile or other vehicle damage to determine [the] cost of repair for insurance claim settlement and seek agreement with [the] automotive repair shop on [the] cost of repair. [They also] prepare insurance forms to indicate repair cost or cost estimates and recommendations." Insurance companies value auto damage appraisers because they can provide an unbiased judgment of repair costs.¹

The U.S. Department of Labor's Bureau of Labor Statistics (BLS) states that in 2001 there were 12,110 auto damage appraisers in the nation. The mean hourly wage for these professionals was \$20.37 or \$42,360 annually.² In addition, employment of auto damage appraisers should grow about as fast as the average for all occupations over the 2000-2010 period, which represents an increase of approximately 10 to 20 percent.³

The mean hourly wage for the state (\$16.58) is approximately 23% lower than the national mean wage of \$20.37 per hour. However, the mean hourly pay rate in the Detroit metropolitan area is much closer to the national wage for automobile insurance adjusters (\$20.16 per hour).

Table 1

2001 Occupational Employment Statistics Survey Michigan Metropolitan Areas⁴				
Michigan Metropolitan Area	Mean Hourly Wage	Mean Annual Wage	Median Hourly Wage	Median Annual Wage
Detroit	\$20.16	\$41,930	\$20.62	\$42,890
Grand Rapids-Muskegon-Holland	\$14.23	\$29,600	\$12.54	\$26,090
Saginaw-Bay City-Midland	\$18.86	\$39,230	\$18.04	\$37,530
<i>Michigan</i>	<i>\$16.58</i>	<i>\$34,480</i>	<i>\$14.15</i>	<i>\$29,440</i>

¹ Data taken from website www.bls.gov. 2002-03 Occupational Outlook Handbook.

² Ibid.

³ Ibid.

⁴ Data taken from website www.bls.gov. "National Compensation Survey – Metropolitan Areas."

State employment projections indicate that in 1998 there were 270 auto damage appraisers in Michigan. Further, projections show there will be 290 of these professionals by 2008, a change of 8.6%. As illustrated in Table 2, one additional auto damage appraiser position will be added to the Detroit job market annually, attributable to turnover. For the entire state, of the six annual openings, only two are expected to be due to growth in the market.

Table 2

Employment Projections 1998-2008 Insurance Appraisers, Auto Damage ⁵							
	Employment		Change		Average Annual Openings		
	1998	2008	Level	Percent	Total	Growth	Replacement
MSA	15	10	-5	-7.7	0	0	0
Ann Arbor	15	10	-5	-7.7	0	0	0
Detroit	60	70	10	6.3	1	0	1
Grand Rapids	20	20	0	5.9	0	0	0
Kalamazoo	25	35	10	50.0	1	1	0
Lansing	20	30	10	27.3	1	1	0
<i>Michigan</i>	<i>270</i>	<i>290</i>	<i>20</i>	<i>8.6</i>	<i>6</i>	<i>2</i>	<i>4</i>

EDUCATION AND TRAINING

As expected, individuals working as auto damage appraisers typically begin as auto body repair workers. Subsequently, many are then hired by insurance companies or independent adjusting firms. The BLS states that most auto body workers do not require a college education; however, most insurance companies require at least a bachelor's degree.⁶ Findings from the Insurance Company survey indicate that very few of the companies polled require any formal education.

Currently, there are only four states that require auto damage appraisers to be licensed. It is important that auto damage appraisers continue their education because of the constant introduction of new car models and repair techniques. In findings from the Insurance Company survey, most of those companies surveyed provide initial and ongoing training to these professionals.

⁵ http://www.michlmi.org/LMI/occ_proj/occ_cnty.htm - MDCD - Occupational Employment Forecasts (1998-2008)

⁶ Data taken from website www.bls.gov. 2002-03 Occupational Outlook Handbook.

WORK ENVIRONMENTS

Auto damage appraisers often work outside the office, inspecting damaged automobiles. Many auto damage appraisers are equipped with laptop computers, from which they can download the necessary forms and files from insurance company databases. In addition, many adjusters and appraisers are equipped with digital cameras, which allow photographs of the damage to be sent to the company via the Internet or satellite.⁷

INSURANCE COMPANY SURVEY HIGHLIGHTS

Following is a summary of the results from the insurance companies surveyed by Institutional Research. In total, there were six completed surveys of major insurance companies: Farmer's Insurance, LMC Insurance Company, AAA of Michigan, Citizens Insurance, Titan Insurance, and Meemic Insurance Company.

There are various titles given to auto damage appraisers, including claims representative, claims adjuster, and field appraiser, to name a few. In addition, most of those polled hired employees either inside or outside of the company and sought those with some related work experience – either body shop or previous auto adjusting experience. Few employers were seeking college graduates for these positions. Nearly all utilized staff employees; two employers used both staff employees and contractors.

As noted earlier, training is an important factor for auto damage appraisers. Most employers use in-house training to keep appraisers current and aware of the latest technology and regulations in the field.

