Introduction
Humboldt County lies in the far north coastal region of rural California. This area of California has a low population and is geographically isolated by its distance from any large cities. There are no large manufacturing companies in this region of the state. This region is served by the College of the Redwoods (CR) in Eureka, California, offering post-secondary training in many technical disciplines including manufacturing technology. Although this training is considered to be state of the art and appropriate for the needs of local niche manufacturers, there had been no rigorous analysis of the needs of the manufacturing community served by the college. This document is a summary of the results from a Master’s Degree project at Purdue University that sought to identify the needs of these niche manufacturers.

The global demand for well-trained employees in technical fields continues to grow while experienced workers continue to retire, creating a shortage of qualified personnel to fill jobs. Manufacturing companies are facing a shortage of skilled employees to perform the work needed to meet the demands for their products. There are jobs available that pay good wages yet employers have difficulty finding qualified people (Bolch & Galvin, 2001; Clouse, 2006; Katz, 2007; Skilled Worker Crisis, 2006; Vinas 2005).

Members of the Manufacturing Technology Advisory Committee at the CR have consistently commented that it is difficult to find skilled production employees in this region of California. This problem causes employers to lose profitability because they must spend additional resources training their newly hired employees. Product quality suffers as a result of the lack of employee skills. Additionally, there is a trend at the CR where few graduating students are placed in local niche manufacturing jobs. To better serve these niche manufacturers, there must be alignment between the college curriculum and employer needs. If educators who teach industrial skills do not change their program content to align with employer needs, then the trend of low student placement will continue. Also, the effectiveness of existing programs may be poor since the needs of employers are not well established.

The CR serves three counties on the northern coast of California. These are Del Norte, Humboldt, and Mendocino Counties. These three counties are highlighted in Figure 1. The bulk of the durable goods produced in this region are manufactured in Humboldt County.

Because the area in Northern California that is served by the CR is somewhat isolated, most manufacturing is performed by small companies producing limited quantities of specialty products. Additionally, there is a lack of information about what the niche manufacturers need in their newly hired employees. These employers produce specialty items, so their needs may not match the needs of typical industrial manufacturers.

This project began by adapting the needs assessment survey instrument created by McAndrews (2008) to meet the requirements of the CR. The interview instrument in this study was not piloted, however McAndrews used it successfully in Indiana and it was based upon prior research by Dyrenfurth (n.d.) in Missouri. The skill needs assessment interview instrument is attached to this document in the Appendix. A database of employers was provided by Dennis Mullins at the North Coast Region Labor Market Information Division (LMID) of the
California Employment Development Department. This database contained 200 manufacturing companies in three counties served by the CR. This database was filtered to show 98 niche manufacturers producing durable goods in Humboldt County only. The list of manufacturers was then evaluated to select companies that had relevant technologies appropriate for the MT program at the college. For example, this list had six art glass-blowing companies and three sign manufacturers. The list contained four sales and service branches of large manufacturers located outside of Humboldt County. Also, at least three of the manufacturers had moved out of the area or gone out of business. These companies were removed from the sample. In an email, Dennis Mullins wrote “LMID does not vouch for accuracy or completeness of the list and it should be screened for duplicate employer records and other errors. An example is a number of businesses may have started or closed after the database was compiled” (D. Mullins, personal communication, February 11, 2009). Given this, the researcher augmented the sample with additional well-known manufacturing companies by searching for them by name on the California Employment Development Department’s website. The final sample consisted of 67 manufacturers producing durable goods in Humboldt County.

Subsequently, employers were contacted by telephone calls soliciting participation in this project. Some companies were not reachable or did not return calls. Other companies were not interested in participating. Seventeen manufacturers were interested in participating and letters authorizing participation in the study were obtained. This sample represents 25% of the niche manufacturers identified as appropriate for this study. All of the subjects had supervisory responsibilities and experience hiring and working with production employees.

Data Analysis
The interview instrument used in this study consists of 52 questions in five sections. The five sections of the instrument are listed in Table 1.
General information about the company

Information about the skill level of newly hired production workers

Rankings of specific skills and satisfaction level with those skills

Requirements and methods relating to skills training

The relationship between the company and the CR

General results from the interviews provide aggregate data that gives insight into what these niche manufacturers need in employee skills.

