A FEASIBILITY STUDY OF A DIESEL MAINTENANCE PROGRAM AT NORTH ARKANSAS COLLEGE

by

MATT SHEKELS

B.S., Arkansas Tech University, 2007

A THESIS

Submitted in partial fulfillment of the requirements

for the degree

MASTER OF AGRIBUSINESS

Department of Agricultural Economics

College of Agriculture

KANSAS STATE UNIVERSITY

Manhattan, Kansas

2012

Approved by:

Major Professor
Allen M. Featherstone

ABSTRACT

As the U.S. economy has changed, the use of diesel vehicles has increased. With this increase, has come an increase in the demand of highly trained technicians to work on those vehicles. North Arkansas College of Harrison, AR is looking for opportunities to keep its program offerings current with the educational demands of its potential students. During the last few years, North Arkansas College has received requests to start a diesel vehicle maintenance program.

This thesis analyzes the feasibility of a diesel vehicle maintenance program at North Arkansas College. To determine the feasibility of such a program, all major aspects of the potential program must be considered and analyzed. The key questions addressed are: what is the interest level in the community for a diesel vehicle maintenance program, what are the major capital costs of starting the program, what would the potential operating budget resemble, and how would the program fit into the current field of area diesel maintenance programs?

To study the feasibility of a potential diesel vehicle maintenance program at North Arkansas College, four steps were completed. First, a survey was developed that measured the interest from potential students, prospective employers, and interested community members from the potential market of North Arkansas College. Second, research was done to understand how a potential diesel vehicle maintenance program would fit into the current marketplace of established diesel maintenance programs. This was done by researching and comparing area programs to the type of programs that North Arkansas College offers and

the possible model of a potential diesel vehicle maintenance program. Next, research was conducted to estimate the capital costs of starting a diesel vehicle maintenance program, as well as the potential operating budget. This was done by developing blueprints of a potential floor plan, a building to house the program, and the potential areas of study in the program. Based on these blueprints, actual bids and estimates were collected to calculate potential capital and operating costs. Finally, analysis was conducted to determine if the outcomes of a potential diesel vehicle maintenance program would fulfill the mission of North Arkansas College.

The analysis of the feasibility of a diesel vehicle maintenance program at North Arkansas College reveals that there is interest from all three parts of the community in starting a diesel vehicle maintenance program. The research also revealed that the program would be a fit in the marketplace if it was an affordable, three semester program that covered the basics of the diesel powered vehicle. Also, research of the potential costs and revenues of the program reveals that the program would be sustainable. Finally, a diesel vehicle maintenance program would have much synergy with the current programs already offered at North Arkansas College. In the end, the results suggest that it is worthwhile to move forward towards starting a diesel vehicle maintenance program.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

ACKNOWLEDGMENTS

The author wishes to thank, first of all, my Lord and Savior, Jesus Christ for giving me the strength and endurance to make it through this rewarding process. He is the very reason I even exist and am able to live my life. Second, I would like to thank the love of my life, Terrie, for standing beside me during the three years of much devoted and strenuous time it has taken to get through this time.

Next, I would like to thank my thesis committee at Kansas State University for assisting me in this journey. I would like to give a special thanks to Allen Featherstone and Mary Bowen for all of their hard work in this process. I would also like to thank everyone at North Arkansas College for their assistance in helping to gather information as well as several other items in this feasibility study. I would like to give a very special thanks to Edward Proctor for his assistance during the entire process and Katie Vaughn for her assistance during the formation of the interest survey.

Lastly, I would like to thank my entire family for being there and helping in any way they could. There were several times that I needed their help very much and they were right there to help me.

CHAPTER I: INTRODUCTION

In the last few years, there has been interest expressed for a diesel maintenance program at North Arkansas College. North Arkansas College is located in Harrison, AR and is a two year community college. There are some four year degrees available, but, for the majority, it is a community college. Administratively, this program would reside in the Business and Technology division. This division currently has certificates and degrees in the areas of general Automotive Service Tech, Collision Repair, Construction Technology, Welding Technology, Truck Driving, Engineering Technology, Biomedical Electronics, Heavy Equipment Operation, Computer Aided Design, Informational Technology, and Business Administration.

It has been suggested to the college that there would be interest in a Diesel Mechanics Program. In short, the program would probably be a two or three semester certificate that would cover all of the major systems dealing with a diesel powered vehicle. The college is interested in researching this idea as it would be potentially a great fit with the programs already offered at the college.

1.1 Purpose Statement and Objectives

The issue that the North Arkansas College wants to consider is the feasibility of a diesel mechanics program. There are three aspects that the college needs to examine to determine feasibility. First, and, probably most important; what is the overall demand for the program from the prospective students' points of view and from the prospective employers' points of view? From the overall demand perspective, the college desires a better understanding of the level of support from area businesses and corporations. One of the missions of the college is to make the community better and play an integral role in the

community. This relationship is beneficial for both the community and the college so the support of area businesses is valuable.

Next, North Arkansas College would like to know how to organize and position a diesel vehicle maintenance program in the "marketplace." This aspect would consider the curriculum, types of classes, and the expected enrollment into the program. Just as businesses must compete to gain customers, the diesel vehicle maintenance program must compete with other programs to gain an appropriate amount of student enrollment into the program. Would the college prefer to position the program with high skills and high tuition associated with an associate's degree or does it make sense to market the program as an opportunity to gain college level mechanics skills through a certificate program for a reasonable price? The college must have an idea of the competition to position the proposed program.

Finally, North Arkansas College wants to understand the primary costs involved in implementing this program. Will the college need new facilities or can it use the existing buildings? If new buildings are built, how much will the additional buildings cost? How much equipment is needed for training and how much will it cost to maintain that equipment? How many instructors will it take to do an effective job of teaching?

1.2 Motivation

For North Arkansas College to remain competitive, it must adapt to the ever changing educational needs of students. Based on general knowledge, a part of the economy that has changed in the last few years is the prevalence of diesel vehicles. Diesel vehicles represent a larger percentage of the vehicle fleet and are important for many types of equipment necessary for many industries in the overall economy. Opportunities may

present themselves for students to find employment as diesel mechanics, if they have the necessary skills to excel in this field. North Arkansas College recognizes this emerging need and wants to keep its programs current, relevant, and competitive.

1.3 The Overall Approach

There is some pertinent information that will need to be gathered to make an informed decision.

- What is the interest from the perspective employers?
- How many students would not only be interested, but willing to enroll?
- Would the community, as a whole, support the program?
- What is the expected job placement in the area?
- How many faculty will the program require and what will be the approximate salary?
- What equipment will be required and, approximately, how much will it cost?
- What are the classes that need to be taught?

The best place and method for obtaining the majority of this information is a strategically placed community survey. This survey has three target audiences; the community, prospective students, and current employers of the industry. Other information will come from interviews with local businesses, a tour of currently operating diesel maintenance programs, and research from suppliers of needed equipment.

CHAPTER II: LITERATURE REVIEW

The depth of related literature on starting a diesel maintenance program at a community college in north-central Arkansas is not extensive. Research was conducted using various electronic article databases, search engines, and book reviews with marginal success. There is valuable information in researching the existing area programs in diesel maintenance to determine factors such as core curriculum, tuition rates, related fields of study, and graduate employment rates. It was recommended by the Arkansas Department of Higher Education that research be conducted from the Arkansas Consumer Report System website (https://www.employment.arkansas.gov/ACRS/ASP/Public/Home.asp). This organization provides information related to the workforce in Arkansas for the purposes of research and continuing education in the state. It is possible to search all related programs for the specific program in Arkansas and neighboring states.

After conducting extensive research on this website, the following programs were identified as competitors of a potential diesel maintenance program at North Arkansas College. Table 2.1 is a summary of the different aspects of each related program identified as a potential competitor. The institutions with related programs were found in the northwest, north-central, west central and western regions of Arkansas. There were also programs examined in Missouri and Tennessee. These programs were included based on knowledge that the programs could be competitors for the North Arkansas market. It is important to know the competing programs, costs of the program, reputation of the program, etc, because that is what the potential customers will be comparing.

Table 2.1: Summary of Area Diesel Maintenance/Technology Programs

Name of School	Program Name	Training Level	Program Costs	Book Costs	Credit Hours
Pulaski Technical College	Diesel Mechanics	Technical Certificate	$3,429	$1,200	35
Ozarks Technical Community College	Diesel Technology	Associate Degree/Certificate	$10,902.50	$2,000	65
Northwest Technical Institute	Diesel & Truck Technology	Technical Certificate	$3,100	$1,500	72
University of Arkansas Community College-Hope	Diesel Technology	Technical Certificate	$3,050	$1,000	37
Arkansas State University-Searcy	Diesel Technology	Certificate of Proficiency	$1,194	$379	12
Nashville Auto-Diesel College	Diesel Mechanics/Technology	Associate Degree	$28,400	$987	84

Each of the programs has differences in their curriculum and the way the program is marketed. However, even with those differences, each of these programs provides useful information and should be considered when looking at the feasibility of a diesel maintenance program at North Arkansas College. In fact, these programs provide an excellent framework to build on when determining how to develop a program at North Arkansas College. Some of these programs have been in existence for several years and are excellent sources of information for design of a proposed diesel vehicle maintenance program at North Arkansas College.

Pulaski Technical College has a program that would be similar to the potential diesel vehicle maintenance program at North Arkansas College. The goal of the program, according to Pulaski Technical College is,

> "to provide a short concentration in the specific area of diesel mechanics. The program is intended for students to enter the workforce after completion of the program or for those who are currently working and want to upgrade their skills. Some of the hours earned in this program are acceptable toward associate degree programs." (http://www.pulaskitech.edu)

The areas that Pulaski Technical College teaches in their Diesel Mechanics program include tractor/trailer operation, diesel fundamentals, diesel engines, electrical, fuel injection, powertrains, brake systems, air conditioning systems, and workplace safety. This program is about 135 miles away from North Arkansas College. There is no information available on the number of students attending or graduating from the program.

The Diesel Technology program at Ozarks Technical Community College in Springfield, MO is a program that offers the option of either an Associate's degree or a certificate in Diesel Technology. According to Ozarks Technical Community College, "

> "The Diesel Technology program is an ASE (Automotive Service Excellence) master certified program that focuses on medium and heavy duty trucks. The classes are offered in the eight ASE areas: Diesel Engines, Drive Trains, Brakes, Steering and Suspension, Electrical and Electronics, Preventive Maintenance, Gas Engines, and Heating and Air Conditioning. The curriculum follows the recommended tasks that will give the students the skills to be an entry level mechanic." (http://www.otc.edu/transportationdiesel/7392.php)

According to Ozarks Technical Community College, the job placement rate for technicians graduating from the program is 100% and the intended length of program is 12 to 24 months.

Northwest Technical Institute (NTI) in Springdale, AR would be the major competitor of a potential diesel vehicle maintenance program at North Arkansas College. However, their program could be a great resource for information and a framework upon which to model a program after. Much time and effort was spent getting acquainted with the faculty and the details of the Diesel and Truck Technology program of NTI. The mission of this program is "to prepare students to be competent technicians in order to gain employment and advancement opportunities in the field of diesel and truck repair" (Chambers, 2011). In an interview conducted with Kent Chambers of Northwest Technical Institute, lead instructor for the Diesel and Truck Technology Program, it was found that their program handles 25 students per year and, according to Chambers, "we have a waiting

list of students waiting to get into the program twice that number." Kent also claims that they have no problem placing graduates. In fact, he says, "most students have at least an opportunity of a job before they graduate in their last semester and many already have committed to sign with a certain company before they graduate." "In the end, he stated, out job placement is absolutely 100%."

The faculty of the Diesel and Truck Technology Program at NTI emphasized that the purpose of their teaching and instruction during the program was to prepare the students to be employable. That is, they want them to have a working understanding of all the basic systems of the diesel vehicle before they leave, but they are not training their students on a specific technology in each area. Chambers stated, "Our job is to challenge the students to the point to where they are hirable and will function well with the knowledge that they have." This training also widens the opportunities that the graduates could enter instead of being specifically trained as a mechanic or as a sales coordinator. According to Chambers, the program has been in existence for 32 years. The program is 82 miles west of North Arkansas College.

The Diesel Technology program at the University of Arkansas Community College at Hope, AR is designed to "provide the student with the necessary entry-level skills and theory to enter either the medium/heavy duty truck or construction equipment service/repair fields" (http://www.uacch.edu/?page_id=1275). This program is 241 miles from North Arkansas College. There was not much information to be found about this program.

The Diesel Technology program at Arkansas State University-Searcy resembles that of the University of Arkansas Community College at Hope, AR in that not much

information was able to be obtained about the details to the program. The program is 140 miles from North Arkansas College.

The last program researched was that of the Nashville Auto-Diesel College. This program would be a strong competitor. This program has a strong reputation of providing excellent training, but with high tuition costs. This college specializes in the training on vehicles and has programs in the areas of automotive, collision repair, diesel, and high performance systems. The program has an intensive advertising program that reaches many students in high school who are trying to decide where they are going for an education. The program gives students with busy schedules the flexibility of both day and evening classes. The program is the most costly of all the programs considered to be competitors of a potential diesel vehicle maintenance program at North Arkansas College. The program promotes a quick education for a great paying salary by using the "NADC name to help you get your foot in the door with one of our many industry contacts" (http://nashvilleautodiesel.net/#). The college also states that it uses "comprehensive training programs that emphasize hands-on, interactive learning, so you get the actual "on-the-job" experience while still in school." As for the specifics of their program, that information was not available. It is known that there is a significant waiting list to get into the program and that their job placement of their graduates is about 94%. The college is located in Nashville, TN, about 480 miles from North Arkansas College.

CHAPTER III: THEORY

As one analyzes the market trends over the last 20 years of the diesel industry, there has been a significant increase in demand for diesel technicians. This assumption is mostly based on industry knowledge. In today's world, highly responsive and efficient logistics are a must. In several industries, there has been growth in the demand for diesel powered vehicles. In fact, the diesel vehicle industry is one of the most prevalent today. From logging to mining to agriculture, as well train locomotives for transportation, the diesel industry has a footprint in an estimated amount of 70% of the total industries in the United States market (http://www.bls.gov). The diesel technician occupation is one that touches many industries, and, thus provides the basis of starting a diesel vehicle maintenance program at North Arkansas College.

More importantly, however, are the predictions for the future of the diesel vehicle industry. According to the United States Bureau of Labor Statistics (2011), "opportunities should be very good for people who complete formal training in diesel mechanics; applicants without formal training will face competition for jobs". The bureau is predicting that the industry will not only maintain the current number of technicians, but, also add about 14,000 more jobs in each of the coming 10 years.

From North Arkansas College's position, it makes sense to possibly provide a diesel maintenance program because of the current market conditions. Many people are seeking to become marketable by obtaining technical skills. From the college's perspective, if they can identify sustainable programs that add value to the college and that help educate and provide the community resources that enable it to succeed, then

they must do so. This is the environment that gives cause for considering a diesel maintenance program.