Four of those insurance companies surveyed admitted that they do utilize preferred body shops, although none used "preferred" in their designation of these facilities. Two insurance companies called their relationship with these facilities Direct Repair programs, while others cited no specific name. When asked what type of criteria are used to select these facilities, all mentioned that there are countless requirements, too many to list in an interview. Meemic was the only company that stated that they use a "reinspection program" for their body shop facilities to maintain preferred status.

⁷ Ibid.

APPENDIX A

**Insurance Company Survey
CAR Program**

Date: _____ Company: _____

Respondent Name: _____ Title: _____

Hello, my name is Nancy Showers and I'm calling from Oakland Community College. Can you please transfer me to the person responsible for hiring new employees?

Hello, my name is Nancy Showers, and I'm calling from Oakland Community College. We're conducting a survey to help assess the labor market for graduates of our Collision Auto Repair Program. We're also just trying to get a better understanding of how the auto insurance industry works. Do you have ___ minutes to answer some questions?

- 1) Do you currently have automobile adjusters/appraisers who handle automobile damage insurance claims? That is, staff who view and assess damage to vehicles after an accident?

Yes (go to #2) 0 No (terminate interview) 88 Don't know (ask to be directed to someone who can assist)

- 2) What is the title given to someone at your facility who conducts automobile assessments after an accident?

- 1 Claims adjuster
- 2 Claims appraiser
- 3 Automobile damage appraiser
- 4 Automobile damage adjuster
- 5 Other _____
- 88 Don't know

- 3) What is the typical background of someone you hire for this position? (i.e., worked in body shop). Do you prefer to utilize in-house candidates for these types of positions?

- 4) What are the typical educational requirements for someone in this position?

- 5) How important is it for a new hire to have related work experience? What type of work experience? Also, what is the minimum length of time to be previously employed in related work?

- 6) Are these individuals typically independent contractors, employees of your company, or both?

- 7) Do you provide any type(s) of on-site training for these individuals? If so, what type(s)?

- 8) Does your company currently utilize outside training for auto appraisers/adjusters? (If yes) What type(s) of training are chosen? Is reimbursement available to employees for off-site training?

Next, I'd like to ask you a few questions about requirements for the body shops you utilize for repairs.

9) Does your company maintain a "preferred provider" list of body shop facilities (*i.e., body shops that are frequently utilized by your company*)?

1 Yes (*go to a*) 0 No (*go to c*) 88 Don't know

a. (*If yes*) What criteria are used for selection of these body shops?

b. (*If yes*) How many body shops are typically on your preferred list? _____

c. (*If no*) How do you select the body shops that you frequently use?

(If answered "9c", go to closing statement)

10) What does a body shop need to do to maintain preferred status with your company?

Closing Statement: I'd like to thank you for your time today. The information you've given will be very useful in enhancing our Collision Auto Repair program.

APPENDIX B

**COLLISION AUTO REPAIR (CAR) ANALYSIS
INSURANCE SURVEY DATA TABLE**



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**Collision Auto Repair (CAR) Program:
In-Class Survey Data
Three Term Analysis: Fall '01, Winter '02 and Fall '02**

Supplemental Data

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Table of Contents

Executive Summary.....	2
Crosstabs – Term by Survey Question (Percentages).....	4
Crosstabs – Term by Survey Question (Counts).....	13
Class Rosters for CAR Courses	21

EXECUTIVE SUMMARY

- As expected, respondents over the age of 30 were more likely than their younger counterparts to be employed in professional or technical positions, such as mechanic or designer. They were less likely to be employed as carpenters, salespersons, managers/assistant managers, or painter's helpers.

	Age Group (Under 30 vs. 30+)		Total
	Under 30 yrs.	30+ yrs.	
N	38	31	69
Body Tech Assistant		2.63%	1.45%
Business Owner		5.26%	2.90%
Auto Tech	3.23%	2.63%	2.90%
Carpenter	9.68%		4.35%
Cashier	6.45%		2.90%
Sales	16.13%		7.25%
Engineer/Sr. Engineer	3.23%	13.16%	8.70%
Engineering Tech	3.23%		1.45%
Equipment Operator	3.23%	2.63%	2.90%
General Motors Team Tech		5.26%	2.90%
Lab Tech		5.26%	2.90%
Labor/Laborer	3.23%	2.63%	2.90%
Mechanic/Driver - Mechanic		15.79%	8.70%
Manager/Assistant Manager	9.68%		4.35%
Painter's Helper/Prep & Paint/Prep Person	12.90%		5.80%
Detailer	3.23%		1.45%
Machinist		5.26%	2.90%
Retired		5.26%	2.90%
Sr. Designer/Sr. Engine Designer/Sr. Product Designer		13.16%	7.25%
Technical Writer	6.45%		2.90%
Metal Model Maker		5.26%	2.90%
Other Manufacturing-Related		2.63%	1.45%
Other Technical	3.23%	5.26%	4.35%
Other	16.13%	7.89%	11.59%
Total	100.00%	100.00%	100.00%

Bold italics indicate statistically significant difference between the two age groups at a 95% level of significance.