**General Information about the Companies**

The first section of the interview instrument asked for general information about the company’s products and production methods. It also asked for information regarding human resource requirements and utilization. Participants in this study were selected from a wide range of business types. The number of production employees ranged from one to 50 with a median value of six production employees. This list of participants indeed represents small manufacturing companies. Additionally, most products produced by these niche manufacturers are highly specialized. These products are produced in relatively small quantities by small manufacturers with few production employees. The frequency of responses to a question regarding what technologies are used by these manufacturers is detailed in Figure 2.

![Figure 2. Frequency of Manufacturing Technologies Identified.](image)

No participants identified Mechatronics, Automatic Storage and Retrieval, Machine Vision, RFID, Robotics, or SPC as technologies used. Since these are all small companies, these advanced technologies are not cost effective. Of the 17 participants, the main method of production reported was 24% manual, 24% slightly automated, 41% moderately automated, and 12% highly automated. One manufacturer noted that his business was “highly
automated" yet he had no CNC, PLC, Mechatronics, or Robotics. His business was based upon cam driven 
automatic screw machines only. This departure from traditional modern automation is typical of the niche 
manufacturers in Humboldt County.

Manufacturers have had to cut back on the number of employees working at their facilities. When asked how 
many employees the companies hire each year, the results are not encouraging initially. Table 2 shows that 
individual niche manufacturers in this study are not hiring many production employees in the current economic 
climate. Participants in this study indicated an average of about 1.6 new production workers will be hired each 
year per company. However, considering that at least 67 companies make up the entire population of niche 
manufacturers in Humboldt County, even under a less than optimal economic situation, 106 new employees will 
be hired this year.

<table>
<thead>
<tr>
<th>Company</th>
<th>New Hires</th>
<th>Company</th>
<th>New Hires</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>0</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>0</td>
<td>11</td>
<td>3</td>
</tr>
<tr>
<td>4</td>
<td>0</td>
<td>12</td>
<td>4</td>
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<td>5</td>
<td>0</td>
<td>13</td>
<td>12</td>
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<tr>
<td>6</td>
<td>0</td>
<td>14</td>
<td>0</td>
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<tr>
<td>7</td>
<td>0</td>
<td>15</td>
<td>1</td>
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<tr>
<td>8</td>
<td>3</td>
<td>16</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>17</td>
</tr>
</tbody>
</table>

Table 2. Number of New Production Workers Hired Per Year

General information about the niche manufacturers in this study indicated that they are small, produce highly 
specialized products and have had to react to the uncertainty in today’s economic climate by becoming more 
efficient, hiring less, and adjusting the work hours of production personnel.

Information about the Skill Level of Newly Hired Production Workers

The second section of the interview instrument asked for information regarding the skill level of newly hired 
production workers, in relation to the needs of the companies. Employers indicated that they are generally 
satisfied with the communication abilities of their newly hired production workers. Regarding technical abilities, 
53% of subjects said that they were satisfied, while 35% were dissatisfied. Subjects indicated that because their 
products are so specialized, they must spend a great deal of effort training new employees. This is illustrated in 
Figure 3 which indicates both the level of difficulty in finding skilled employees, and the gap between the skills 
and requirement of new employees.
Almost none of the subjects said that employee skill deficiencies prevent their company from expanding into new manufacturing technologies; however, 47% said that these skill deficiencies negatively impact company profits. Several subjects indicated that this is because they are spending time training employees which impacts profits. They do not see the skill deficiencies as affecting their expansion because they are able to train for new technologies. Thirty-five percent of the subjects said that employee skill deficiencies impact product quality. Seventy percent of subjects said that it is important for production employees to have technical skills beyond the high school level.

Rankings of Specific Skills and Satisfaction Level with those Skills
The third section of the interview instrument asked participants to rate the abilities of their average newly hired production employees in several areas, and then to indicate the importance of each skill. Each skill was rated as low, medium, or high importance and employees were rated as poor, satisfactory, or good in ability. The data was analyzed using a weighted scoring model.

Weights for all skills were calculated and a rank was given based upon the difference between the weighted score of skill importance minus skill ability. For example, if a subject identified a skill to be important but new employees are good at that skill, there is no skill gap. However if a subject identified a skill as important and new employees are poor at that skill, then there is a large gap. A high positive weighted score means that there is a large gap between the importance of a skill and the ability of newly hired production employees. A high negative weighted score means that newly hired employees are good at that skill, but employers do not value that skill as important. These skill gaps are shown in Table 3.
Table 3. Ranked List of Gap between Skill Importance and Employee Ability

