Emergency Medical Services
Student Phone Survey Results¹

Rural Emergency Medical Services Outreach Project
and
University Center for Economic Development

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Overview

This report summarizes the findings of a phone survey of students who had taken emergency medical technician training classes held throughout rural Nevada in the fall of 2002, spring 2003 and early summer 2003. The students included in the survey were all recipients of financial aid that helped offset the costs of the classes. The aid was part of a program sponsored by the Rural Emergency Medical Services (EMS) Outreach Project. The purpose of this report is to track the impacts of the program on Nevada’s rural emergency medical services workforce.

Data was collected in house by the Rural EMS Outreach Project at Great Basin College in Elko, Nevada in August 2003. The population surveyed was composed of the 146 students who were recipients of financial aid for emergency medical training classes in rural Nevada. Respondents were asked ten questions regarding certification levels before and after the class, agency worked for (if any) before taking the class and after taking the class, years of service and the importance of financial aid. The data were then analyzed and compiled into this report by the University Center for Economic Development. In this report, several charts show the make-up of total student enrollment in the program. Then a short statement regarding each question from the phone survey is followed by a chart or charts illustrating the responses to that question.

A large percentage (77%) of the students indicated that financial aid was an important factor in making the decision to attend EMT classes. After the classes, more of the students reported working at EMS agencies than had worked for the agencies before the classes. In addition, 23 students enrolled in classes that prepared them to offer EMT instruction.

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Survey Findings

Total class enrollment for the program was 146 students. Figures 1, 2 and 3 show when, where and in which type of classes the 146 students were enrolled. 93 students participating in the program were enrolled in the spring of 2003. 44 students attended in May and June 2003. Only one program class was given in the fall of 2002 with nine enrollees.

**Figure 1. Total Students by Enrollment Date**

The largest number of students, 57, were enrolled in Elko, the largest of the rural cities participating. The next largest number of participants were in Ely and Winnemucca with 22 and 21 students, respectively.

**Figure 2. Total Students by Class Location**
Three types of classes were offered: Emergency Medical Technician (EMT) Basic training, EMT Intermediate training and EMT Instructor training. A similar number of students enrolled in the Basic (62) and Intermediate (61) classes each making up about 42% of the total group. 23 students took the instructor training course.

Figure 3. Total Students by Type of Class
64 students responded to the questionnaire for a return rate of 43.8%. A total of 82 or 56.2% of students either did not respond to the survey, did not have a phone, were working out-of-town or had moved from the area.

**Figure 4. Response Rate**

![Response Rate Graph](image)

Figure 5 shows when the respondents (those who responded to the phone survey) took their classes. A larger proportion of the May-June 2003 graduates (26 of the total 44 or 59%) responded. The experiences the students with the best response rate will have greater proportional influence on reported results.

**Figure 5. Respondents by Date Enrolled**

![Respondents by Date Graph](image)
As with the total class enrollment, the largest group of respondents, 38, had taken classes in Elko, the largest of the cities where the program was offered. The second largest group had taken classes in Yerington, followed by Winnemucca.

**Figure 6. Respondents by Class Location**

<table>
<thead>
<tr>
<th>City</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austin</td>
<td>2</td>
</tr>
<tr>
<td>Elko</td>
<td>38</td>
</tr>
<tr>
<td>Ely</td>
<td>3</td>
</tr>
<tr>
<td>Eureka</td>
<td>2</td>
</tr>
<tr>
<td>Lovelock</td>
<td>0</td>
</tr>
<tr>
<td>Lund</td>
<td>1</td>
</tr>
<tr>
<td>Owyhee</td>
<td>2</td>
</tr>
<tr>
<td>Wendover</td>
<td>5</td>
</tr>
<tr>
<td>Winnemucca</td>
<td>5</td>
</tr>
<tr>
<td>Yerington</td>
<td>6</td>
</tr>
</tbody>
</table>

30 of the respondents had taken the Intermediate Emergency Medical Training classes, 20 had taken the Basic Training and 14 had taken the Instructor Training classes. The best response rate (14/23 or 61%) was from those who had taken the instructor course followed by those who had taken the intermediate class (30/61 or 49%).