- When examining the three terms combined, CAR students over the age of 40 more often planned to use their newly acquired skills for personal or hobby purposes, and were less likely to use them to seek new employment opportunities.
 - Of the respondents over the age of 40 (Fall 2001, Winter 2002, and Fall 2002 *combined*), all but one person (97.1%) planned to use the skills and knowledge they gained for personal or hobby use, compared to 63.6% of respondents under the age of 40.

Percent who plan to use knowledge/skills for personal/hobby by Age Group (Under 40 vs. 40+)

	Age Group (Under 40 vs. 40+)		Total
	Under 40 yrs.	40+ yrs.	
N	44	35	
No	36.36%	2.86%	21.52%
<u>Yes</u>	<u>63.64%</u>	<u>97.14%</u>	<u>78.48%</u>
Total	100.00%	100.00%	100.00%

Differences between the two age groups are statistically significant at a 95% level of significance.

- For all three terms combined, respondents under the age of 40 more often planned to use the skills gained in the Collision Auto Repair courses to obtain a new job with a different employer.

Percent who plan to use knowledge/skills to obtain new job with different employer by Age Group (Under 40 vs. 40+)

	Age Group (Under 40 vs. 40+)		Total
	Under 40 yrs.	40+ yrs.	
N	44	35	
No	61.36%	97.14%	77.22%
<u>Yes</u>	<u>38.64%</u>	<u>2.86%</u>	<u>22.78%</u>
Total	100.00%	100.00%	100.00%

Differences between the two age groups are statistically significant at a 95% level of significance.

- Based upon review of student rosters, none of the students who enrolled in the non-credit course (MEST 1017-Classic Auto Repair) enrolled in a credit CAR course.

SUPPLEMENTAL CROSSTABS – PERCENTAGES ONLY

Crosstabs

Current Employment Status * Age Group Crosstabulation

% within Age Group

		Age Group					Total (n=79)
		18 - 22 yrs. (n=15)	23 - 29 yrs. (n=19)	30 - 39 yrs. (n=9)	40+ yrs. (n=35)	Under 18 yrs. (n=1)	
Current Employment Status	Full Time (30+ hours)	53.3%	94.7%	77.8%	85.7%		79.7%
	Part Time (<30 hours)	33.3%	5.3%			100.0%	8.9%
	Unemployed	13.3%		22.2%			5.1%
	Out of Labor Force				14.3%		6.3%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

To what extent is this job related to automotive repair? * Age Group Crosstabulation

% within Age Group

		Age Group					Total (n=71)
		18 - 22 yrs. (n=13)	23 - 29 yrs. (n=19)	30 - 39 yrs. (n=7)	40+ yrs. (n=31)	Under 18 yrs. (n=1)	
To what extent is this job related to automotive repair?	Highly Related	30.8%	52.6%	42.9%	51.6%	100.0%	47.9%
	Somewhat Related	7.7%	15.8%	14.3%	25.8%		18.3%
	Not At All Related	61.5%	31.6%	42.9%	22.6%		33.8%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

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Fall 2002

Job Title - Categories * Age Group Crosstabulation

% within Age Group

		Age Group					Total (n=69)
		18 - 22 yrs. (n=12)	23 - 29 yrs. (n=18)	30 - 39 yrs. (n=7)	40+ yrs. (n=31)	Under 18 yrs. (n=1)	
Job Title -	Body Tech Assistant				3.2%		1.4%
Categories	Business Owner			14.3%	3.2%		2.9%
	Auto Tech		5.6%		3.2%		2.9%
	Carpenter	8.3%	11.1%				4.3%
	Cashier		11.1%				2.9%
	Sales	25.0%	11.1%				7.2%
	Engineer/Sr. Engineer		5.6%		16.1%		8.7%
	Engineering Tech		5.6%				1.4%
	Equipment Operator	8.3%		14.3%			2.9%
	General Motors Team Tech				6.5%		2.9%
	Lab Tech				6.5%		2.9%
	Labor/Laborer	8.3%		14.3%			2.9%
	Mechanic/Driver - Mechanic				19.4%		8.7%
	Manager/Assistant Manager	8.3%	11.1%				4.3%
	Painter's Helper/Prep & Paint/Prep Person	8.3%	11.1%			100.0%	5.8%
	Detailer	8.3%					1.4%
	Machinist				6.5%		2.9%
	Retired				6.5%		2.9%
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer			14.3%	12.9%		7.2%
	Technical Writer		11.1%				2.9%
	Metal Model Maker				6.5%		2.9%
	Other Manufacturing-Related				3.2%		1.4%
	Other Technical		5.6%		6.5%		4.3%
	Other	25.0%	11.1%	42.9%			11.6%
Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Crosstabs

Will use knowledge/skills for personal/hobby * Age Group * Term Crosstabulation

% within Age Group

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills for personal/hobby	No		16.7%	100.0%		100.0%	14.3%
		Yes	100.0%	83.3%		100.0%		85.7%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Winter 2002	Will use knowledge/skills for personal/hobby	No	33.3%	33.3%		5.6%		14.3%
		Yes	66.7%	66.7%	100.0%	94.4%		85.7%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%
Fall 2002	Will use knowledge/skills for personal/hobby	No	36.4%	42.9%	42.9%			33.3%
		Yes	63.6%	57.1%	57.1%	100.0%		66.7%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%