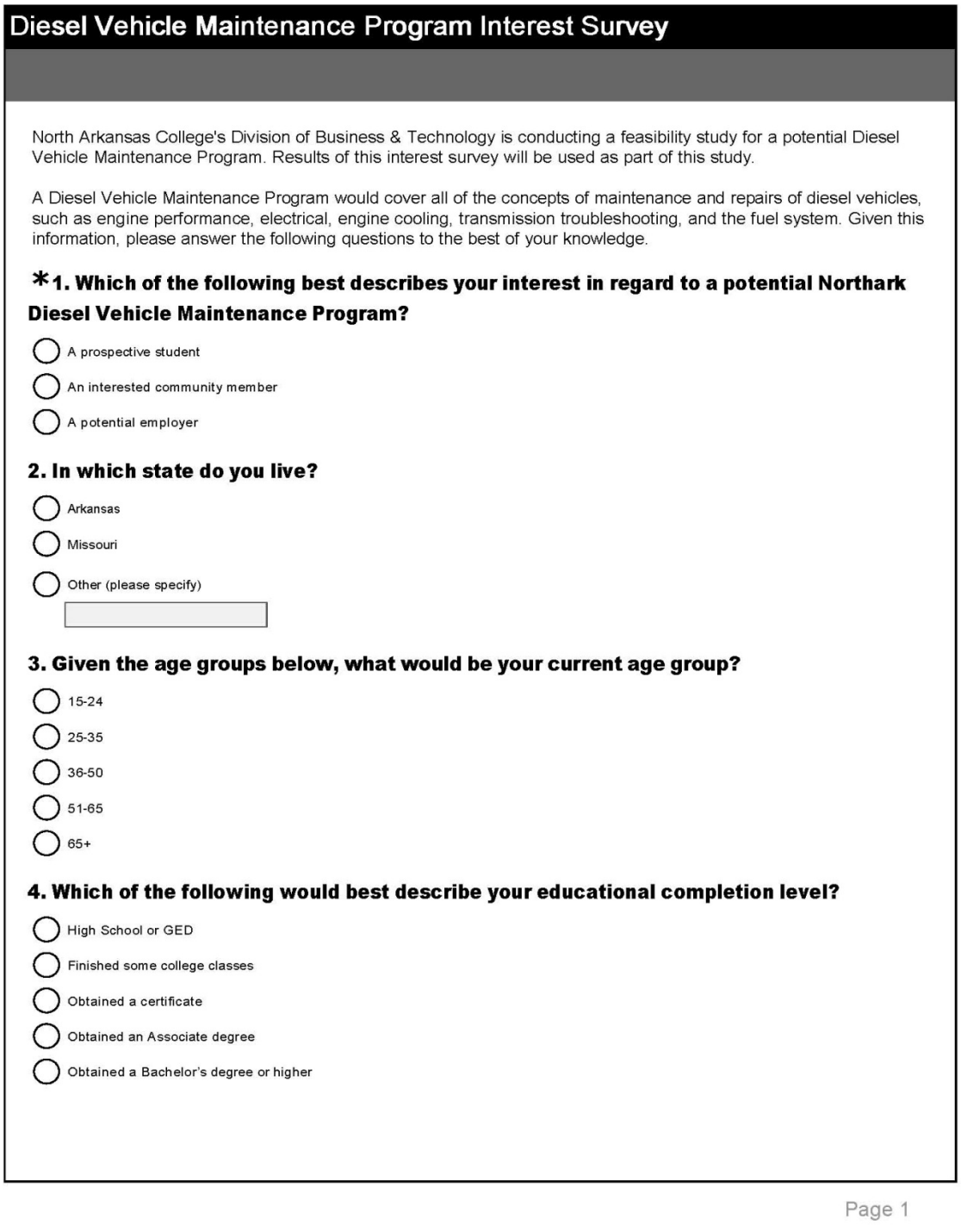
In the past, many have asked the Business and Technology Department of North Arkansas College if it would consider a diesel vehicle maintenance program. Through this suggestion and by analyzing the diesel mechanics industry, it has been concluded that it would be worthwhile to determine if a diesel mechanics program would be of benefit to the Business and Technology Department at North Arkansas College. To effectively determine if a diesel maintenance program is feasible, the college must appropriately determine the interest from the community and the surrounding area, determine what are the college's upfront and recurring costs compared to the revenues the program will bring in, and determine if a program such as this would fit into the market of North-central Arkansas.

CHAPTER IV: METHODS

To gauge the feasibility of a diesel maintenance program, there are three tasks that must be accomplished. Those tasks include developing an interest survey for multiple community stakeholders, gathering potential costs and revenues to develop a financial plan, and create a potential market position map.

The first step in the process was to develop an interest survey. The survey was an important part of the project and was aimed to gain measureable data that could be used in economic models. It was designed to provide an assessment of interest in a diesel vehicle maintenance program. The survey was targeted to stakeholders, including interested community members, potential students, and potential employers in the area of North-central Arkansas and South-central Missouri. The reason for this area of concentration is that North Arkansas College will most likely be able to draw students from about a 100 mile radius. The actual survey is provided in the following 9 pages.

Figure 4.1: Copy of Survey Used To Collect Data on Interest Level in Community



Diesel Vehicle Maintenance Program Interest Survey

North Arkansas College's Division of Business & Technology is conducting a feasibility study for a potential Diesel Vehicle Maintenance Program. Results of this interest survey will be used as part of this study.

A Diesel Vehicle Maintenance Program would cover all of the concepts of maintenance and repairs of diesel vehicles, such as engine performance, electrical, engine cooling, transmission troubleshooting, and the fuel system. Given this information, please answer the following questions to the best of your knowledge.

***1. Which of the following best describes your interest in regard to a potential Northark Diesel Vehicle Maintenance Program?**

- ◯ A prospective student
- ◯ An interested community member
- ◯ A potential employer

2. In which state do you live?

- ◯ Arkansas
- ◯ Missouri
- ◯ Other (please specify)

3. Given the age groups below, what would be your current age group?

- ◯ 15-24
- ◯ 25-35
- ◯ 36-50
- ◯ 51-65
- ◯ 65+

4. Which of the following would best describe your educational completion level?

- ◯ High School or GED
- ◯ Finished some college classes
- ◯ Obtained a certificate
- ◯ Obtained an Associate degree
- ◯ Obtained a Bachelor's degree or higher

Page 1

Diesel Vehicle Maintenance Program Interest Survey

5. College Attendance

	Yes	No
Are you currently enrolled in college?	◯	◯
Do you plan to attend college in the future?	◯	◯

Diesel Vehicle Maintenance Program Interest Survey

Prospective Student

6. How many hours do you work per week?

- ◯ 0
- ◯ 1-15
- ◯ 16-35
- ◯ 36+

7. The United States Bureau of Labor Statistics states that the national average hourly wage for bus and truck mechanics and diesel engine specialists is $20.31, with a mean average annual salary of $42,250.

Bus and truck mechanics and diesel engine specialists include diagnostics, adjustments, or overhaul of buses and trucks, maintainance and repair of any type of diesel engines. Includes mechanics working primarily with automotive or marine diesel engines.

Given this data, do you believe that this pay rate is a good return of the time and money needed to pursue a degree in diesel mechanics?

- ◯ Yes
- ◯ No
- ◯ Not sure

Diesel Vehicle Maintenance Program Interest Survey

8. Please indicate your level of agreement with each of the statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I am interested in a career in the diesel maintenance field.	◯	◯	◯	◯	◯
The amount of time devoted to "hands-on" training in a program is an important factor to me.	◯	◯	◯	◯	◯
A certificate/degree in Diesel Maintenance from Northark would enable me to find a job.	◯	◯	◯	◯	◯
As a result of completing a Diesel Vehicle Maintenance Program at North Arkansas College, a wider array of career opportunities will be available to me.	◯	◯	◯	◯	◯
A program length of three semesters would be an acceptable length of time for me to commit towards obtaining my certificate/degree.	◯	◯	◯	◯	◯
If the Diesel Vehicle Maintenance Program at Northark required some general education courses, I would be willing to take those in order to complete the degree requirements.	◯	◯	◯	◯	◯
Overall, if North Arkansas College had a Diesel Vehicle Maintenance Program, I would seriously consider enrolling into the program.	◯	◯	◯	◯	◯
Considering all of the available diesel maintenance programs that I know of, I would prefer to enroll into a program at North Arkansas College over the others.	◯	◯	◯	◯	◯
The cost of tuition would be an important factor in my decision to choose North Arkansas College.	◯	◯	◯	◯	◯

9. Would you prefer to obtain a certificate or associate degree in Diesel Vehicle Maintenance?

◯ Certificate in Diesel Vehicle Maintenance

◯ Associate Degree in Diesel Vehicle Maintenance

Diesel Vehicle Maintenance Program Interest Survey

Community Member

10. The United States Bureau of Labor Statistics states that the national average hourly wage for bus and truck mechanics and diesel engine specialists is $20.31, with a mean average annual salary of $42,250.

Bus and truck mechanics and diesel engine specialists include diagnostics, adjustments, or overhaul of buses and trucks, maintainance and repair of any type of diesel engines. Includes mechanics working primarily with automotive or marine diesel engines.

Given this data, please indicate your level of agreement with each of the statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I consider this to be a good competitive salary in our area.	◯	◯	◯	◯	◯
Given this salary, I would recommend this field to a potentially interested student.	◯	◯	◯	◯	◯

11. Please indicate your level of agreement with each of the statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
North Arkansas College is beneficial to its students and the community as a whole.	◯	◯	◯	◯	◯
I am familiar with the current programs offered by North Arkansas College.	◯	◯	◯	◯	◯
I believe there will be be good employment opportunities for diesel maintenance technicians in the near future.	◯	◯	◯	◯	◯
A Diesel Vehicle Maintenance Program at North Arkansas College would add value to the college and the community.	◯	◯	◯	◯	◯
If North Arkansas College had a Diesel Mechanics Program, I would personally recommend the program to potential students.	◯	◯	◯	◯	◯

Diesel Vehicle Maintenance Program Interest Survey

Potential Employer

12. In which state are you employed?

- ◯ Arkansas
- ◯ Missouri
- ◯ Other (please specify)

13. Which of the following best describes the size of your business?

- ◯ 1-4 Employees
- ◯ 5-10 Employees
- ◯ 11-20 Employees
- ◯ 20+ Employees

14. Please indicate your level of agreement with each of the statements.

	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I believe that there is a good outlook for future opportunities in the field of diesel maintenance.	◯	◯	◯	◯	◯
Adding a Diesel Vehicle Maintenance Program to North Arkansas College would increase the overall value to the community.	◯	◯	◯	◯	◯
I foresee opportunities at my business for a diesel maintenance technician.	◯	◯	◯	◯	◯
An employee with a certificate or degree in diesel maintenance would add value to my business.	◯	◯	◯	◯	◯
I would hire a graduate of a Diesel Vehicle Maintenance Program from North Arkansas College.	◯	◯	◯	◯	◯

Diesel Vehicle Maintenance Program Interest Survey

15. The United States Bureau of Labor Statistics states that the national average hourly wage for bus and truck mechanics and diesel engine specialists is $20.31, with a mean average annual salary of $42,250.

Bus and truck mechanics and diesel engine specialists include diagnostics, adjustments, or overhaul of buses and trucks, maintenance and repair of any type of diesel engines. Includes mechanics working primarily with automotive or marine diesel engines.

Given this data, would you be willing to pay this amount to a graduate of a diesel maintainance program?

- ◯ Yes
- ◯ No
- ◯ Maybe

Other (please specify)

16. If you had an employee wanting to enroll at a diesel vehicle maintenance program, would you be willing to pay for the tuition?

- ◯ Yes
- ◯ Some of it
- ◯ No

Other (please specify)

Diesel Vehicle Maintenance Program Interest Survey

Final Page

17. Research has shown that the tuition costs of North Arkansas College to be significantly lower than some national diesel vehicle maintenance programs. Would this fact cause you to prefer a Diesel Vehicle Maintenance Program at Northark?

- ◯ Yes
- ◯ No
- ◯ Maybe

18. What would you consider to be the most important aspect of a potential Diesel Vehicle Maintenance Program at Northark?

- ◯ Affordability
- ◯ Amount of time spent in hands-on-training vs. lecture
- ◯ Accessability/Proximity to College
- ◯ Reputation of the quality of graduates from the program

19. How did you here about this survey?

- ☐ E-mail
- ☐ Website
- ☐ Newspaper
- ☐ Word of Mouth

Other (please specify)

20. Please share any additional comments below.

Page 8

Diesel Vehicle Maintenance Program Interest Survey

Thank you for taking this survey. If you have additional comments or questions, please contact Ed Proctor, Dean of Business & Technology.

870-391-3228
eproctor@northark.edu

4.1 General Discussion of the Interest Survey

Since the survey is an important part of the feasibility study, significant time and effort was spent on survey development. Knowledge of the area and industry was used to determine the language of the questions, delivery method, and length. Advice and direction from the Dean of the Business and Technology at North Arkansas College, Mr. Edward Proctor was solicited to ensure that publicity for the survey was handled properly. Several meetings were held with the Director of Institutional Research, Mrs. Katherine Vaughn, to ensure that the survey was designed so that the results could be used to determine the information that would help the college make a decision on whether this program is feasible.

Faculty of diesel programs in northwest Arkansas were also consulted in the process. The Northwest Technical Institute helped with the entire process, not just the survey construction. During tours and meetings of similar area diesel programs, the primary goal was used to examine potentially important factors. In addition, the respondents to which the survey was sent were considered when creating questions. The survey was opened to the public in an online format on December 5, 2011 and was closed on February 10th, 2012. The survey was advertised through a variety of means including distribution of official letters throughout the community, emails to various contacts already established with the college, word of mouth, on the North Arkansas College website, and a special announcement in the local newspaper, the Harrison Daily Times. Through each of these methods, a direct link to the survey was provided so that a respondent could easily access to the survey.

4.2 Discussion of the Survey Components

As part of the effort to design the survey so that the results could be used effectively for assessing program feasibility, the survey sample was given to three audiences. These groups were the potential students of the program, the potential employers of those students, and the community members that would potentially support this program by recommending the program and as taxpayers. Each group completed the same initial page and once their interest was identified, they answered a specific part of the survey.

The first two pages of the survey introduced the goal of the survey in a short, concise manner that gave the respondent enough information without unintentionally biasing survey results. General background information about each respondent was collected that may be important to the analysis. After this information was collected, the respondent was taken to one of the three possible parts of the survey that reflected their initial responses. These three parts gathered from the three audiences are analyzed below.

The first section of the interest survey was the prospective student section. This section started on page three of the survey and ended on page four. The goal of this section was to gain information to determine if there is interest from potential students in the vicinity of the college for a diesel vehicle maintenance program, if the program would benefit them for employment opportunities, and if the program area being considered is relevant to the student's educational desires. More specifically, the goal of this section was to determine if the prospective students would with all factors being considered, enroll into a diesel vehicle maintenance program at North Arkansas College, if offered.

The second section of the interest survey was the community member section. This section was on page five of the survey. The goal of this section was to gain an understanding of community interest in a potential diesel vehicle maintenance program.

The factors considered included the community's perception of the diesel mechanics occupation, opportunities available to potential graduates, and North Arkansas College's ability to sustain a program of this type. In the end, an understanding of whether the community would support a potential diesel vehicle maintenance program in all aspects was desired.

The third section of the interest survey was designated for the prospective employers. This section started on page seven and ended on page eight. The goal of this section was to determine if potential employers perceived a need for diesel maintenance technicians in the labor market, if the employers would hire graduates of a potential diesel vehicle maintenance program at North Arkansas College, and what they thought would be the most important aspect of the program. Overall, the goal was to gauge employers response to a diesel vehicle maintenance program and if the students would be able to find jobs in the long term.

The final section of the interest survey was intended for all three audiences. This section of the survey was on page 8 and collected additional information about what the respondents consider to be the most important aspect of North Arkansas College, and a chance for the respondents to provide open-ended comments. The goal of this section was to quantify the ability of North Arkansas College to separate itself from other diesel maintenance programs based on tuition costs and to capture all other opinions of the survey group that had not been previously revealed.

4.3 Discussion of the Positioning of the Potential Diesel Vehicle Maintenance Program in the Area's Marketplace

The second part of the feasibility study was to develop a market positioning map for the potential diesel vehicle maintenance program. The positioning map takes into

account the factors that would affect how the program would compare to other programs that are considered competitors. These factors include tuition costs, type of degree/certificate, curriculum content, teaching methods, length of program, building layout and floor plan, as well as, the number of faculty to teach program.

4.4 Discussion of Operating Costs and Summary of Capital Costs

The next part of the feasibility study was to develop a general financial plan of the proposed diesel vehicle maintenance program. Information on the potential capital costs and the program's operating budget were obtained. These costs provide an understanding of the upfront costs to start the program and the financial health of the program after the program would be established. There might be interest in the program, but if the program is not financially sustainable for North Arkansas College, then it does not make sense to start the program. The capital costs and the operating budget are split due to "sunk costs." It is assumed that after the program is started, many of the upfront capital costs of the program will no longer be important as they are sunk costs, therefore making the operating budget significant for program viability.