<table>
<thead>
<tr>
<th>Rank</th>
<th>Description of Skill</th>
<th>Gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Can determine when a product does not meet specifications.</td>
<td>64.71</td>
</tr>
<tr>
<td>2.</td>
<td>Accurately executes directives given verbally.</td>
<td>58.82</td>
</tr>
<tr>
<td>3.</td>
<td>Relates product quality to customer satisfaction.</td>
<td>58.82</td>
</tr>
<tr>
<td>4.</td>
<td>Is able to make machine adjustments when necessary.</td>
<td>52.94</td>
</tr>
<tr>
<td>5.</td>
<td>Knows what OSHA regulations pertain to the operation.</td>
<td>47.06</td>
</tr>
<tr>
<td>6.</td>
<td>Accurately executes directives given in writing.</td>
<td>35.29</td>
</tr>
<tr>
<td>7.</td>
<td>Can diagnose mechanical problems in production machinery.</td>
<td>29.41</td>
</tr>
<tr>
<td>8.</td>
<td>Can monitor machine output for quality trends.</td>
<td>29.41</td>
</tr>
<tr>
<td>9.</td>
<td>Can effectively communicate verbally.</td>
<td>29.41</td>
</tr>
<tr>
<td>10.</td>
<td>Operates machinery in a safe manner.</td>
<td>11.76</td>
</tr>
<tr>
<td>11.</td>
<td>Can function in a team environment.</td>
<td>11.76</td>
</tr>
<tr>
<td>12.</td>
<td>Understands the basic principles of pneumatic power.</td>
<td>-5.88</td>
</tr>
<tr>
<td>13.</td>
<td>Can interpret technical drawings and schematics.</td>
<td>-5.88</td>
</tr>
<tr>
<td>14.</td>
<td>Can diagnose electrical problems in production machinery.</td>
<td>-11.76</td>
</tr>
<tr>
<td>15.</td>
<td>Can operate computer controlled machinery.</td>
<td>-17.65</td>
</tr>
<tr>
<td>16.</td>
<td>Understands how sensors are used in safety applications.</td>
<td>-17.65</td>
</tr>
<tr>
<td>17.</td>
<td>Possesses adequate computational skills.</td>
<td>-29.41</td>
</tr>
<tr>
<td>18.</td>
<td>Can program computer controlled machinery.</td>
<td>-29.41</td>
</tr>
<tr>
<td>19.</td>
<td>Can produce written records or reports.</td>
<td>-47.06</td>
</tr>
<tr>
<td>20.</td>
<td>Understands how sensors interact with control systems.</td>
<td>-52.94</td>
</tr>
<tr>
<td>21.</td>
<td>Understands the basic principles of hydraulic power.</td>
<td>-58.82</td>
</tr>
<tr>
<td>22.</td>
<td>Possesses basic computer skills.</td>
<td>-76.47</td>
</tr>
</tbody>
</table>

Requirements and Methods Relating to Skills Training

The fourth section of the interview instrument asked subjects about their company’s requirements and methods as they relate to employee skills training. One hundred percent of all participants said that they train employees on-the-job. Since most of these manufacturers produce specialized products, their training needs are specialized. Subjects indicated that they use the CR for training employees in 53% of the companies. Some of the subjects selected “other” for training options, listing the local university and vendor training.

Subjects were asked to select from a list of barriers to providing technical training. The data in Figure 4 shows how they responded.
Fifty-three percent of all subjects indicated that classes offered are not pertinent to their company’s needs. This result is profound and points out that a very large portion of employers located in the area served by the CR do not see the college as offering courses that can help them. Clearly the college needs to address this fact because 59% of employers noted that they encourage employees to seek outside training by reimbursing them for the cost of training and by allowing employees time off during regular work hours to attend.

The Relationship Between the Companies and the College of the Redwoods

The fifth and final section of the interview instrument asked subjects specific questions regarding the relationship between their companies and the college. Forty-seven percent of the subjects said that their company has current employees who are graduates of the CR. An overwhelming 88% of all subjects indicated that they would give preference to the CR graduates over job applicants who only had completed high-school. No participant in this study said that the CR graduates are not well prepared, while 53% said that they are well prepared. However, 47% percent of the subjects said they did not know if the CR graduates are well prepared to work at their company.

Many of the manufacturers that participated in this study do use the CR to train their employees. Forty-seven percent of the subjects indicated that they have sent current employees for specific training at the CR. Fifty-three percent of the subjects said that they have encouraged their employees to pursue a degree or certificate from the CR. Seventy-six percent of all subjects indicated that they would be interested in programs sponsored by the CR designed to increase the skill level of their employees. These statistics indicate that niche manufacturers in Humboldt County value the CR, and many of them are using the college to train their employees.