Will use knowledge/skills for self-employment * Age Group * Term Crosstabulation

% within Age Group

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills for self-employment	No		66.7%		41.7%		42.9%
		Yes	100.0%	33.3%	100.0%	58.3%	100.0%	57.1%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Winter 2002	Will use knowledge/skills for self-employment	No	66.7%	66.7%		72.2%		67.9%
		Yes	33.3%	33.3%	100.0%	27.8%		32.1%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%
Fall 2002	Will use knowledge/skills for self-employment	No	54.5%	57.1%	42.9%	80.0%		56.7%
		Yes	45.5%	42.9%	57.1%	20.0%		43.3%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%

Oakland Community College
Collision Auto Repair In-Class Survey: Supplemental Data
Fall 2002

Will use knowledge/skills in same job with current employer * Age Group * Term Crosstabulation

% within Age Group

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills in same job with current employer	No	100.0%	100.0%	100.0%	91.7%	100.0%	95.2%
		Yes				8.3%		4.8%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Winter 2002	Will use knowledge/skills in same job with current employer	No	100.0%	50.0%	100.0%	94.4%		85.7%
		Yes		50.0%		5.6%		14.3%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%
Fall 2002	Will use knowledge/skills in same job with current employer	No	90.9%	85.7%	100.0%	100.0%		93.3%
		Yes	9.1%	14.3%				6.7%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%

Will use knowledge/skills to get a new job with a different employer * Age Group * Term Crosstabulation

% within Age Group

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills to get a new job with a different employer	No		66.7%	100.0%	91.7%	100.0%	81.0%
		Yes	100.0%	33.3%		8.3%		19.0%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Winter 2002	Will use knowledge/skills to get a new job with a different employer	No	66.7%	50.0%	100.0%	100.0%		85.7%
		Yes	33.3%	50.0%				14.3%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%
Fall 2002	Will use knowledge/skills to get a new job with a different employer	No	63.6%	42.9%	71.4%	100.0%		66.7%
		Yes	36.4%	57.1%	28.6%			33.3%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%

Oakland Community College
Collision Auto Repair In-Class Survey: Supplemental Data
Fall 2002

Will use knowledge/skills to get a new job with current employer * Age Group * Term Crosstabulation

% within Age Group

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills to get a new job with current employer	No	100.0%	83.3%	100.0%	100.0%	100.0%	95.2%
		Yes		16.7%				4.8%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Winter 2002	Will use knowledge/skills to get a new job with current employer	No	66.7%	83.3%	100.0%	94.4%		89.3%
		Yes	33.3%	16.7%		5.6%		10.7%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%
Fall 2002	Will use knowledge/skills to get a new job with current employer	No	100.0%	85.7%	100.0%	80.0%		93.3%
		Yes		14.3%		20.0%		6.7%
	Total		100.0%	100.0%	100.0%	100.0%		100.0%

Will use knowledge/skills to transfer to another college/university * Age Group * Term Crosstabulation

% within Age Group

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills to transfer to another college/university	No	100.0%	83.3%	100.0%	100.0%	100.0%	95.2%
		Yes		16.7%				4.8%
	Total		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Winter 2002	Will use knowledge/skills to transfer to another college/university	No	100.0%	100.0%	100.0%	100.0%		100.0%
		Total		100.0%	100.0%	100.0%	100.0%	100.0%
	Fall 2002	Will use knowledge/skills to transfer to another college/university	No	90.9%	85.7%	85.7%	100.0%	
Yes			9.1%	14.3%	14.3%			10.0%
Total			100.0%	100.0%	100.0%	100.0%		100.0%

Crosstabs

what extent is this job related to automotive repair? * Reason for taking course: Prepare for ASE National Certification Exam * Term Crosstabulation

% within Reason for taking course: Prepare for ASE National Certification Exam

Term			Reason for taking course: Prepare for ASE National Certification Exam		Total
			No	Yes	
Fall 2001	To what extent is this job related to automotive repair?	Highly Related	58.8%	66.7%	60.0%
		Somewhat Related	17.6%		15.0%
		Not At All Related	23.5%	33.3%	25.0%
	Total		100.0%	100.0%	100.0%
Winter 2002	To what extent is this job related to automotive repair?	Highly Related	47.6%	100.0%	56.0%
		Somewhat Related	19.0%		16.0%
		Not At All Related	33.3%		28.0%
	Total		100.0%	100.0%	100.0%
Fall 2002	To what extent is this job related to automotive repair?	Highly Related	20.0%	40.0%	28.0%
		Somewhat Related	33.3%	10.0%	24.0%
		Not At All Related	46.7%	50.0%	48.0%
	Total		100.0%	100.0%	100.0%

Crosstabs

**Job Title - Categories * Reason for taking course: Prepare for ASE
 National Certification Exam Crosstabulation - FALL 2001**