4.5 Discussion of the how a Potential Diesel Vehicle Maintenance Program would fit into the Overall Mission of the College

The last part of the feasibility study was to look at how the program would fit with other programs at North Arkansas College. The program may seem like a good idea by itself, but if it does not match up with the mission and overall goals of the college, it is of less value. This part of the study looked at where the building of the diesel vehicle maintenance program could be built, how the program would affect other programs, and if the overall outcomes of the program are of benefit to the college.

CHAPTER V: RESULTS AND DISCUSSION

Analysis of the interest survey is discussed first. The responses of the individuals from all three audiences are analyzed to quantify the level of interest from the community. Microsoft Excel is used for analysis purposes; that is summarizing individual questions, and putting responses into graphical from.

The interest survey received 168 responses. Of those responses, 83 were from community members, 68 were from prospective students, and 17 were from prospective employers. The category determination came from question 1. Also, from question 2, it was determined that all respondents were from the state of Arkansas, except for 4 respondents that were from Missouri. Of the four respondents from Missouri, three were potential employers and one was a community member.

Question 3 on the survey collected information about the age range of the respondent so that conclusions on the type of respondents might be made. Table 5.1 depicts the age ranges of all the respondents from the interest survey, by category.

Table 5.1: Summary of All Respondent's To Interest Survey Age Group

Age Range (Yrs)	Potential Employers	Potential Students	Community Members
15-24	2	57	20
25-35	3	7	24
36-50	6	3	21
51-65	6	0	15
65+	0	1	3

The data in Table 5.1 show an older median age among potential employers, a large percentage of younger potential students, and an even distribution of the ages among the community members. The age distribution of the students is surprising in that most of the programs interviewed reported that the major portion of the students are "middle-aged"

students returning to school to increase their skill set to become more competitive in the labor market. While, it is important to recognize a younger age distribution among the prospective students, it is wise to remember that this is still a relatively small sample size. In addition, the younger age distribution might have occurred due to the use of a web-based survey.

The survey collected data from the respondents on their respective educational level at the time of the survey. Table 5.2 summarizes the educational level of the sample group that was collected with question 4.

Table 5.2: Summary of Respondent Educational Level

Respondents Overall Highest Completed Educational Level	
High School or GED	65
Finished some college classes	28
Obtained a certificate	8
Obtained an Associate degree	22
Obtained a Bachelor's degree or higher	45

The data in Table 5.2 is typical of the area except for the number of respondents that have obtained a Bachelor's degree or higher (45). This is a fairly large number considering the area does not have a large percentage of citizens that have a Bachelor's degree, according the United States Bureau of Labor Statistics. This should be kept in mind as one analyzes the following data.

Tables 5.3 and 5.4 depict the college attendance information collected from the respondents during the survey from question 5. Table 5.3 depicts the college attendance at the time of the survey.

Table 5.3: Summary of Respondent's Current College Attendance Status

	Yes	No
Community Members	15	66
Potential Employers	1	8
Potential Students	22	43

Table 5.4 depicts the response for all categories from the survey of the respondents that were planning on attending college in the future. This question was asked in a general sense and not in reference to the potential diesel vehicle maintenance program.

Table 5.4: Summary of Respondent's Future College Plans

	Yes	No
Community Members	44	34
Potential Employers	15	8
Potential Students	61	4

In the data below, the analysis summarizes the response by the community members, followed by the prospective students and ending with the prospective employers. In each question, an analysis of the response received for the stated question is provided through a graph and/or written analysis.

In the discussion below, an average is calculated of the responses to get a measure of the degree of agreement among the respondents to the indicated statement. The metrics used for this calculation are in Table 5.5.

Table 5.5: Metrics Used for Calculation of Calculated Average

Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

5.1 Analysis of the Response from the Prospective Students in the Interest Survey

Figure 5.1 depicts the response of the prospective students to question 6, "How many hours do you work per week?" These data provide insight to how many of the prospective students are already in the workforce and might be looking for continuing education opportunities from the program. These data reflect the previously reported data that the sample of prospective students is of a younger age. Most respondents worked part-time.

Figure 5.1: Survey Response by Prospective Students on Number of Hours Worked Per Week

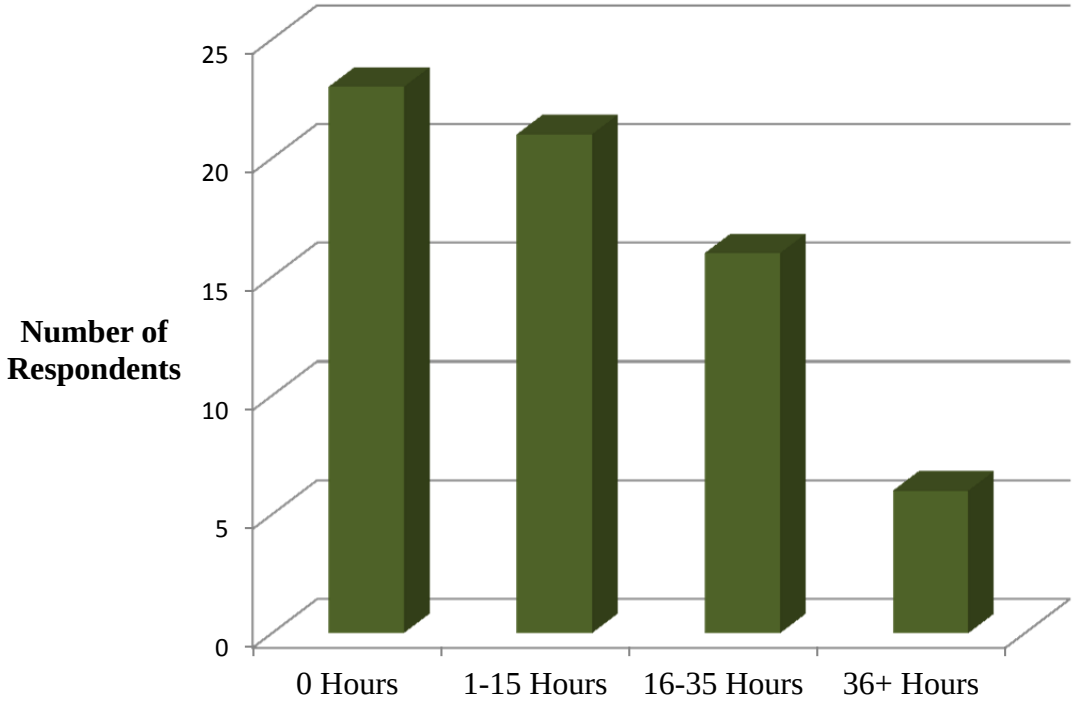


Table 5.6 represents the response of the prospective students for question 7 of the interest survey. This question gave the respondent the average annual salary of $42,250 and a small description of the work that the typical diesel technician would do. The question then asked if the respondent would consider the given pay rate to be a good return

of the time and money needed to pursue a degree in diesel mechanics. The data received reveal that most students consider the average annual salary to be either acceptable or they are not sure at this point in their life.

Table 5.6: Response by the Prospective Student about Acceptability of National Average Salary for Bus and Truck Mechanics and Diesel Engine Specialists

Possible Response	Number of Responses
Yes	33
No	7
Not Sure	26

Figure 5.2 depicts the number of responses for the statement, "I am interested in a career in diesel maintenance field," which is from question 8 of the interest survey. The analysis reveals that the prospective students sampled have a diverse range of interests in regards to technical skills. The "Strongly Agree" column has the most responses but, there is a range of responses. This is reflected in the average of 3.49 for the responses. It is important to keep in mind that the interest survey was available for all students to take, not just a group interested in diesel mechanics.

Figure 5.2: Survey Response by Prospective Students on Interest in the Diesel Vehicle Maintenance Field

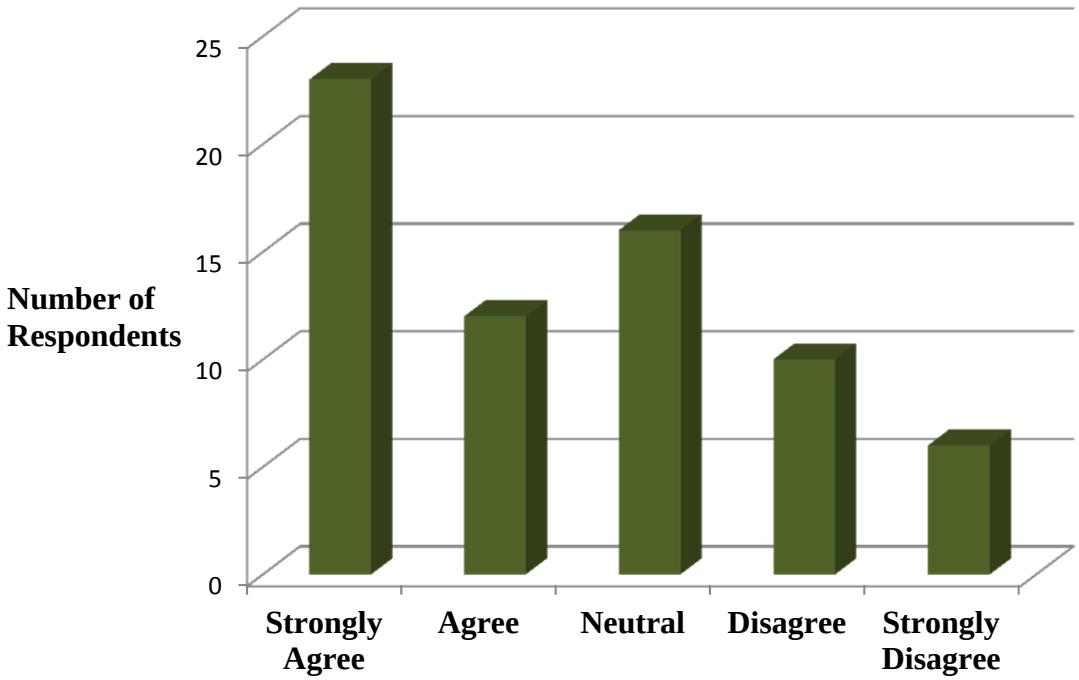


Figure 5.3 depicts the number of responses by the prospective students for the question, "The amount of time devoted to "hands-on" training in a program is an important factor to me." As represented by Figure 5.3, the sample group would prefer to have training in this field through the hands-on approach. The average of the responses for this question is 4.17.

Figure 5.3: Survey Response by Prospective Students on Need of Hands-on Training in Potential Diesel Vehicle Maintenance Program

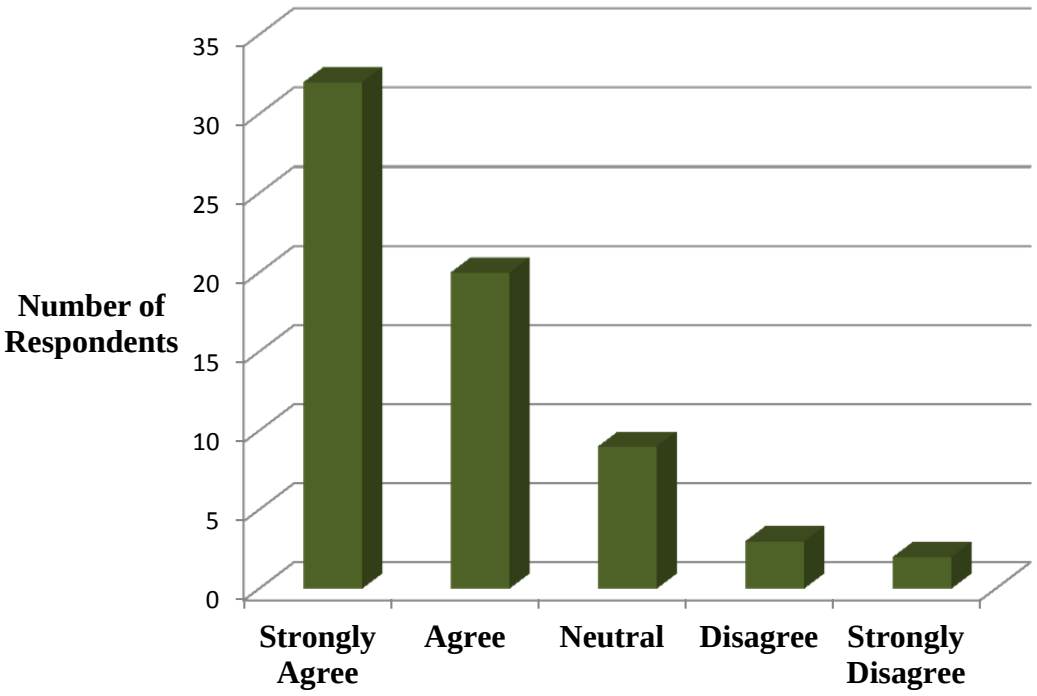


Figure 5.4 depicts the response by the prospective students to the statement from question 8, "a certificate/degree in Diesel Maintenance from Northark would enable me to find a job." The average of the responses is 3.74. As indicated by Figure 5.4 and this average, the students are not completely sure that a certificate/degree in diesel vehicle maintenance would help them to get a job but they are optimistic as there are just 5 responses out of 68 that are "disagree" or "strongly disagree."

Figure 5.4: Survey Response by Prospective Students on a Diesel Vehicle Maintenance Certificate Enabling Them to Find a Job

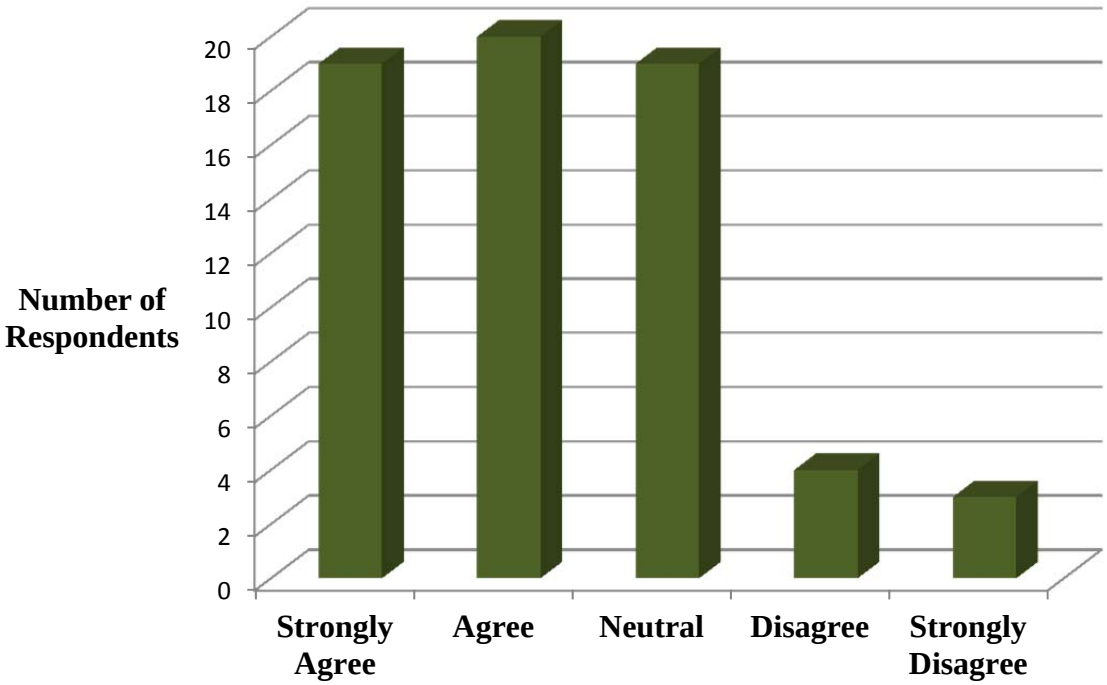


Figure 5.5 depicts the number of responses for each of the possible choices for the statement "as a result of completing a Diesel Vehicle Maintenance Program at North Arkansas College, a wider array of career opportunities will be available to me." The analysis reveals that the prospective students sampled continue to have a relatively positive agreement with the statement presented. The average of these responses was 3.85.