**Figure 7. Respondents by Type of Class**

<table>
<thead>
<tr>
<th>Type of Class</th>
<th>Number of Respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic</td>
<td>20</td>
</tr>
<tr>
<td>Intermediate</td>
<td>30</td>
</tr>
<tr>
<td>Instructor</td>
<td>14</td>
</tr>
</tbody>
</table>
Nearly 30% (18) of the students sampled were not certified before taking the class and 2 were first responders. Approximately half (34) of the group were originally certified at the basic EMT level. Ten individuals (15.6%) were already certified at the intermediate level before taking the class. After taking the classes, 6 individuals, approximately 9% of the students, remained without certification and one first responder had not increased his or her certification level. 12 individuals who had not been certified at any level obtained their certification, and the number of individuals certified at the intermediate level increased by 30 with corresponding decreases in the number of basic and first responder certification. Note that those who took the instructor course (14 individuals) would not increase their certification level. No information on the teaching activity of those who took the instructor class was collected.

It appears from the above that those taking the basic classes had the most difficulty in completing the entire certification process, with as many as seven of the twenty not increasing their certification level. Approximately 65% of the group enrolled in the basic level classes were able to complete the certification process. Those taking the intermediate class appear to have had a 100% success rate, since thirty enrolled in intermediate classes and thirty more certifications at that level were reported. Extrapolating these figures to the total class enrollment (62 in the Basic EMT course and 61 in the intermediate course) would give a total of 40 individuals with new certifications and 61 individuals who increased their certification level to intermediate.

**Figure 8. Number of Students By Certification Level Before and After Taking Classes**
Students were asked whether they worked for an EMS agency before taking the class and then whether they worked for an EMS agency after taking the class. 46 (approximately 72%) of the students already worked for such an agency before taking the class. 54 people, for a net increase of eight (17% increase) reported working for an EMS agency after taking the classes. If it were assumed that 72% of the total group of 164 students also worked for an agency before taking a class, and further assumed that the net increase in agency workers was 17%, there would be a net increase of 18 new agency workers from the program. The individuals who worked for an agency before the class may have had a different job title after the class but this information was not collected in the phone survey. Since the program produced an estimated 61 individuals who increased their certification level, it is assumed that the quality of the EMS workforce was correspondingly improved.

**Figure 9. Number of Students Working for an Emergency Medicine Related Agency Before and After Taking Classes**
Almost half of respondents had served 2 years or less as an EMT, and about 9% of the students had not yet served as an EMT. Another 33% had served from three to five years as Emergency Medical Services personnel. The program attracted largely those who were relatively new to the field of emergency medicine. The instructor course likely was taken by some of the students reporting longer service.

**Figure 10. Lifetime Years Served as an EMT**

- 0 yrs.: 9.4%
- <1 yr. to 2 yrs.: 37.5%
- 3-5 yrs.: 32.8%
- 6 - 10 yrs.: 6.3%
- 11 or more yrs.: 14.1%
Figure 9 shows the distribution of the respondent group’s work years by certification level. The group as a whole had served close to 78% of their working years as EMT Basics. None of the group reported ever working as a paramedic.

**Figure 11. Percent of Group Total Service Years By Certification Level**
When student respondents were asked how important financial aid was, 49 of the 64 (76.6%) ranked the financial aid as a seven in importance, where one was least important and seven was most important.

**Figure 12. How Important Was Financial Aid On a Scale From 1 to 7?**
Conclusion

The survey results indicate that a majority of the EMT students did consider financial aid very important. The respondent group reported a total of 12 new certifications. 30 respondents increased their certification level to intermediate. Using the same course completion rates applied to the entire student group, it is estimated that the program enabled 40 individuals to obtain their first certification and 61 individuals to increase their certification level. The respondent group reported a net increase of eight more individuals working for EMS agencies after taking the classes than had been working for agencies before the classes. An extrapolation to the entire student population gives an estimated net increase of 18 new EMS agency workers produced as a result of the program. In addition, 23 individuals had enrolled in the instructor courses. It would appear that financial aid did have a positive impact both in increasing EMT numbers in rural Nevada EMT agencies and increasing the level of training of agency workers.