% within Reason for taking course: Prepare for ASE National Certification Exam

		Reason for taking course: Prepare for ASE National Certification Exam		Total
		No	Yes	
Job Title -	Carpenter		33.3%	5.3%
Categories	Sales	6.3%	33.3%	10.5%
	Engineer/Sr. Engineer	18.8%		15.8%
	Equipment Operator	6.3%		5.3%
	General Motors Team Tech	6.3%		5.3%
	Lab Tech	6.3%		5.3%
	Mechanic/Driver - Mechanic	18.8%		15.8%
	Manager/Assistant Manager	6.3%		5.3%
	Painter's Helper/Prep & Paint/Prep Person	6.3%		5.3%
	Machinist	6.3%		5.3%
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer	6.3%		5.3%
	Technical Writer		33.3%	5.3%
	Metal Model Maker	6.3%		5.3%
	Other	6.3%		5.3%
Total		100.0%	100.0%	100.0%

Crosstabs

Job Title - Categories * Reason for taking course: Prepare for ASE
 National Certification Exam Crosstabulation - WINTER 2002

% within Reason for taking course: Prepare for ASE National Certification
 Exam

		Reason for taking course: Prepare for ASE National Certification Exam		Total
		No	Yes	
Job Title -	Body Tech Assistant		25.0%	4.0%
Categories	Auto Tech	4.8%		4.0%
	Cashier	4.8%		4.0%
	Engineer/Sr. Engineer	14.3%		12.0%
	General Motors Team Tech	4.8%		4.0%
	Mechanic/Driver - Mechanic	14.3%		12.0%
	Manager/Assistant Manager	4.8%		4.0%
	Painter's Helper/Prep & Paint/Prep Person		25.0%	4.0%
	Detailer	4.8%		4.0%
	Machinist	4.8%		4.0%
	Retired	9.5%		8.0%
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer	14.3%		12.0%
	Technical Writer		25.0%	4.0%
	Metal Model Maker	4.8%		4.0%
	Other Technical	9.5%		8.0%
	Other	4.8%	25.0%	8.0%
Total		100.0%	100.0%	100.0%

Crosstabs

Job Title - Categories * Reason for taking course: Prepare for ASE National Certification Exam Crosstabulation - FALL 2002

% within Reason for taking course: Prepare for ASE National Certification Exam

		Reason for taking course: Prepare for ASE National Certification Exam		Total
		No	Yes	
Job Title - Categories	Business Owner	14.3%		8.3%
	Auto Tech		10.0%	4.2%
	Carpenter		20.0%	8.3%
	Cashier	7.1%		4.2%
	Sales	7.1%	20.0%	12.5%
	Engineering Tech	7.1%		4.2%
	Equipment Operator		10.0%	4.2%
	Lab Tech	7.1%		4.2%
	Labor/Laborer	7.1%		4.2%
	Manager/Assistant Manager	7.1%		4.2%
	Painter's Helper/Prep & Paint/Prep Person		20.0%	8.3%
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer	7.1%		4.2%
	Other Manufacturing-Related	7.1%		4.2%
	Other Technical		10.0%	4.2%
	Other	28.6%	10.0%	20.8%
	Total	100.0%	100.0%	100.0%

SUPPLEMENTAL CROSSTABS – COUNTS ONLY

Crosstabs

Current Employment Status * Age Group Crosstabulation

Count

		Age Group					Total
		18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Current Employment Status	Full Time (30+ hours)	8	18	7	30		63
	Part Time (<30 hours)	5	1			1	7
	Unemployed	2		2			4
	Out of Labor Force				5		5
Total		15	19	9	35	1	79

To what extent is this job related to automotive repair? * Age Group Crosstabulation

Count

		Age Group					Total
		18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
To what extent is this job related to automotive repair?	Highly Related	4	10	3	16	1	34
	Somewhat Related	1	3	1	8		13
	Not At All Related	8	6	3	7		24
Total		13	19	7	31	1	71

Job Title - Categories * Age Group Crosstabulation

Count		Age Group					Total
		18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Job Title -	Body Tech Assistant				1		1
Categories	Business Owner			1	1		2
	Auto Tech		1		1		2
	Carpenter	1	2				3
	Cashier		2				2
	Sales	3	2				5
	Engineer/Sr. Engineer		1		5		6
	Engineering Tech		1				1
	Equipment Operator	1		1			2
	General Motors Team Tech				2		2
	Lab Tech				2		2
	Labor/Laborer	1		1			2
	Mechanic/Driver - Mechanic				6		6
	Manager/Assistant Manager	1	2				3
	Painter's Helper/Prep & Paint/Prep Person	1	2			1	4
	Detailer	1					1
	Machinist				2		2
	Retired				2		2
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer			1	4		5
	Technical Writer		2				2
	Metal Model Maker				2		2
	Other Manufacturing-Related				1		1
	Other Technical		1		2		3
	Other	3	2	3			8
Total		12	18	7	31	1	69