Figure 5.5: Survey Response by Prospective Students on Perceived Gain of Career Opportunities after Completing Certificate at North Arkansas College

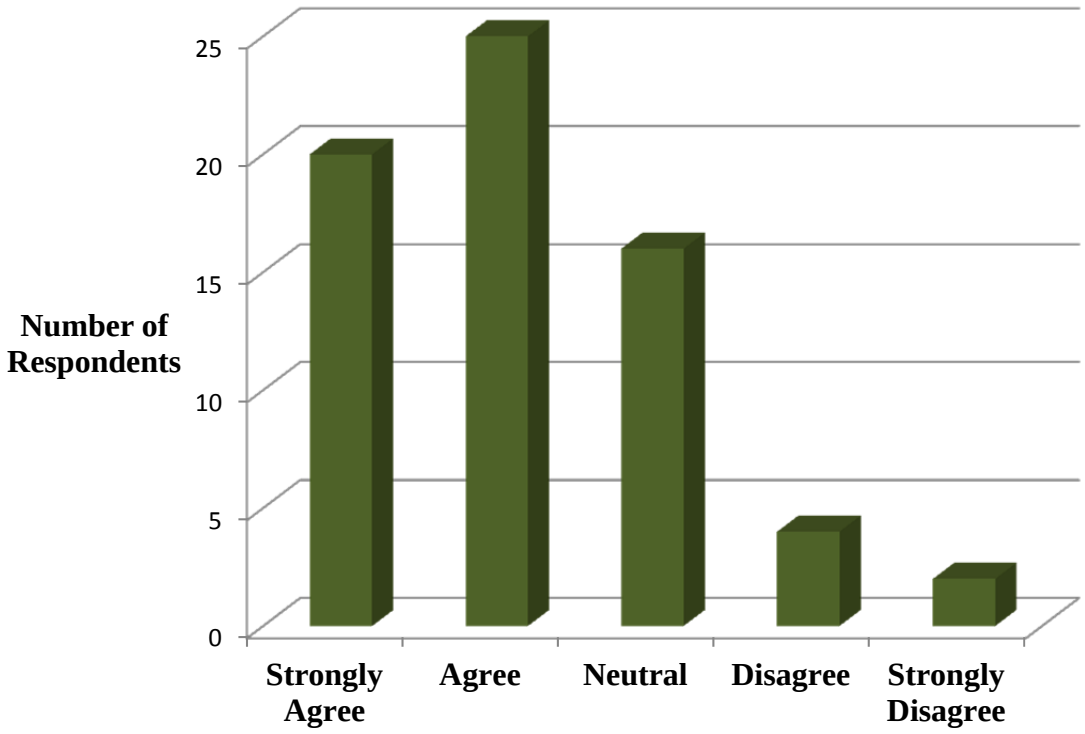


Figure 5.6 depicts the response by the prospective students to the statement from question 8, "a program length of three semesters would be an acceptable length of time for me to commit towards obtaining my certificate/degree." The average of the responses for this statement was 3.70, which indicates that there was a positive agreement level of the prospective students with that statement. However, figure 5.6 further strengthens that assessment, especially when one looks at the number of "agree" responses of 30, which is 44% of the total prospective student respondents.

Figure 5.6: Survey Response by Prospective Students on Three Semesters Being an Acceptable Length for the Diesel Vehicle Maintenance Program

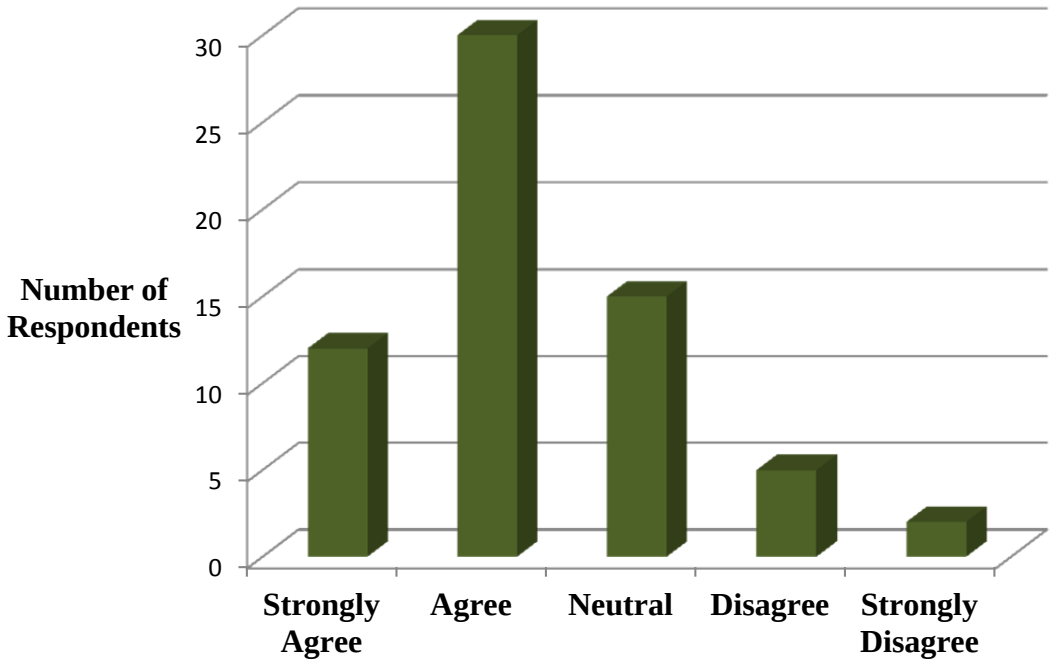


Figure 5.7 depicts the response by the prospective students to the statement from question 8, "if the Diesel Vehicle Maintenance Program at Northark required some general education courses, I would be willing to take those in order to complete the degree requirements." The response to this statement again has a positive agreement level from the prospective students sampled. The average of the responses to this statement was 3.62.

Figure 5.7: Survey Response by Prospective Students on Willingness to Take Some General Education Courses

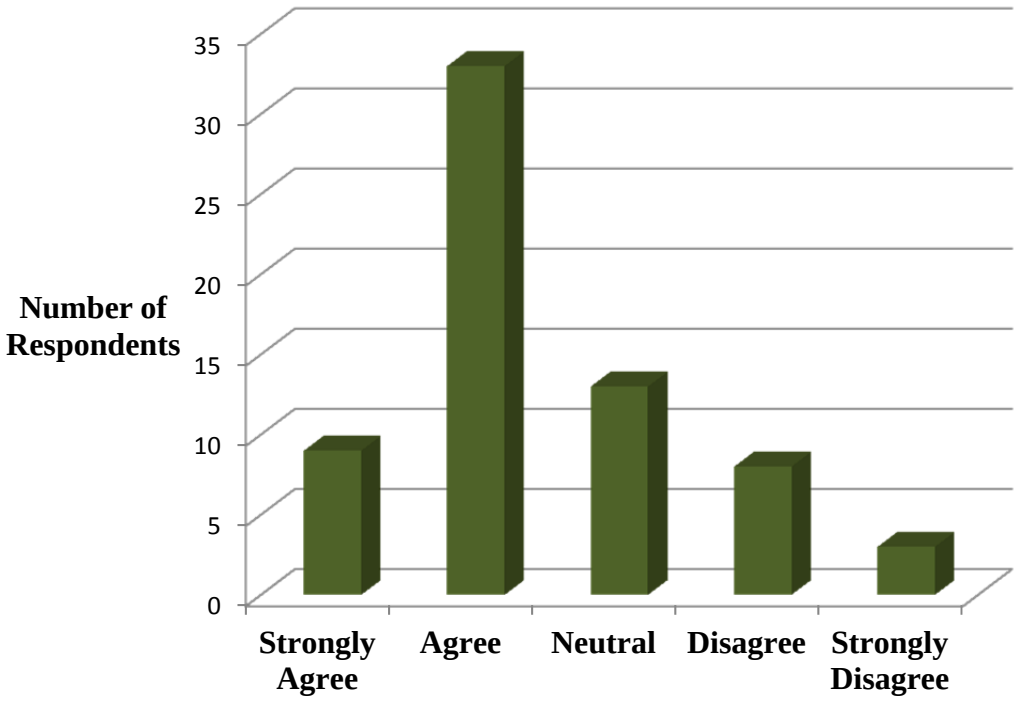


Figure 5.8 depicts the number of responses for the statement "overall, if North Arkansas College had a Diesel Vehicle Maintenance Program, I would seriously consider enrolling into the program." The analysis reveals that the prospective students continue to have a relatively positive agreement with the statement presented, as represented by Figure 5.10 below. This statement generated an average response of 3.61.

Figure 5.8: Survey Response by Prospective Students on Seriously Considering to Enroll Into a Diesel Vehicle Maintenance Program at North Arkansas College

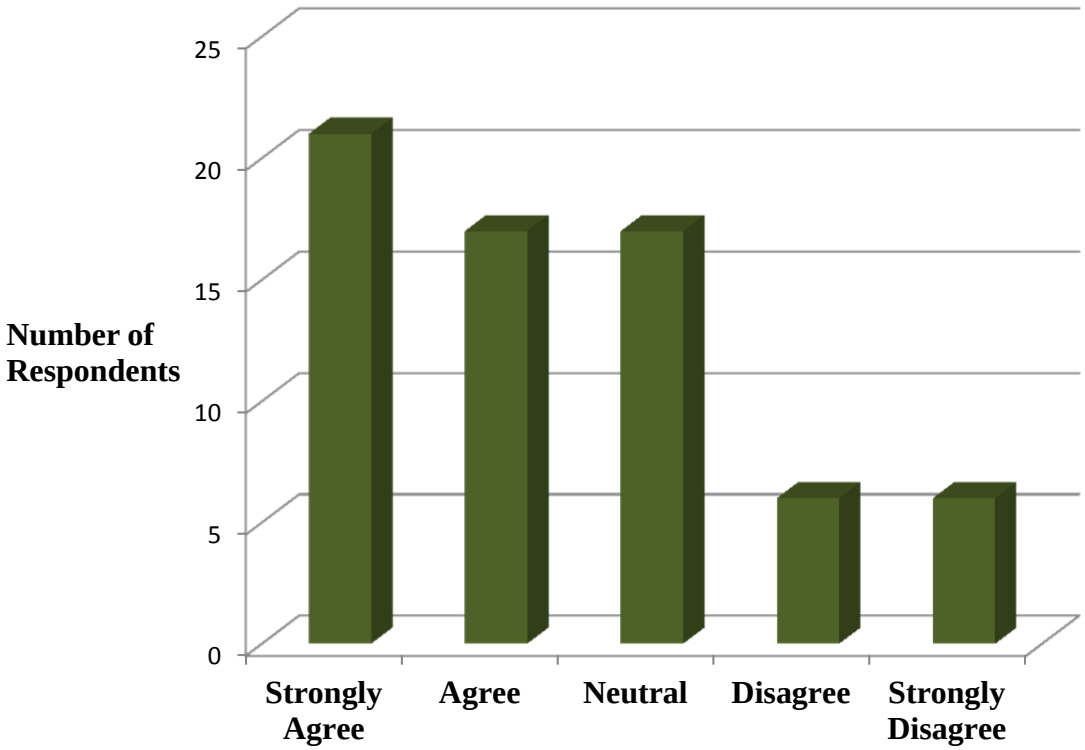


Figure 5.9 depicts the number of responses for the statement "considering all of the available diesel maintenance programs that I know of, I would prefer to enroll into a program at North Arkansas College over the others." The analysis reveals that the prospective students sampled have a more distributed response compared to the other statements. The average of all the responses is 3.46, which indicates this response slightly above neutral.

Figure 5.9: Survey Response by Prospective Students on Possible Preference of Program at North Arkansas College over Competitors

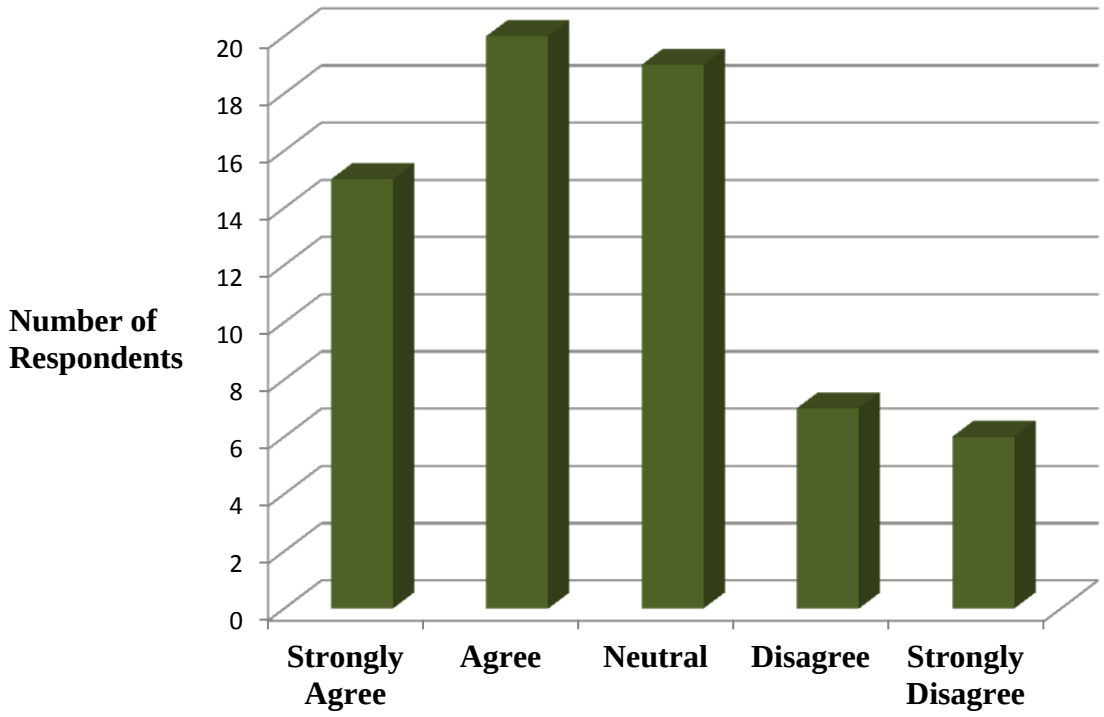
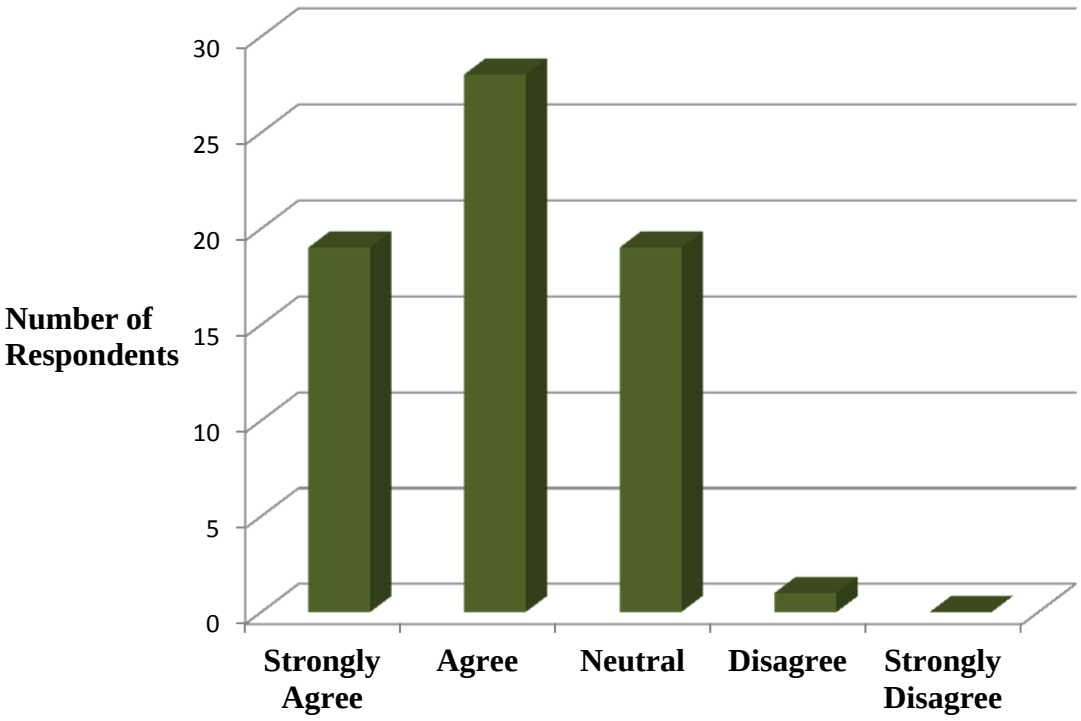


Figure 5.10 depicts the number of responses for the statement "the cost of tuition would be an important factor in my decision to choose North Arkansas College." The analysis reveals that the prospective students have a positive agreement level with the statement presented. The calculated average of this group is 3.97.