The last question of each interview was open-ended in an attempt to capture general attitudes related to the appropriate training at the CR. Almost all of the subjects said that the training is appropriate. Many of the subjects discussed that their main problem with employee’s skills is not with technical training but with
work ethics. One subject remarked that, “You can’t teach work ethic.” This sentiment was echoed by other subjects. Many manufacturers indicated that they could train employees for their specific needs but finding dedicated hard-working employees was difficult.

Conclusions & Recommendations
This needs assessment study has generated an aggregate set of employer skill needs for a moderately large sample of the entire population of niche manufacturers in Humboldt County. This data leads to the conclusions listed in Table 4.

Conclusions

1. Niche manufacturing companies in Humboldt County are small companies with specialized products and very specialized needs.

2. These manufacturers require production employees to have specialized skills that require training beyond the high school level.

3. Employers in Humboldt County have difficulty finding skilled employees.

4. Gaps exist between the skills requirements of these companies and skills that newly hired production employees possess.

5. There is a preference given to graduates from the CR when applying for production jobs in Humboldt County.

6. Specialized training programs at the college are needed to help the niche manufacturers served by the college.

7. Further research is required to examine the validity of the interview instrument and identify ways to improve it.

8. The sample size in this study should be increased.

Discussion
Humboldt County’s manufacturing community is comprised of niche manufacturers. Thus, all of the manufacturing that takes place in this unique community is done at small companies producing very specialized products. The fact that these companies are small is not a weakness; perhaps it allows them to weather the fluctuations in the global economy better than larger companies because of lower operating costs. The specialized products that these companies produce have limited competition and many of the companies included in this study are not facing drastic lay-offs or severely reduced production levels. However, the current economic environment certainly impacted this study, especially regarding data on hiring and production level changes over the last five years. Specialized products require specialized skill sets in production employees. All of the subjects said that they utilize on-the-job training and many indicated that a specialized program at the CR would be welcome. The population in Humboldt County is small and the region is geographically isolated, employers in general have difficulty finding qualified employees. Subjects in this study indicated that technical qualifications are lacking in newly hired employees, but more importantly, dedicated personnel with strong work-ethics are difficult to find. This study found gaps between skills required and skills desired in production employees.

Manufacturers in Humboldt County support and rely on the college. Preference is given to the CR graduates, employers use the college for specific training, and employees are encouraged to seek degrees and certificates from the CR. The college is respected and valued in the community that it serves.

Recommendations
Because of the uniqueness of the products manufactured in rural communities, many manufacturers’ employees require technical training in the traditional sense as well as specific training to produce unique products. This author recommends that further research be conducted in Humboldt County to attempt to more completely capture the needs of niche manufacturers because most companies located in Humboldt County are not typical of...
the U.S. manufacturing population. Future research should also attempt to include service companies as well as manufacturers because the MT program at the CR provides skills that can be applied in service jobs.

The interview instrument used in this study was accurate in capturing general employer needs; however, a revision to the interview instrument must be done to tailor the questions to smaller companies. Methods for focusing on skill gaps that are more specific to the unique needs of this region must be developed. Additionally, validity of the instrument must be established for further research because certain interview questions captured only opinions and perceptions. These questions should be modified to induce responses that represent hard numbers that can be verified in order to validate the instrument. Many participants in this study indicated a need for employee soft skills and work ethic. For example, employers are concerned about the problem of not finding employees that have good attendance and arrive at work on time and prepared to work. An improved interview instrument should include questions that capture data specific to these soft skills.

Since all of the manufacturers in Humboldt County rely heavily on in-house or on-the-job training by other employees, the CR should consider offering specialized courses and programs that focus on training the trainer. Curriculum targeting higher-level supervisory employees should be developed that cultivates skills for educating production workers.

Many manufacturers in Humboldt County state that skills training at the CR is appropriate and good for giving students basic well-rounded skill sets for working in the manufacturing field. However, these companies are in need of further training in their production employees so that they can perform all of the job requirements. Thus, the college needs to continue with its general program, but enhance the skills taught by implementing a process of continual improvement guided by input from the manufacturers in the community.

References
Vinas, T. (2005, November 1). It’s time to fix the kitchen sink; Census data show that manufacturers that don’t invest in employees will have higher turnover rates - at a time when skilled employees are becoming scarcer. Industry Week, 254(11), 26-31.
Appendix - Interview Instrument

The Manufacturing Technology Program at College of the Redwoods would like your input in a skills needs assessment interview. The results from this study will help us to improve the content of our Manufacturing Technology Curriculum. Interview results will also be included as part of a graduate school project for the College of Technology at Purdue University.