Crosstabs

Will use knowledge/skills for personal/hobby * Age Group * Term Crosstabulation

Count

Term				Age Group					Total
				18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills for personal/hobby	No		1	1			1	3
		Yes	1	5		12		18	
	Total		1	6	1	12	1	21	
Winter 2002	Will use knowledge/skills for personal/hobby	No	1	2		1		4	
		Yes	2	4	1	17		24	
	Total		3	6	1	18		28	
Fall 2002	Will use knowledge/skills for personal/hobby	No	4	3	3			10	
		Yes	7	4	4	5		20	
	Total		11	7	7	5		30	

Will use knowledge/skills for self-employment * Age Group * Term Crosstabulation

Count

Term				Age Group					Total
				18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills for self-employment	No		4		5		9	
		Yes	1	2	1	7	1	12	
	Total		1	6	1	12	1	21	
Winter 2002	Will use knowledge/skills for self-employment	No	2	4		13		19	
		Yes	1	2	1	5		9	
	Total		3	6	1	18		28	
Fall 2002	Will use knowledge/skills for self-employment	No	6	4	3	4		17	
		Yes	5	3	4	1		13	
	Total		11	7	7	5		30	

Will use knowledge/skills in same job with current employer * Age Group * Term Crosstabulation

Count

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills in same job with current employer	No	1	6	1	11	1	20
		Yes				1		1
	Total		1	6	1	12	1	21
Winter 2002	Will use knowledge/skills in same job with current employer	No	3	3	1	17		24
		Yes		3		1		4
	Total		3	6	1	18		28
Fall 2002	Will use knowledge/skills in same job with current employer	No	10	6	7	5		28
		Yes	1	1				2
	Total		11	7	7	5		30

Will use knowledge/skills to get a new job with a different employer * Age Group * Term Crosstabulation

Count

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills to get a new job with a different employer	No		4	1	11	1	17
		Yes	1	2		1		4
	Total		1	6	1	12	1	21
Winter 2002	Will use knowledge/skills to get a new job with a different employer	No	2	3	1	18		24
		Yes	1	3				4
	Total		3	6	1	18		28
Fall 2002	Will use knowledge/skills to get a new job with a different employer	No	7	3	5	5		20
		Yes	4	4	2			10
	Total		11	7	7	5		30

Will use knowledge/skills to get a new job with current employer * Age Group * Term Crosstabulation

Count

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills to get a new job with current employer	No	1	5	1	12	1	20
		Yes		1				1
	Total		1	6	1	12	1	21
Winter 2002	Will use knowledge/skills to get a new job with current employer	No	2	5	1	17		25
		Yes	1	1		1		3
	Total		3	6	1	18		28
Fall 2002	Will use knowledge/skills to get a new job with current employer	No	11	6	7	4		28
		Yes		1		1		2
	Total		11	7	7	5		30

Will use knowledge/skills to transfer to another college/university * Age Group * Term Crosstabulation

Count

Term			Age Group					Total
			18 - 22 yrs.	23 - 29 yrs.	30 - 39 yrs.	40+ yrs.	Under 18 yrs.	
Fall 2001	Will use knowledge/skills to transfer to another college/university	No	1	5	1	12	1	20
		Yes		1				1
	Total		1	6	1	12	1	21
Winter 2002	Will use knowledge/skills to transfer to another college/university	No	3	6	1	18		28
		Total		3	6	1	18	
	Fall 2002	Will use knowledge/skills to transfer to another college/university	No	10	6	6	5	
Yes			1	1	1			3
Total			11	7	7	5		30

Crosstabs

Job Title - Categories * Reason for taking course: Prepare for ASE
 National Certification Exam Crosstabulation - FALL 2001

Count

		Reason for taking course: Prepare for ASE National Certification Exam		Total
		No	Yes	
Job Title -	Carpenter		1	1
Categories	Sales	1	1	2
	Engineer/Sr. Engineer	3		3
	Equipment Operator	1		1
	General Motors Team Tech	1		1
	Lab Tech	1		1
	Mechanic/Driver - Mechanic	3		3
	Manager/Assistant Manager	1		1
	Painter's Helper/Prep & Paint/Prep Person	1		1
	Machinist	1		1
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer	1		1
	Technical Writer		1	1
	Metal Model Maker	1		1
	Other	1		1
Total		16	3	19

Crosstabs

Job Title - Categories * Reason for taking course: Prepare for ASE
 National Certification Exam Crosstabulation- WINTER 2002

Count

		Reason for taking course: Prepare for ASE National Certification Exam		Total
		No	Yes	
Job Title -	Body Tech Assistant		1	1
Categories	Auto Tech	1		1
	Cashier	1		1
	Engineer/Sr. Engineer	3		3
	General Motors Team Tech	1		1
	Mechanic/Driver - Mechanic	3		3
	Manager/Assistant Manager	1		1
	Painter's Helper/Prep & Paint/Prep Person		1	1
	Detailer	1		1
	Machinist	1		1
	Retired	2		2
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer	3		3
	Technical Writer		1	1
	Metal Model Maker	1		1
	Other Technical	2		2
	Other	1	1	2
Total		21	4	25