Figure 5.10: Survey Response by Prospective Students on How Much Tuition Costs Factors in the Decision of Program Selection



The data from question 9 of the interest survey were surprising. Thirty-eight prospective students responded that they would prefer to obtain an Associate's degree in Diesel Vehicle Maintenance compared to 23 that responded they would prefer to obtain a certificate in Diesel Vehicle Maintenance. This reveals that the students sampled would like to obtain the higher degree over a certificate. Seven prospective students did not respond to the question.

Finally, question 20 of the interest survey gave the respondents a chance to provide any other comments that they might have that have not been expressed previously in the survey. Following is a summary of the responses received from all prospective students on question 20:

- *"I strongly encourage a diesel class to open. I would be your first student."*

- *"This is a good program for both, the North Arkansas College and for the students that are interested in it. But I am not very interested in this program."*
- *"If I were to attend the college course I would have to be able to afford the course, and, I would rather have more hands on training and less lectures."*
- *"Being able to afford the cost of going and enrolling to this program is a big concern, but also that hands-on work to learn correctly how to do things without messing up."*
- *"I'm not interested in diesel vehicle maintenance."*
- *"I would love to have a diesel degree."*
- *"I feel that it would be a benefit to have the diesel maintenance program for the fact that it would not limit the opportunities."*

5.2 Overall Assessment of the Survey Response of Prospective Students

This group of respondents from the interest survey provides important data that delivers important information. Overall, there was a positive response to all of the statements that were presented to the respondents. This reveals that a diesel vehicle maintenance program at North Arkansas College would probably have significant interest from prospective students.

5.3 Analysis of the Response of the Community Members from the Interest Survey

The first question in the section of community members was question 10, which gave the respondent the average annual salary of $42,250 for diesel maintenance technicians and a small description of the work that the typical diesel technician would do. Based on that knowledge, the respondent picked their agreement level with the following two statements. Figure 5.11 reveals the response of the community members to the statement, "I consider this to be a good competitive salary in our area." As depicted, most community members do have a strong positive agreement level with this statement. The average of the responses to this statement was 4.07.

Figure 5.11: Survey Response by Community Members on Competitiveness of Diesel Technician Salary

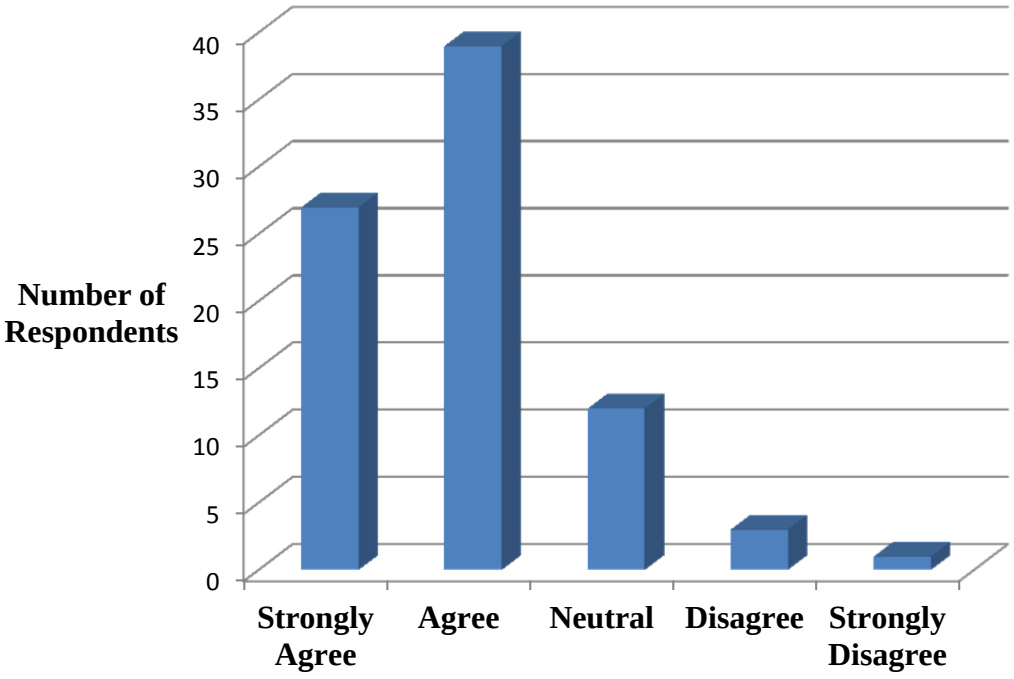


Figure 5.12 depicts the response by the community members to the statement, "given this salary, I would recommend this field to a potentially interested student." The average of the responses to this statement is 4.13, clearly revealing a strong agreement level

of the community members that they would recommend potential students in our area to a potential diesel vehicle maintenance program.

Figure 5.12: Survey Response by Community Members on Recommendation Based on Average Salary

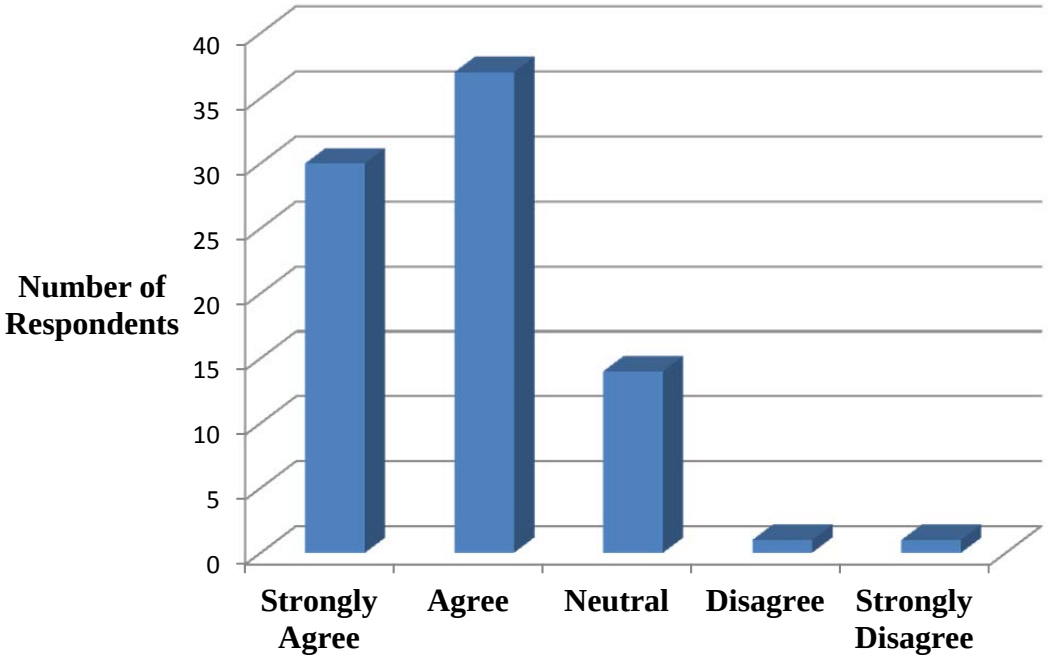


Figure 5.13 reveals the response by the community members to the statement, "North Arkansas College is beneficial to its students and the community as a whole." This statement was located under question 11 of the interest survey. The average of all of the responses with this statement was 4.45. Ninety four percent of the community member respondents reported either an "agree" or "strongly agree" response to the statement of North Arkansas College's benefit to community.

Figure 5.13: Survey Response by Community Members on Benefit of North Arkansas College to Community

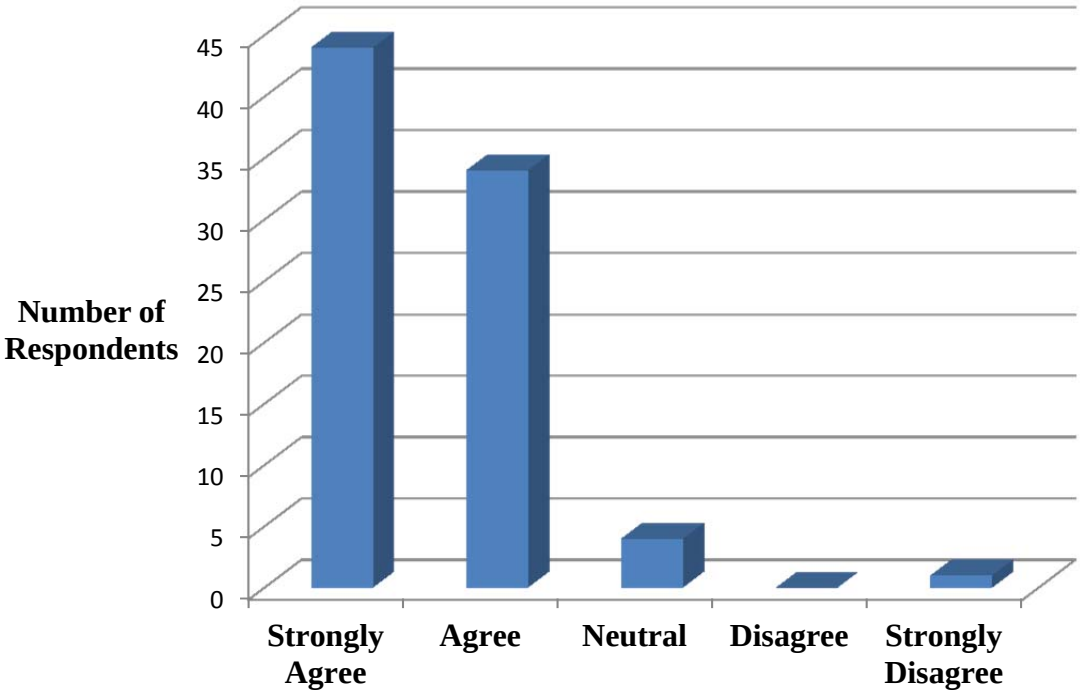


Figure 5.14 shows the response by the community members to the statement, "I am familiar with the current programs offered by North Arkansas College." The average of the responses of the statement was 3.90. These data reveal that the community members are familiar with the college and the type programs offered to students. This reveals the working knowledge the respondents are using to answer the statements presented in the survey.

Figure 5.14: Survey Response by Community Members on Familiarity of Current Programs at North Arkansas College

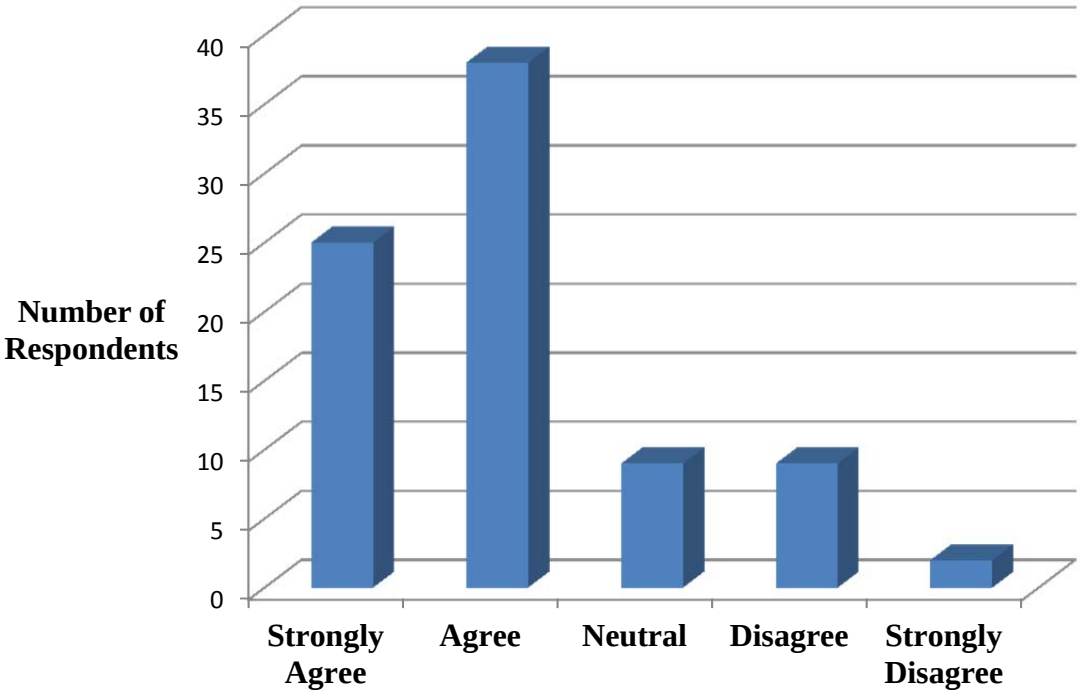


Figure 5.15 depicts the response by the community members for the statement from question 11 of the survey, "I believe there will be good employment opportunities for diesel maintenance technicians in the near future." The average of these responses to the statement is 4.17. This average and Figure 5.15 further indicate that the community members may, if given opportunity, be willing to recommend an interested student to the area of diesel vehicle maintenance.

Figure 5.15: Survey Response by Community Members on Future Employment Opportunities for Diesel Technicians

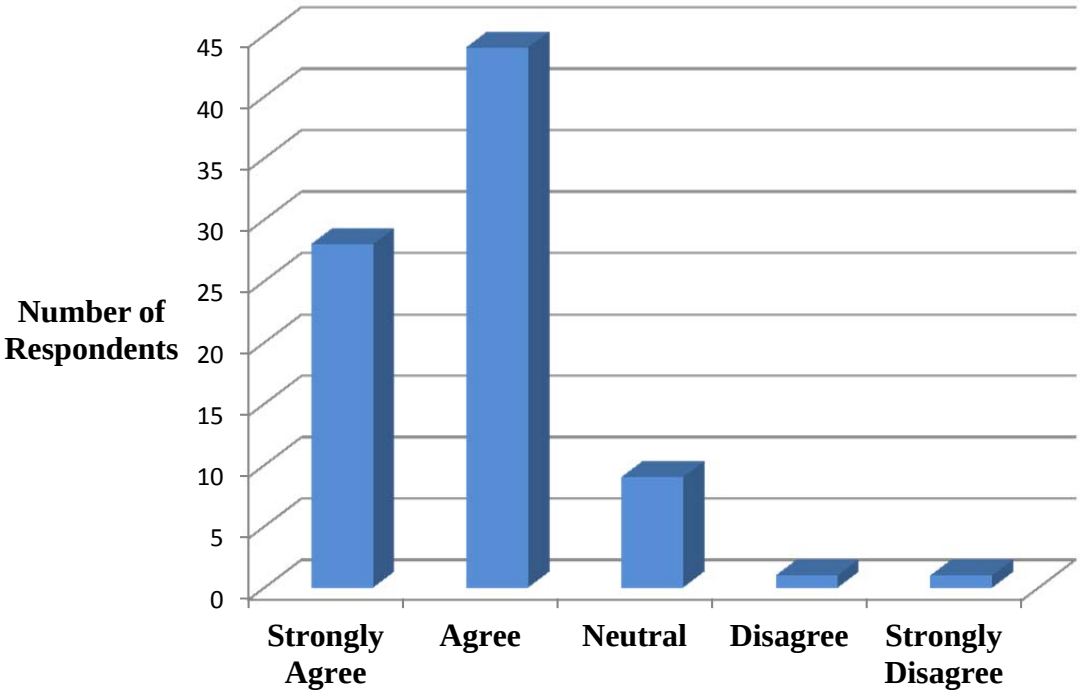


Figure 5.16 depicts the response of the community members to the statement, "a Diesel Vehicle Maintenance Program at North Arkansas College would add value to the college and the community." The data illustrate the value the community members have for the proposed program. The average of all the responses to the statement was 4.36.