This interview process requires that you are a management level employee and that you have the authority to decide if you should participate. By participating in this interview, you are giving College of the Redwoods and Purdue University permission to collect this data.

Participation in this interview is completely voluntary. Your may discontinue your involvement at any time during the process. All participants must be at least 18 years old. Any information that you provide will be kept confidential. No identifying information will be collected from you and all data from the interview will be kept in password protected, encrypted computer files. When the data from this sheet is entered into a computer file, this sheet will be destroyed by shredding. Results from this interview will be reported in aggregate form only, with no specific company or individual identified.

This section asks for general information about your company’s products and production methods. It also asks for information regarding human resource requirements and utilization.

1. Please describe the products manufactured by your business.

________________________________________________________________________________________________
________________________________________________________________________________________________
________________________________________________________________________________________________

2. How would you describe your main method of production?
   - Manual
   - Slightly Automated
   - Moderately Automated
   - Highly Automated

3. What technologies are used by your company? (Please check all that apply.)
   - CAD (Computer Aided Drafting)
   - PDM (Product Data Management)
   - SPC (Statistical Process Control)
   - Digital Manufacturing
   - Bar Codes
   - Rapid Prototyping
   - EDM (Electro Discharge Machining)
   - CAM (Computer Aided Manufacturing)
   - Welding
   - Plating or Anodizing
   - CNC (Computer Numerical Control)
   - PLC (Programmable Logic Control)
   - Robotics
   - SPC (Statistical Process Control)
   - RFID (Radio Frequency Identification)
   - Machine Vision
   - Automatic Storage and Retrieval
   - Industrial Lasers
   - Mechatronics
   - Plastic Injection Molding
   - Other (Please specify): _______________________________

4. In terms of product output per labor hour input, how would you describe the change in the level of production at your company over the past five years?
   - Large Decrease
   - Decrease
   - No Change
   - Increase
   - Large Increase

5. Approximately how many employees do you have who work directly in the manufacturing process? (Please exclude supervisors and maintenance personnel.) _______________________________

6. How has the number of employees who work directly in the manufacturing process changed over the past five years?
   - Large Decrease
   - Decrease
   - No Change
   - Increase
   - Large Increase
7. Is your typical production worker trained to perform one specific job or cross-trained to perform two or more different jobs?
   - One specific job
   - Cross-trained for two or more different jobs

8. Please describe the work week of your typical production worker.
   *Example: 8 hours per day / 40 hours per week / always the same shift*

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This section asks for information regarding the skill level of newly hired production workers, in relation to the needs of your company.

9. Approximately how many new production employees does your company hire each year?

---

10. What is your level of satisfaction with the technical ability of newly hired production personnel?
    - Very dissatisfied
    - Dissatisfied
    - Satisfied
    - Very satisfied

11. What is your level of satisfaction with the communication ability of newly hired production personnel?
    - Very dissatisfied
    - Dissatisfied
    - Satisfied
    - Very satisfied

12. How difficult is it to find adequately skilled employees within your company’s region?
    - Very dissatisfied
    - Dissatisfied
    - Satisfied
    - Very satisfied

13. How would you describe the gap between the skills of your newly hired production workers and the needs of your company?
    - Large gap
    - Moderate gap
    - Slight Gap
    - No gap

14. Do employee skill deficiencies prevent your company from expanding into new manufacturing technologies?
    - Yes
    - No
    - Do not know

15. Do employee skill deficiencies negatively impact company profits?
    - Yes
    - No
    - Do not know

16. Do employee skill deficiencies negatively impact product quality?
    - Yes
    - No
    - Do not know

17. Approximately what percentage of your newly hired production workers have had technical skills training beyond the high school level?

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18. Is it important to your company to hire employees with technical training beyond high school?
    - Yes
    - No
    - Do not know
This section asks you to rate the abilities of your average “newly hired” production employees in each of the areas provided, and then to indicate the importance of each skill as it relates to your manufacturing operation.