Crosstabs

Job Title - Categories * Reason for taking course: Prepare for ASE National Certification Exam Crosstabulation- FALL 2002

Count

		Reason for taking course: Prepare for ASE National Certification Exam		Total
		No	Yes	
Job Title -	Business Owner	2		2
Categories	Auto Tech		1	1
	Carpenter		2	2
	Cashier	1		1
	Sales	1	2	3
	Engineering Tech	1		1
	Equipment Operator		1	1
	Lab Tech	1		1
	Labor/Laborer	1		1
	Manager/Assistant Manager	1		1
	Painter's Helper/Prep & Paint/Prep Person		2	2
	Sr. Designer/Sr. Engine Designer/Sr. Product Designer	1		1
	Other Manufacturing-Related	1		1
	Other Technical		1	1
	Other	4	1	5
Total		14	10	24

CAR CLASS ROSTERS – FALL 2002

- The data provided in the tables for the credit courses, CAR 1100, CAR 1200, and CAR 1600 are based upon Fall 2002 One-Tenth Day data. The data source for the non-credit course, MEST 1017 (Classic Auto Repair) is the Student Information System, Non-Traditional Term Annual Year 2002-2003 data, as of December 4, 2002. The list for each course is sorted by students' last names.
- Although there several students are enrolled in multiple credit CAR courses, there were no students enrolled in both the non-credit course (MEST 1017) and the credit courses.

Students in CAR 1100 Course
 Fall 2002 One-Tenth Day Data

ID	LNAME	FNAME	MNAME	PREVSESS	CRPROG	NCPROG	Course1	Course2	Course3	Course4
511803	Alexander	Christopher	James	2002/WI	AUS.AAS		CIS1050	CAR1100	MAT1150	
583555	Carson	James	L		UND.NON		CAR1100	CAR1200		
585520	Cheairs	Oscar	B		AUS.AAS		CAR1100	CAR1200	CAR1600	
325032	Cohee	Michael	Todd	2002/SU	AUS.AAS		CAR1100			
559566	D'Onofrio	Dino	R		AUS.AAS		CAR1100	CAR1600		
386463	Early	Gavin	Cleveland	2002/WI	ACC.AAS		CAR1100	CAR1200		
282041	Fuller	Rory	Martin	2002/WI	UND.NON		MAT1100	ATW1120	CAR1100	
589939	Gartee	Matthew	Allen		AUS.AAS		CAR1100	ATA1500		
516941	Hvizdos	Alan	J	2002/WI	UND.NON	NCP.COL	CAR1100			
347068	Illingworth	Brian	Edward	2002/WI	MGT.BUS.AAS	NCS.NON	CAR1100			
158190	Klein	Joshua	James	2002/SU	AUS.AAS		CAR1100	ATA1500		
177835	Krull	Ben	Alan	2001/WI	NDS.NON		CAR1100			
591400	Little	Johnny	A		UND.NON		CAR1100	CAR1200		
372987	Louris	Robert	Terrance	2002/WI	CAR.NRT.CT	NCP.CAR	CAR1100	CAR1200	CAR1600	
580552	Mendelsohn	Matthew	Michael		UND.NON		CAR1100	BUS1210	PER1740	PER2540
588514	Snopek	Matt	R		UND.NON		CAR1100	CAR1200		
468880	Stajniak	George	L	2002/WI	AUS.AAS	NCP.COL	CAR1100			
498653	Staley	James	B	2002/WI	AUS.AAS	NCS.NON	CAR1100			
575165	Szymanski	Mark	P		CHT.AAS		MAT1100	CAR1100	ATA1100	
584551	Williams	Rene	Bradford		UND.NON		CAR1100	CAR1200	CAR1600	