Figure 5.16 Community Members That Felt a Diesel Maintenance Program at North Arkansas College Would Add Value to the College and the Community

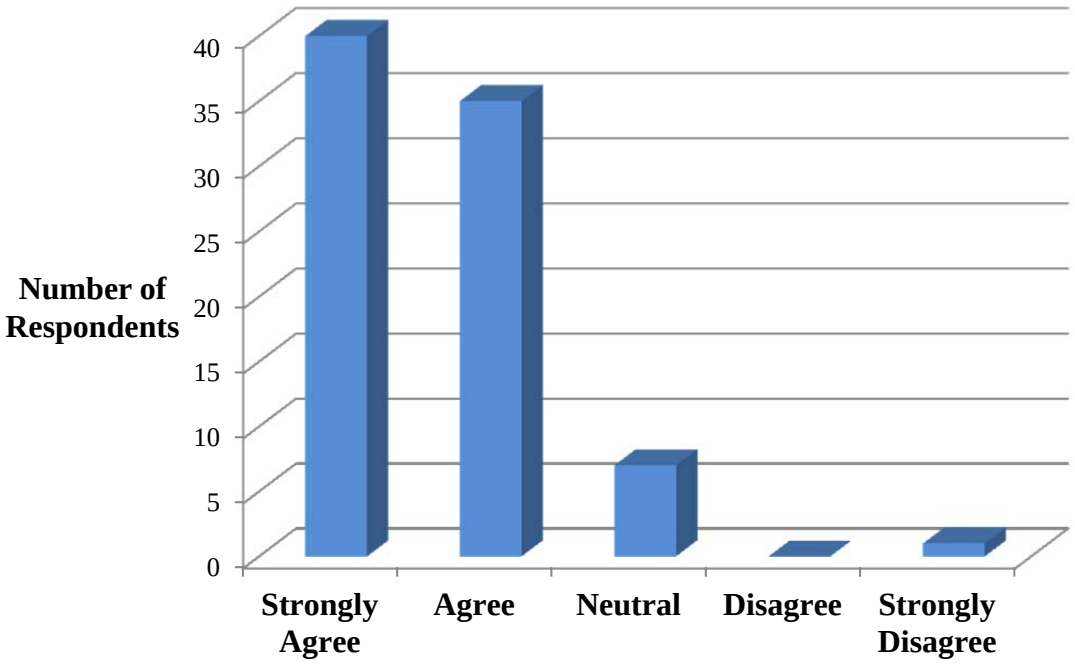
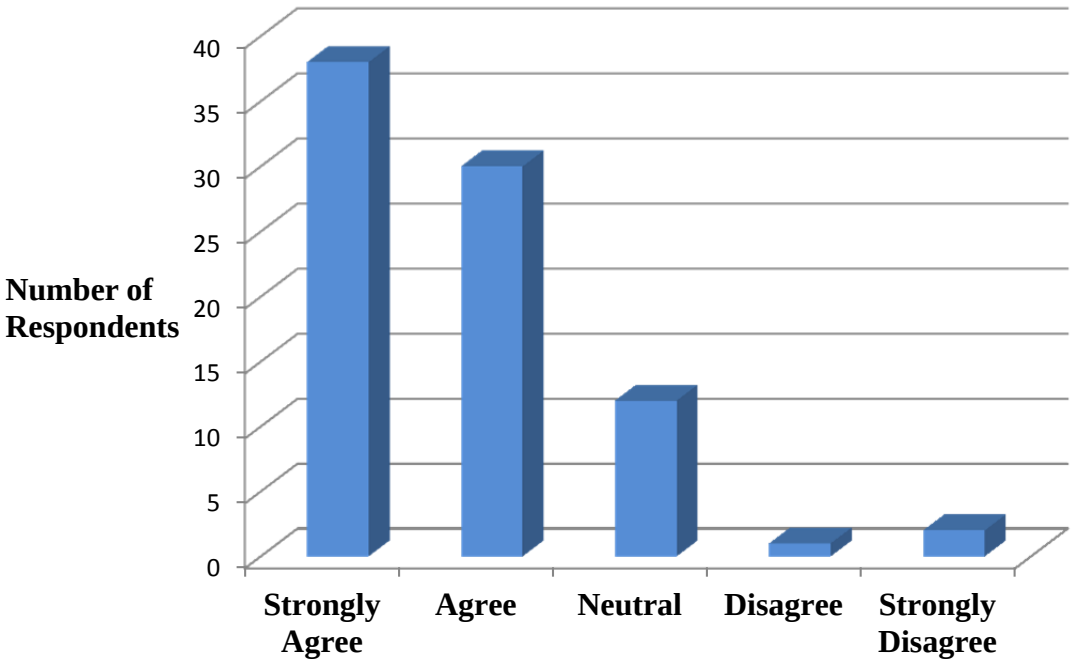


Figure 5.17 depicts the responses of the community members to the statement, "if North Arkansas College had a diesel vehicle maintenance program, would they personally recommend the program to a potential student." The response was positive in that 68 of the community members sampled would personally recommend the program to an interested student. An important aspect of the data collected from this question is to note the number of "strongly agree" response is the highest when compared to the number of the other possible responses. The average of all of the responses for this statement was 4.22.

Figure 5.17: Survey Response by Community Members on Personal Recommendation of Program to Potential Students



Finally, the community members had an opportunity to submit any other comments they felt would be beneficial to the study. Those comments are listed below:

- *"I would hope that a program like this would not take students away from current programs."*
- *"I am the counselor at a high school in Marion County, and I have many students that have expressed interest in diesel mechanics. The cost of the programs that I am aware of have always been cost prohibitive, $22,000 per year is just not something any of the students who want to go can fund."*
- *"We have students that go far away for this program and we need them to stay locally because they would likely finish this program if here."*
- *"I am a high school counselor in the out-lying area of North Arkansas College. This institution is a vital asset to my graduating seniors. NAC's Secondary Center*

program which trains our juniors and seniors provides an important service. However, each year my students are disappointed to learn that diesel mechanics is not a program. Our only option for students wishing to study this field of mechanics is sending them over 2 hours away after they graduate high school. Adding this program would greatly benefit a large portion of my students."

- *"I am indifferent to any aspect of this program because I have virtually no interest in this area."*
- *"I think this would be a good program to get started!"*
- *"This is a good way for students to get into the Northark College and be mechanics."*
- *"I think that a diesel mechanics program could be good, with all the farmers and people that drive trucks that require diesel along with tractors and other farm supplies, it could be a good business."*
- *"I don't really enjoy this line of work but it's okay."*
- *"I am not a mechanic, but have relatives that would love to come here for this."*
- *"I am the manager at FleetPride (previously Premier Truck Parts). This area is in need of educated technicians as a large number have little to no knowledge of the vehicle they are working. I would be interested in helping get this program started and/or help with training."*
- *"All people need a trade, no matter what their profession."*
- *"I am a high school counselor, and many of my students are interested in diesel mechanics. They usually look at schools in Oklahoma or New Mexico. It would be great if this program becomes available locally!"*

- *"I have a friend who retired from diesel maintenance. The trucking company had a devil of a time replacing him."*
- *"I think this would be a good program to add to Northark's already healthy tech dept."*
- *"I am a local graduate of NAC and try to convince all local students to go to NAC and I personally think another option for students in this area is a great idea. There are way too many kids (people) graduating college with a general degree and not having very good luck finding good employment and I think there is more demand for people with a certain trade now days."*
- *"I think with rising gas costs, with alternative fuel uses that are already being employed in diesel engines, and given the region in which we live, a diesel automotive program seems to make good sense and would be in demand given the numbers of vehicles and agricultural machinery this region."*

5.4 Overall Assessment of Community Members Response from Interest Survey

There seems to be a positive response from the community regarding the proposed diesel vehicle maintenance program. In all the data that were collected from the statements asking if the community members would recommend students to a potential diesel vehicle maintenance program, only 3 out of 84 respondents submitted a response of "disagree" or "strongly disagree." Keeping in mind that the age groups of the community members was evenly distributed, this strong interest from the community shows that the program would most likely have support in all aspects.

5.5 Analysis of the Response of the Prospective Employers from the Interest Survey

The last category sampled by the interest survey is the prospective employers. Of the 16 respondents in this group, all but three were from the state of Arkansas. Table 5.7 summarizes the size of the businesses of the prospective employers that responded to the interest survey.

Table 5.7: Summary of Respondents' Size of Business

Size of Business Where Respondent is Employed	
1-4 Employees	2
5-10 Employees	7
11-20 Employees	4
20+ Employees	3

Figure 5.18 depicts the number of responses from the prospective employers for the statement "I believe that there is a good outlook for future opportunities in the field of diesel maintenance." The analysis reveals that the prospective employers sampled have a very strong positive agreement with this statement. The calculated average of this group using the same previous scale is 4.88.

Figure 5.18: Survey Response by Prospective Employers on Their Perception of the Employment Future for Diesel Maintenance Technicians

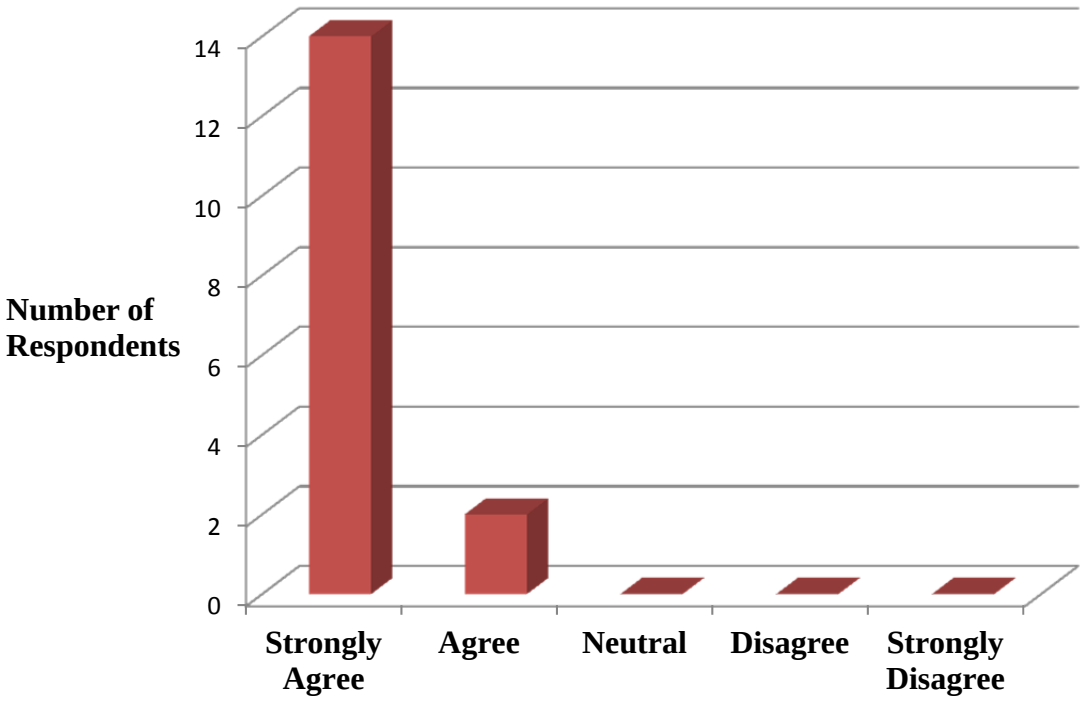


Figure 5.19 depicts the number of responses from the prospective employers for the statement "adding a diesel vehicle maintenance program to North Arkansas College would increase the overall value to the community." The average of the responses for this statement is 4.81. Again, the analysis reveals that the prospective employers sampled have a very strong positive agreement with this statement. This could be a reflection on their belief that a diesel maintenance program is needed for the education of students and for the benefit of the local economy.

Figure 5.19: Survey Response by Prospective Employers on the Overall Value of North Arkansas College to the Community

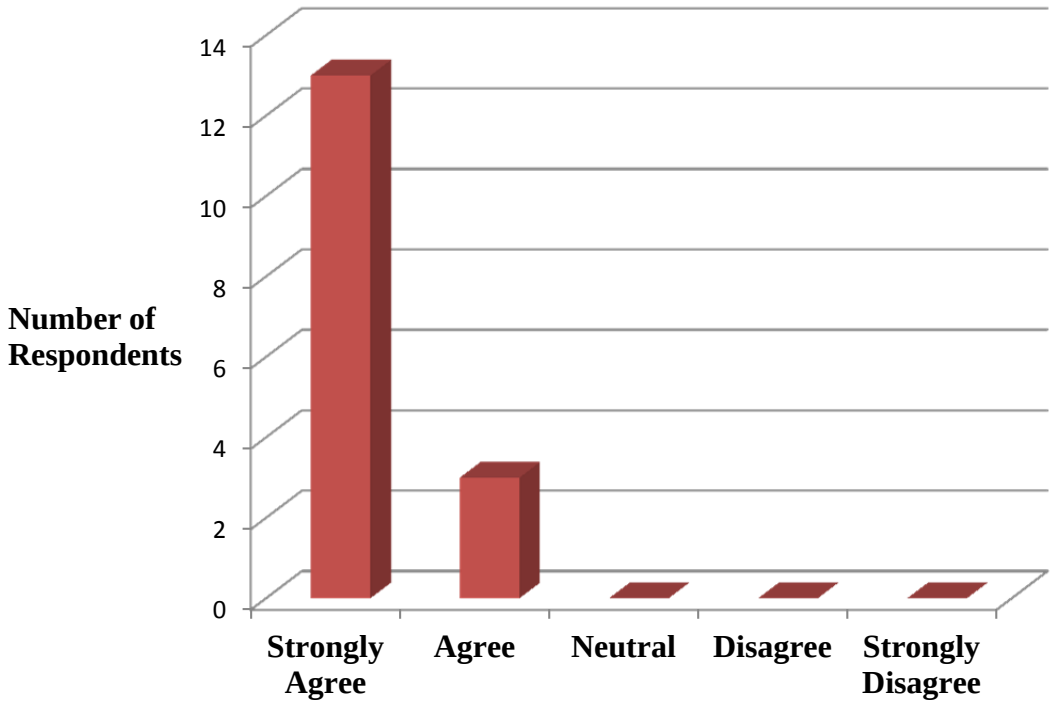


Figure 5.20 depicts the number of responses from the prospective employers for the statement "I foresee opportunities at my business for a diesel vehicle maintenance technician." The average of the responses received for this statement was 4.50. The data were not as positive as the other responses, but, is nevertheless, still positive. The data indicate a few conditions, however. First, the employers sampled have already stated that they feel that the diesel vehicle maintenance field is full of opportunity. However, in light of this data, the employers may feel that the technicians may have to travel out of the area to find employment. However, it is important to realize that the sample size of 16 respondents is rather small. Further research on this statement should be done to ensure what the perception of the possible employers is.