Please use the following scale to grade employee ability:
P = Poor  S = Satisfactory  G = Good

Please use the following scale to rate the importance of each skill to your operation:
L = Low importance  M = Medium importance  H = High importance

19. Accurately executes directives given verbally.
   Ability: P  S  G  Importance: L  M  H

20. Accurately executes directives given in writing.
   Ability: P  S  G  Importance: L  M  H

21. Can produce written records or reports.
   Ability: P  S  G  Importance: L  M  H

22. Can effectively communicate verbally.
   Ability: P  S  G  Importance: L  M  H

23. Can function in a team environment.
   Ability: P  S  G  Importance: L  M  H

24. Possesses adequate computational skills.
   Ability: P  S  G  Importance: L  M  H

25. Can interpret technical drawings and schematics.
   Ability: P  S  G  Importance: L  M  H

26. Possesses basic computer skills.
   Ability: P  S  G  Importance: L  M  H

27. Can diagnose mechanical problems in production machinery.
   Ability: P  S  G  Importance: L  M  H

28. Can diagnose electrical problems in production machinery.
   Ability: P  S  G  Importance: L  M  H

29. Understands the basic principles of hydraulic power.
   Ability: P  S  G  Importance: L  M  H

30. Understands the basic principles of pneumatic power.
   Ability: P  S  G  Importance: L  M  H

31. Can operate computer controlled machinery.
   Ability: P  S  G  Importance: L  M  H

32. Can program computer controlled machinery.
   Ability: P  S  G  Importance: L  M  H

33. Understands how sensors interact with control systems.
   Ability: P  S  G  Importance: L  M  H
34. Relates product quality to customer satisfaction.
   Ability: P □ S □ G □ Importance: L □ M □ H □

35. Can determine when a product does not meet specifications.
   Ability: P □ S □ G □ Importance: L □ M □ H □

   Ability: P □ S □ G □ Importance: L □ M □ H □

37. Is able to make machine adjustments when necessary.
   Ability: P □ S □ G □ Importance: L □ M □ H □

38. Operates machinery in a safe manner.
   Ability: P □ S □ G □ Importance: L □ M □ H □

39. Knows what OSHA regulations pertain to the operation.
   Ability: P □ S □ G □ Importance: L □ M □ H □

40. Understands how sensors are used in safety applications.
   Ability: P □ S □ G □ Importance: L □ M □ H □

This section asks you to provide information regarding your company’s requirements and methods as they relate to employee skills training.

41. Does your company offer pay increases or promotions to employees who participate in outside training programs?
   □ Yes □ No □ Do not know

42. What is the largest barrier that your company faces in providing technical training or education to its employees? (Please check two choices from the list below.)
   □ The cost of training
   □ Classes are offered at inconvenient times
   □ Classes offered are not pertinent to our company needs
   □ Lack of interest on the part of employees
   □ Lack of interest on the part of management
   □ Lack of adequate transportation for employees
   □ Other (Please specify) ____________________________________________________________

43. How does your company provide training for production personnel? (Please check all that apply.)
   □ On the job, by other employees
   □ On the job site, by commercial trainers
   □ Send employees to a commercial trainer off-site
   □ Use of local technical or vocational college
   □ Other (Please specify) ____________________________________________________________

44. Does your company reimburse employees for the costs of attending outside training programs?
   □ Yes □ No □ Do not know

45. Does your company offer employees time off during regular work hours to attend outside training programs?
   □ Yes □ No □ Do not know
This section specifically addresses the relationship between your company and College of the Redwoods.

46. Does your company currently employ any College of the Redwoods graduates?
   - Yes  ❑ No  ❑ Do not know

47. When hiring production workers, does your company prefer College of the Redwoods graduates over applicants with only a high school diploma?
   - Yes  ❑ No  ❑ Do not know

48. Do you find College of the Redwoods graduates to be well prepared to work at your company?
   - Yes  ❑ No  ❑ Do not know

49. Have you sent any current employees to College of the Redwoods for specific training?
   - Yes  ❑ No  ❑ Do not know

50. Have you encouraged any current employees to pursue a College of the Redwoods degree or certificate?
   - Yes  ❑ No  ❑ Do not know

51. Would your company be interested in a College of the Redwoods sponsored program designed to increase the skill level of production personnel who work in and advanced manufacturing environment?
   - Yes  ❑ No  ❑ Do not know

Please give any comments related to the appropriateness of skills training available at College of the Redwoods.

________________________________________________________________________________________________
________________________________________________________________________________________________
________________________________________________________________________________________________
________________________________________________________________________________________________
________________________________________________________________________________________________

This concludes the College of the Redwoods Manufacturer’s Skill Needs Assessment interview. Thank you for taking the time to participate. The information that you provided will allow us to offer a richer educational experience to our students and better serve the community’s needs.