NCS.NON=Non-Credit Student
 NDS.NON=Non-Degree Seeking
 NCP=Non-Credit Program

Students in CAR 1200 Course
Fall 2002 One-Tenth Day Data

ID	LNAME	FNAME	MNAME	PREVSESS	CRPROG	NCPROG	Course1	Course2	Course3	Course4
403803	Biggers	Richard	C	2002/WI	ETT.AAS		CAR1200			
583555	Carson	James	L		UND.NON		CAR1100	CAR1200		
585520	Cheairs	Oscar	B		AUS.AAS		CAR1100	CAR1200	CAR1600	
395215	Ciatti	Mark	Sal	2002/WI	UND.NON	NCP.COL	CAR1200			
459522	Cunningham	Sheila	Lynne	2001/SU	NDS.NON	NCS.NON	CAR1200			
386463	Early	Gavin	Cleveland	2002/WI	ACC.AAS		CAR1100	CAR1200		
337021	Gaynor	Gregory	C		AUS.AAS		CAR1200	ATA1400	ATA1500	
580731	Green	Matthew			CHT.AAS		CAR1200	SPA1510	SOC2510	PER1730
53030	Hairston	Steven	D	2002/WI	AUS.AAS		BUS1100	ATW1120	CAR1200	PER1740
464936	Innes	James	Clayton	2001/FA	BUS.ABA		ATW8210	CAR1200	QAT1020	CHE1510
588505	Irby	Andrew	Willian		UND.NON		MAT1050	CAR1200	ATA1300	
591400	Little	Johnny	A		UND.NON		CAR1100	CAR1200		
372987	Louris	Robert	Terrance	2002/WI	CAR.NRT.CT	NCP.CAR	CAR1100	CAR1200	CAR1600	
583029	Messer	Michael	Jay		UND.NON		SOC2510	CAR1200		
495138	Norstrand	Charles	Oscar	2002/WI	UND.NON		CAR1200	CAR1600	ATA1500	
588514	Snopek	Matt	R		UND.NON		CAR1100	CAR1200		
193727	Tewksbury	Gregory	Robert	1998/WI	AUS.AAS		CAR1200			
492685	Vanrogov	Harry	O	2002/WI	NDS.NON	NCS.NON	CAR1200			
281816	Vargo	Christopher	Michael	1999/SP	GEN.AGS		CAR1200			
584551	Williams	Rene	Bradford		UND.NON		CAR1100	CAR1200	CAR1600	

NCS.NON=Non-Credit Student
NDS.NON=Non-Degree Seeking
NCP=Non-Credit Program

Collision Auto Repair In-Class Survey: Supplemental Data
Fall 2002Students in CAR 1600 Course
Fall 2002 One-Tenth Day Data

ID	LNAME	FNAME	MNAME	PREVSESS	CRPROG	NCPROG	Course1	Course2	Course3	Course4
353793	Ayers	Matthew	Frank	2002/WI	BIS.AAS		CAR1600	MAT1100	CAD1200	
265435	Brewer	Keith	Leonard	2002/WI		NCS.NON	CAR1600			
138754	Byrd	Brian	Anthony	2002/WI	MGT.SBO.AAS		PSY2510	CAR1600	ART1510	
585520	Cheairs	Oscar	B		AUS.AAS		CAR1100	CAR1200	CAR1600	
47281	Clark	Charles	Lee	2002/SU	AUS.AAS		CAR1600	CAD1200	ATA1200	
559566	D'Onofrio	Dino	R		AUS.AAS		CAR1100	CAR1600		
239485	Gugni	Jeffrey	D	2002/WI	UND.NON		CAR1600	BUS1100	BIO1530	CIS1050
453803	Hartkopf	Thomas	Alan	2002/SU	UND.NON		CAR1600			
583592	Hynes	Jeffrey	William		CAD.CAE.AAS		CIS1050	ATW1120	CAR1600	CAD1100
50335	Konopa	Gregory	S	2002/WI	UND.NON		CAR1600	MAT1100		
288706	Lagest	Adrian	Clay	2002/WI	CAD.CAE.AAS		CAR1600			
282025	Long	Jason	Patrick	2002/SU	AUS.AAS		ATW1120	CAR1600	ATA1300	
372987	Louris	Robert	Terrance	2002/WI	CAR.NRT.CT	NCP.CAR	CAR1100	CAR1200	CAR1600	
52092	Mitchell	Larry	D	2002/SU	EGR.PRE.ASC		CAR1600	MAT1100	ART1540	ENG1520
150756	Moreno	Apolonio		2002/SU	AUS.AAS		CAR1600	IND1404		
495138	Norstrand	Charles	Oscar	2002/WI	UND.NON		CAR1200	CAR1600	ATA1500	
187669	Tamm	Tim	M	2002/SU	NDS.NON		CAR1600	ATF1400	APT8500	
584551	Williams	Rene	Bradford		UND.NON		CAR1100	CAR1200	CAR1600	
300661	Woodcox	Lisa	Dawn	1997/SU	UND.NON	NCS.NON	CAR1600			
586457	Zitta	Duane	T		UND.NON		ATW1120	CAR1600	PER1862	ACC2510

NCS.NON=Non-Credit Student

NDS.NON=Non-Degree Seeking

NCP=Non-Credit Program

**Students in Non-Credit MEST 1017 Course (Classic Auto Repair)
 Fall 2002**

ID	LNAME	FNAME	MNAME	PREVSESS	CRPROG	NCPROG	Course1
0241100	Buck	Richard	Allen	2002/WI	VBT.AAS	NCP.COL	MES1017
0126085	Chisholm	Thomas	D	2001/FA		NCP.COL	MES1017
0272935	Crabtree	Roger	W	2002/WI		NCP.COL	MES1017
0593497	Good	Steven	A			NCP.COL	MES1017
0093725	Jaynes	Leonard	Allen	2002/WI	UND.NON	NCP.COL	MES1017
0574103	Kobylko	Larry		2002/WI	AUS.AAS	NCP.COL	MES1017
0174105	Mc Lean	Kyle	Frederick	2002/AY	UND.NON	NCP.COL	MES1017
0426213	Neubauer	Raymond	A	2002/WI	VBT.AAS	NCP.COL	MES1017

NCP=Non-Credit Program