Figure 5.20: Survey Response by Prospective Employers on Opportunities for Technicians at Their Businesses

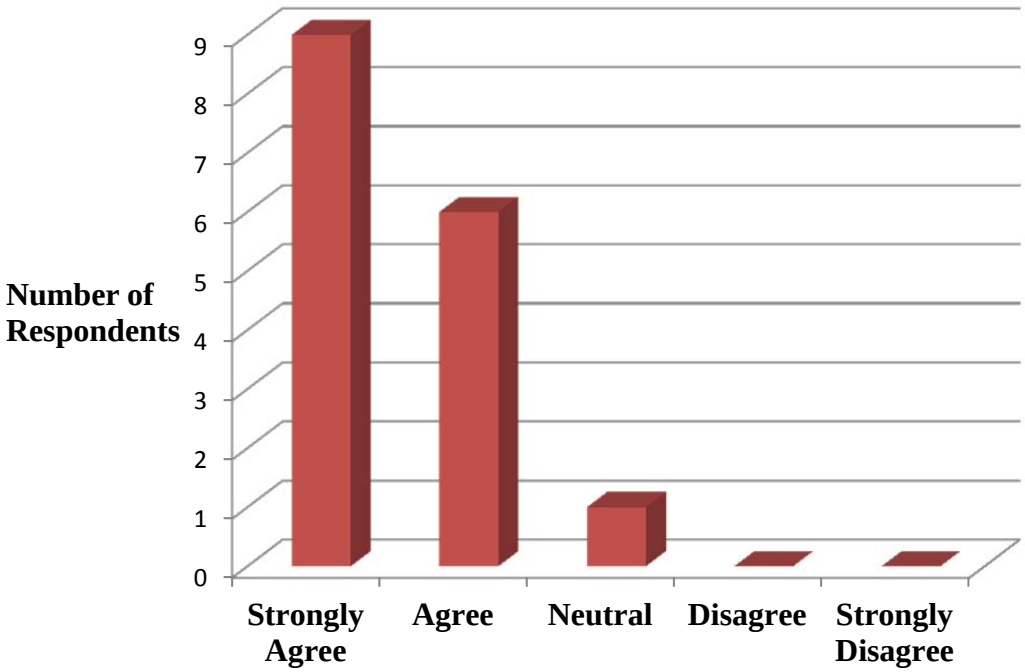


Figure 5.21 depicts the number of responses from the prospective employers for the statement "An employee with a certificate or degree in diesel vehicle maintenance would add value to my business." The data received on this statement is positive, with a calculated average of 4.69. The data from this group reinforce the presumptions made that there are opportunities, maybe just not at the sample's respondents' place of business.

Figure 5.21: Survey Response by Prospective Employers on North Arkansas College Graduates Adding Value to Their Business

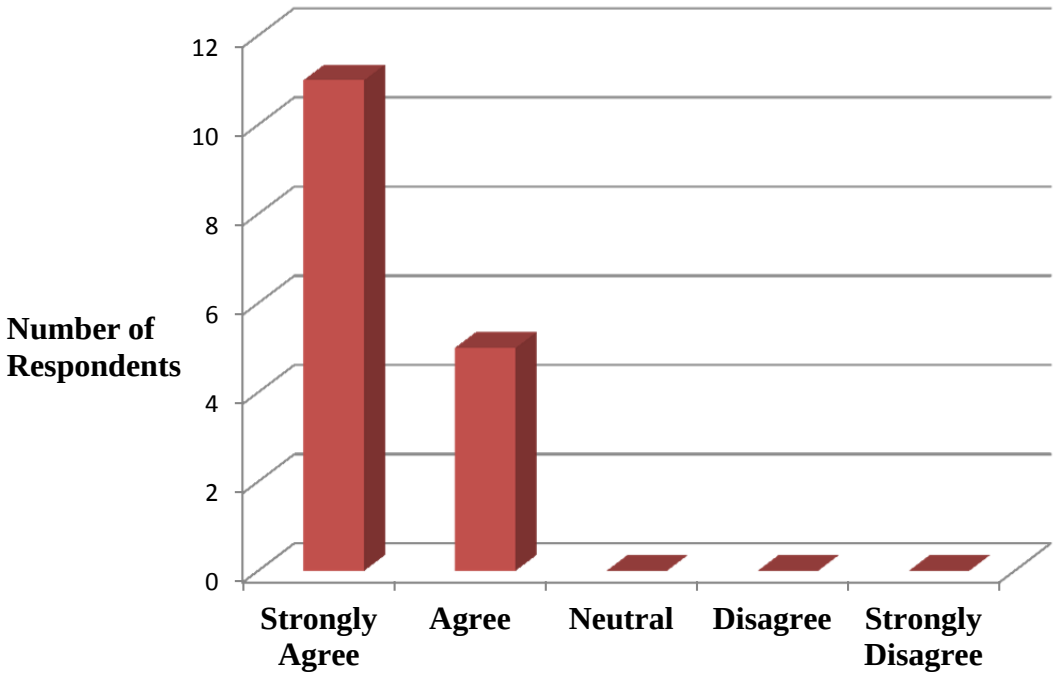
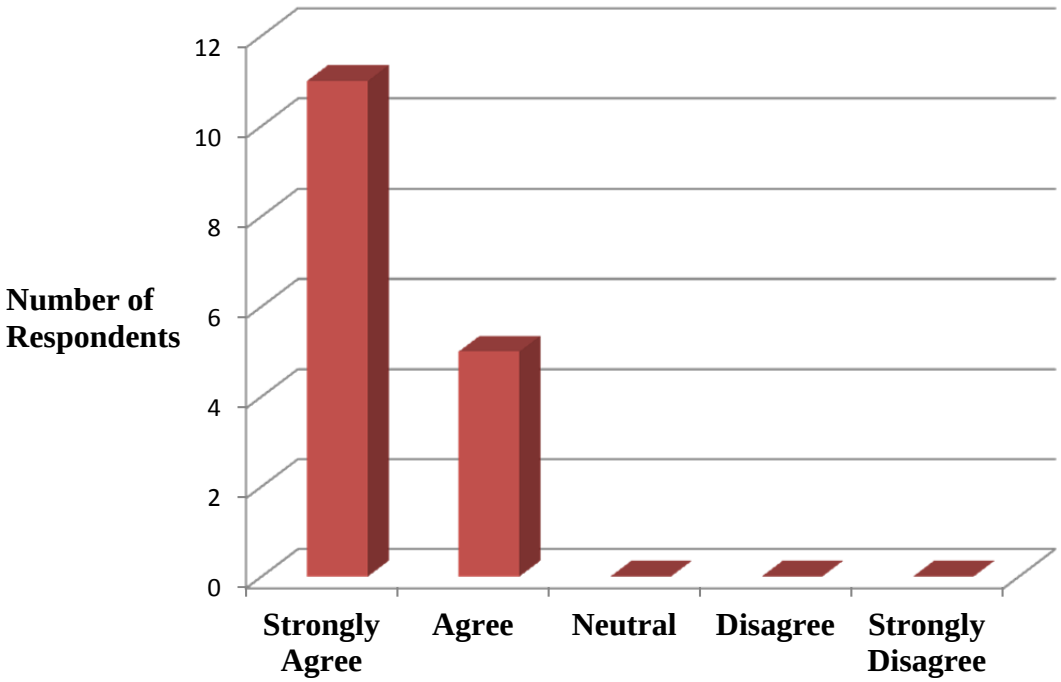


Figure 5.22 depicts the number of responses from the prospective employers for the statement "I would hire a graduate of a diesel vehicle maintenance program from North Arkansas College." Again, the data received on this statement is positive, with a calculated average of 4.69. This statement measured the perceived interest of the prospective employers in the region with all of the factors considered. The result is a very positive response to the proposed program.

Figure 5.22: Survey Response by Prospective Employers on Hiring Graduate from a Diesel Vehicle Maintenance Program at North Arkansas College



The potential employer group had a chance in question 20 to submit additional comments that they felt were beneficial. Those comments are listed below:

- *"This is a great idea."*
- *"Very glad to see that the program is under consideration."*

The potential employers were also presented with the information of the average annual salary of $42,250 and a small description of the work that the typical diesel technician would do in question 15. Next, the statement, "given this data, would you be willing to pay this amount to a graduate of a diesel vehicle maintenance program" was asked. All but two potential employers said "yes." The other two respondents indicated "maybe." The potential employers were also asked, "If they had an employee wanting to enroll at a diesel vehicle maintenance program, would they willing to pay for the tuition." Table 5.8 summarizes the results to this statement from question 16.

Table 5.8: Summary of Respondents' Willingness to Pay Tuition

Yes	2
Some of it	11
No	2

5.6 Overall Assessment of the Response of the Prospective Employers from the Interest Survey

Overall, the response by the prospective employers was positive. This group of survey respondents is important since these individuals may have the most realistic view of the current condition of the diesel maintenance field and are those that will be potentially hiring the graduates of the diesel vehicle maintenance program. Based on the received data, the prospective employers have an interest in a diesel vehicle maintenance program and North Arkansas College and would be supportive of such a program.

5.7 Results from the Final Page of the Interest Survey

All respondents completed the final page of the survey, which measured some topics that pertained to all of the categories. The first question of this page was question 17, which presented the statement, "Research has shown that the tuition costs of North Arkansas College to be significantly lower than some national diesel vehicle maintenance programs. Would this fact cause you to prefer a potential Diesel Vehicle Maintenance Program at North Arkansas College?" The results of this question are summarized in Table 5.9

Table 5.9: Summary of All Respondents on Importance of Low Tuition of North Arkansas College

Yes	111
Maybe	44
No	10

The next question on the final page of the survey, question 18, asked the statement, "What would you consider to be the most important aspect of a potential Diesel Vehicle Maintenance Program at Northark?" The results of this statement are depicted in Table 5.10:

Table 5.10: Summary of All Respondents on Most Important Aspect of a Potential Diesel Vehicle Maintenance Program at North Arkansas College

Affordability	50
Hands-on vs. Lecture	53
Accessibility of College	13
Reputation of Graduates	49

Finally, the last question the respondents answered, besides the open-ended question 20, was question 19. This question contained the statement, "How did you hear about this survey?" The results of this statement are represented in Table 5.11:

Table 5.11: Summary of All Respondents How Respondents Heard About Survey

E-mail	36
Northark Website	37
Local Newspaper	4
Word of Mouth	59
Hand Delivered Letter	34

5.8 Analysis of the Positioning of the Potential Diesel Vehicle Maintenance Program in Marketplace

For the potential diesel vehicle maintenance program to be successful in the long-term, research, planning, and purposeful action must be taken to position the program appropriately in the marketplace. To accomplish this, all factors must be considered including the results of the survey, the items learned on other programs, and the college's knowledge of its own programs.

The first area to consider is how the tuition costs would be structured. Based on past success of other technical programs at North Arkansas College and the results from questions 17 and 18 of the survey, the program would be better positioned if the tuition costs used the same schedule as the other programs of North Arkansas College. If tuition costs can be kept low, value is added to students seeking to increase their education affordably.

The next area to consider is the type of degree or certificate to be offered. Based on the research conducted, the options that are available for the program are certificate of proficiency, technical certificate, or an associate's degree. Recently, the college updated its mission statement to "North Arkansas College's mission is to provide high quality, affordable, convenient opportunities for learning and community enrichment." With this change in mind and consistent with the response of the respondents in the survey, the college should consider making both the options of technical certificate and an associate's

degree possible. This would make the program more flexible and possibly add value to the students, community, and employers.

A major factor in the positioning of the program is curriculum selection. Other curriculums cover similar areas, but a few set themselves apart. These programs, such as Ozarks Technical Community College and Northwest Technical Institute have adopted the curriculum of the National Automotive Technicians Education Foundation, or NATEF (www.natef.org). In aligning the program with the mission of the college, it is possible that the best option is to adopt the strict requirements and learning objectives of the NATEF. If this is done, the program can go through the accreditation process to become ASE Certified. The benefits of this accreditation are numerous and include: giving credibility to the potential program, helping to keep the program current on new technology and procedures, and adding more value to the certificate or degree that the graduates present to potential employers. NATEF provides a complete list of technical areas that must to be taught in a diesel vehicle maintenance program and tasks that the students are required to have mastered by the time they graduate. However, NATEF does allow flexibility in regards to what areas are taught. To align with NATEF's standards, the description of the program must match with what is being taught. Therefore, the curriculum used would entirely depend on if the program resulted in an Associate's degree or certificate and what areas of instruction the lead instructor or dean of the program offer. NATEF's list and many other resources could be used to set up the program's curriculum to make sure the program is positioned to provide high quality and affordable education for potential students.

Another component of the positioning of the program is the time required to finish the program. To make it attractive, the program cannot be too long or the students will view the opportunity costs of the sacrifice to attend the program too high. One significant opportunity cost for a prospective student might be the income they give up while to attending school. However, if the program length is too short, the required material cannot be taught to ensure that the graduates are learning the concepts required. Based on survey results from question 8 and the research of other successful programs, the optimal time may be three semesters. Evaluating the time required to teach the concepts that NATEF requires and what other established programs are doing, three semesters seems to be appropriate. This would allow a new class of students to start the program both in the spring and fall semesters, adding more flexibility in graduation dates for the students and overall value to the potential program.

One aspect that plays a major role in the positioning of a program in the marketplace that is often overlooked is the building floor plan. The building floor plan can be a major difference in the efficiency and teaching effectiveness of the instructors. If the building floor plan is conducive to the learning process, the reputation of the program will be strengthened, thus making the program more competitive. Research was done in this area with regards to the best setup that would meet the current and future needs of the program, while taking account the project budget. In the end, a tour of Northwest Technical Institute resulted in a floor plan that could best meet the needs of a potential diesel vehicle maintenance program. Figure 5.23 illustrates the dimensions of the floor plan.

Figure 5.23: Proposed Floor Plan for Potential Diesel Vehicle Maintenance Program

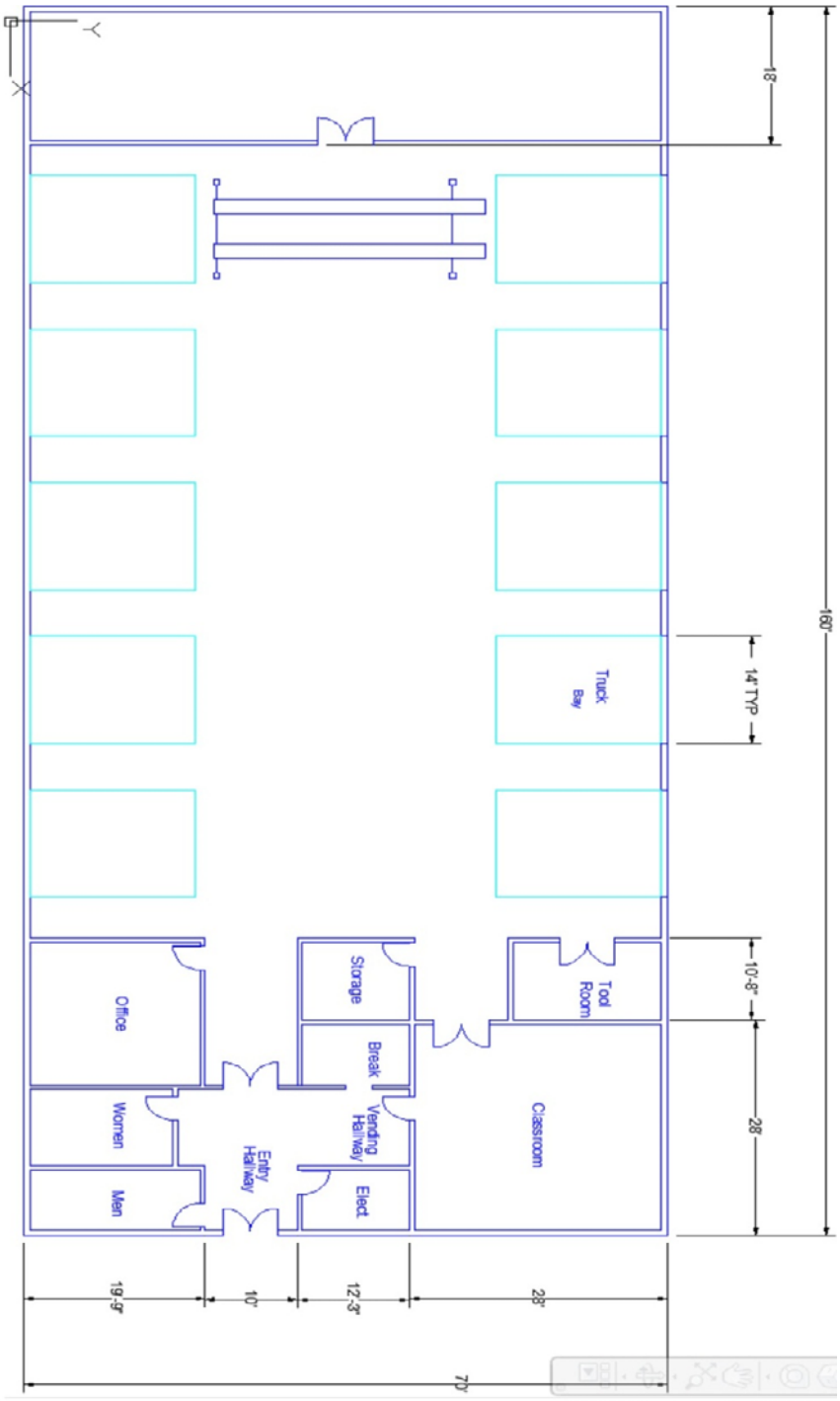


Figure 5.23 was based on a planned expansion floor plan at Northwest Technical Institute. They plan on adding onto their existing building that houses their current Diesel and Truck Technology program, so, this floor plan is revised to meet our needs. The part that is similar is the lower part of Figure 5.23 that includes the classroom, office, restrooms, and storage rooms. The estimates on desired dimensions of all the stalls for the trucks and all of the rooms were also based on NTI's furnished floor plan.

As Figure 5.23 depicts, the proposed building is 160' long and 70' wide. What is not shown on the floor plan but will be covered later is that the proposed building has 21' sidewalls to house large trucks that will enter the building to be worked on. Each stall will have an insulated overhead door that is 16' tall by 14' wide. The overall goal of the floor plan is to create an environment that is comfortable for both the students and instructors and that works well for traffic flow as the students enter the building, move into the classroom, and work out in the shop on vehicles. The stalls are designed to house 10 large trucks to be worked on at 10 stations supporting teams of 2 to 4 students. The stalls are positioned to make it easy to maneuver trucks in and out of the building without disturbing other areas of the building. The two parallel bars at the top of Figure 5.23 are where a full truck lift would go. The reason that it may work at this location in the building is that it is out of the way of the main traffic areas. The full truck lift would add value to the program by providing the ability to the instructor to demonstrate the many systems and procedures of the diesel truck. The last room at the top of Figure 5.23 is a storage room for all tools, supplies, or anything else that needed to be present at the building.

The last major factor that would need to be considered to properly position the potential diesel vehicle maintenance program is the number of faculty needed to

sufficiently instruct the students while keeping the operating costs low. As research was done in this area, it became apparent that this is a difficult factor to determine. Based on the existing Automotive Service Tech program at North Arkansas College and research of other relevant programs, the number of required faculty include one full time instructor and one or two other part-time professionals that assist the instructor during work time in the shop. This provides the instructor the flexibility of having more individuals to provide the "hands-on" teaching that the respondents of the desired, while also keeping costs down. Part-time professionals typically cost less than full-time instructors and can be available during certain hours.

In the end, considering all of the information gathered, the program's best position might be to make it similar to the more successful programs in the area that have been established for some time and allow the location of the school relative to other programs in the area be the attribute that makes it unique. The fact that there are no other programs of this nature in the area is a great asset. The goals of instruction and curriculum content should be similar to those of its competitors, such as Northwest Technical Institute, that have already established success in the area.

5.9 Analysis of the Capital Costs of Starting a Diesel Vehicle Maintenance Program

When starting a program of any kind, there are going to be significant startup costs. This is also true for the potential diesel vehicle maintenance program at North Arkansas College. To determine the feasibility of the program from a cost standpoint, research was conducted on the major capital costs that would potentially be incurred. The analysis is not a detailed cost summary but one that covers the major capital costs to be considered for the overall feasibility of the program. Table 5.12 summarizes all of the major capital costs of starting a potential diesel vehicle maintenance program at North Arkansas College.

Table 5.12: Summary of Major Capital Costs of Starting a Diesel Vehicle Maintenance Program

Capital Costs of Projected Diesel Vehicle Maintenance Program			
(All figures are estimates)			
Building for Program Costs			
Metal Building Frame	$	88,683.02	
Cost of Erection of Metal Building	$	39,200.00	
Concrete for Floor/Footings	$	65,000.00	
Finishing of Classrooms, Offices, Restrooms	$	218,400.00	
			$ 411,283.02
Capital Purchase of Equipment			
General Hand Tools for Shop for 10 Stations	$	40,000.00	
Lab Tools for 10 Stations	$	45,000.00	
Specialty Tools For Specific Program Areas	$	65,000.00	
One Full Truck Lift	$	50,000.00	
26 Computer Stations for Classroom	$	52,000.00	
			$ 252,000.00
		Total Capital Costs	$ 663,283.02

The first item in Table 5.12 is the estimate of a metal building frame. The estimate for this was obtained from Heritage Building Systems of Little Rock, AR. This company was chosen due to prior experience of the company with constructing other buildings for North Arkansas College. This estimate includes all the costs of materials for a 160’ x 70’ x 21’ building. The materials included in the estimate are the frame of the building, all outer metal coverings, overhead doors, windows, walk-through-doors, and an eight foot wooden liner to go on all walls in the shop to protect the building and the students. Figure A.1 in the appendix includes a copy of the bid received for the metal building.

The next line in Table 5.12 is the cost of erecting the metal building. According to an interview with Pat Hill of Heritage Buildings (2012), the average cost of constructing a

metal building, such as the one proposed, is \$3.50 ft^2. With 11,200 ft^2 in the potential building, the costs of erecting the building would be \$39,200.00.

The third line in Table 5.12 is the cost of the concrete to construct the footings and the floor. Concrete prices are expressed in cubic yards. To obtain a price of concrete for the building, a conversion had to be done using the following formula:

$$\frac{\text{Length (Feet) x Width (Feet) x Depth (Feet)}}{27}$$

The areas that were needed concrete is the footing for the building to be built on, the entire floor inside the building, and both sides of the building in which the overhead doors are located on. The footing was calculated to be 2 feet by 2.5 feet deep. The length of the footing was calculated by using the circumference of the building. Both the floor and the outside pads were calculated using a depth of 8 inches. The outside pads were calculated to be the entire length of the building and 25 feet wide. After inserting all of the stated figures into the formula, it was determined that the building would need 5,773 cubic yards of concrete. This number was rounded off to 6,000 cubic yards and multiplied by the current going rate of concrete of \$100/yd^3. This rate was provided by Kevin Somers of North Arkansas College, who is the physical plant manager and has recently assisted North Arkansas College in constructing several projects for the college that used concrete.

The fourth line in Table 5.12 is the cost finishing the classrooms, offices, restrooms, and storage rooms of the potential building. This work includes framing the walls, electrical work, plumbing, dry wall finishing, and floors. The calculation of this figure was done by multiplying the square footage of the classroom and office area of the potential building by the estimated current rate of finishing construction per square foot. The square footage of the classroom and office area was 2,730 ft^2, which was calculated by

multiplying the width of the area, 70 feet, by the length of the area, 39 feet. The estimated current rate of finishing construction was obtained by contacting a licensed local contractor who is familiar with construction. Eugene Coffman stated that the current rate for this type of construction would be about $\$85/ft^2$.

The next three lines list estimates for tools that would be need for a potential diesel vehicle maintenance program. The list used was obtained from the NATEF organization. This list is the required tool list needed to become ASE certified, which is a goal of the potential program. This list is in three categories; hand tools, lab/shop tools, and specialty tools used during the program. The estimated enrollment of the program is 25 students, which is based on the number of students enrolled in area programs, the estimated demand of the area, and the current enrollment of the current Automotive Technology program at North Arkansas College. It is assumed that each station can handle up to 3 students, so the building could potentially contain 30 people at 10 stations. The estimate was calculated using this enrollment and the standards set by NATEF concerning the tool sets needed per student. The list was supplied to Bill Waggoneer of Snap-On Tools (2012) to calculate a rough estimate of the costs of all the tools. Mr. Waggoneer provided the estimate because he has experience with supplying programs with tools that are ASE certified. During an interview, Mr. Waggoneer supplied the figures listed in Table 5.12 after he had extensively reviewed the tool list supplied to him.

The next line in Table 5.12 contains the estimate for a full truck lift. This estimate was also supplied by Mr. Waggoneer. The full truck lift would be a four post lift and would be rated for up to 50,000 lbs. and would be completely stationary.

The last line in Table 5.12 contains an estimate for computer stations for the classroom of the potential diesel vehicle maintenance building. The number of computer stations needed was based on the estimated enrollment of 25, plus one instructor. The total of 26 computer stations was multiplied by the amount of $2,000 per station. This amount was used from recent previous experience in supplying a classroom in the Business and Technology Department at North Arkansas College.

An important factor to consider when analyzing the capital costs, specifically the building for the program, is to realize that the college would be able to provide a significant part of the costs itself. Many programs would be able to provide assistance in starting this program such as the Heavy Equipment Operation program being able to provide equipment and students to do the "dirt-work" required to build the building. Another example would be the Construction Technology program helping build the classrooms and offices in the building. Lastly, the Heating and Air Conditioning program could install the heating and cooling system. These would be of substantial savings to the college and the students involved would gain hands-on education.

5.10 Analysis of the Operating Budget of a Potential Diesel Vehicle Maintenance Program

A critical part of analyzing the feasibility of starting a diesel vehicle maintenance program is having an understanding of what the operating budget would look like. In the current economic conditions, it is crucial for the college to make informed decisions before endeavoring into a project like a diesel vehicle maintenance program. Table 5.13 summarizes the findings of what the potential operating budget would look like for a diesel vehicle maintenance program.

Table 5.13: Summary of the Operating Budget of a Potential Diesel Vehicle Maintenance Program

Operating Budget of Proposed Diesel Vehicle Maintenance Program		
Annual Operating Costs		
Instructor's Salary	$36,000	
Instructor's Benefits	$17,000	
Professional Part-Time Assistants	$15,000	
Small Shop Tools	$6,800	
Non-Capital Equipment	$2,000	
Equipment Repair Expenses	$1,500	
Equipment Maintenance & Service	$1,500	
General Software Acquisition	$1,000	
Uniforms-Laundry Services	$1,400	
Teaching Aids-Non Capital	$4,000	
Other Miscellaneous Costs	$3,935	
		$ 90,135
Annual Projected Revenue		
Income on 15 students	$ 36,150	
Income on 20 students	$ 49,620	
Income on 25 students	$ 63,090	
(Average of three estimates)		$ 49,620

The annual operating costs in Table 5.13 were based on a current program at North Arkansas College. The Automotive Technology program at North Arkansas College would be comparable to a potential diesel program in that the supplies, maintenance, repair expenses, salaries, and other costs would be very similar. Both programs would be working on vehicles, conducting instruction in a very similar manner, and would be located on the same campus. The only obvious difference is the additional amount to maintain and repair some of the equipment that is needed to specifically work on diesel engines. This cost

could be more or less than the cost currently experienced by the Automotive Technology program.

The annual projected revenue was based off of the structure that North Arkansas College currently projects its tuition income for other programs. This program would potentially follow the same structure. The tuition income in this structure is calculated by using a mix of 60% in-county, 30% in-state, out-of-county, and 10% out-of-state residents. The tuition rates used to calculate each of the tuition costs for each of the resident types was $990 for in-county, $1,350 for in-state, out-of-county, and $2,415 for out-of-state. This rate assumes that the students will be enrolled in 15 or more semester hours. This mix is used to calculate the potential revenue for the three possible scenarios of 15, 20, or 25 students listed in Table 5.13.

For this program to be profitable, the college will need to receive additional income from another source besides the student tuition. This, however, is a common occurrence in higher education in that most colleges depend on some state funding to meet operating costs and provide cost effective education to its students. This operating budget is comparable to several operating budgets of successful programs at North Arkansas College such as the Automotive Technology, Truck Driving, and Welding programs.

5.11 Analysis of the Overall Fit of a Potential Diesel Vehicle Maintenance Program at North Arkansas College

Finally, an analysis was conducted with how a diesel vehicle maintenance program would fit into the current programs and mission of the college. Items analyzed were the location of the building for the program and how the potential program would affect current programs.

First, analysis was put into the planning of where a building for the potential program would best fit into the north campus of North Arkansas College. Currently, North Arkansas College has three campuses in the city of Harrison, AR. The north campus houses the technical programs of the college. Many ideas were brought forth by employees of the college that were asked about the location for a potential building that contained concerns about traffic flow and overall student interaction. All of these suggestions and concerns were considered and narrowed down to the solution that best satisfied concerns. Figure 5.24 depicts a map of the north campus of North Arkansas College and where the building could potentially be built. Figure 5.24 also depicts a potential road that could be constructed to ease the current and future problem of traffic flow.

Figure 5.24: Map Containing Potential Site for Building Housing Diesel Vehicle Maintenance Program

The placement of the potential building as depicted by Figure 5.24 offers many benefits. First, this space is already owned by the college, so no new land would have to be purchased. Also, at this site, land would be left untouched for growth of any other future programs.

Second, this area would enhance the programs that currently occupy the area. The Truck Driving program currently uses the gravel lot that part of the proposed building site would take up. However, the program would gain more area to do instruction with the trucks and have the possibility of gaining a new classroom. The depicted site would require the removal of two older buildings that house classrooms for the Construction Equipment Operation and Truck Driving programs. However, considering the elevation of the ground of this particular site and the required height of the building for diesel trucks, classrooms could potentially be built directly above the classroom and office for the diesel vehicle maintenance program. Access to the classrooms could easily be installed at ground level into the upper level of the building, thus removing the interruption of the involved programs. This addition is not reflected in the capital costs estimate, but, the marginal costs of adding the classrooms would be much lower than building additional buildings to replace the facilities required to be removed. This addition would also create synergy between the programs proposed to be housed together in the building. This site could not only provide an excellent site for a new program, but also provide a much needed upgrade for two current programs for a much lower additional cost when compared to the costs of new separate buildings.

The site would also ensure that the students would not be far from the other classes that they might have on campus and from the Student Center, in which interaction takes

place between all students on the north campus. This site also ensures that all programs located on the north campus would benefit from each other due to proximity. For example, the diesel vehicle maintenance program could foreseeably need welding work while the Construction Equipment Operation and Truck Driving program would need frequent maintenance work done on their equipment.

Finally, the site may also contain a new road on land that is not utilized currently. This land will not be easily used for anything else due to its narrow shape and the elevation of the ground. However, a road could be installed along the border of the campus that would relieve some existing traffic problems and accommodate the increase of truck traffic associated with a diesel vehicle maintenance program. With this new road, the large size diesel trucks would be directed away from automobile traffic and pedestrian crossings and allow easier entering and exiting onto the pavement in front of the college. The costs of building the road would be greatly reduced by using students in the Construction Technology program. The significant cost of this road would be the type of material used to build the road and is not reflected in the capital costs estimation.

CHAPTER VI: CONCLUSIONS

Diesel vehicles have steadily increased in popularity in all industries in the United States over the last few decades. With this increase has come the greater demand for qualified diesel technicians to maintain and repair those vehicles. The objective of this study was to analyze the interest level in the community of North Arkansas College of starting a diesel vehicle maintenance program, determine the capital costs of starting the program, understand what the marketplace resembles for such a program from North Arkansas College, and determine if a diesel vehicle maintenance program would be a good fit at North Arkansas College.

An interest survey was offered to potential students, prospective employers, and interested community members in regards to a diesel vehicle maintenance program at North Arkansas College. The overall results from the survey revealed that the community would likely support starting a diesel vehicle maintenance program. The results from the potential students revealed that many would prefer a diesel vehicle maintenance program at North Arkansas College. The strongest response came from the potential employers. For every question asked about starting a program except one, all employers replied that they "agreed" or "strongly agreed" with the statement provided. Overall, the data reveal that the community surrounding North Arkansas College has significant interest in a diesel vehicle maintenance program.

Study of the capital costs of the program revealed that there will be significant costs, but the program can be started in a cost effective manner that makes the program viable to the college. Many factors such as land already owned to place a new building on, current programs being able to help build buildings, and synergy with existing programs

provide the opportunity to start the program without incurring prohibitive capital and operating costs.

Study of the marketplace for a program such as North Arkansas College could offer reveals that it would be a great fit. Although the program would offer benefits to make it attractive in the marketplace, the main factor that creates a market for the program is the location of the college. Many students currently are traveling long distances to obtain the education that could be offered closer to home. This potentially offers more benefits to potential students, especially if the program is offered at significantly lower tuition rates than other programs. One key for the success of the program will be to establish a good reputation among the employers and community members

Finally, the study reveals that the program would have tremendous synergy with current programs at North Arkansas College. The program would complement the programs currently offered at the college and would provide a great option for students to enhance the skills that they need to compete for the higher paying occupations in the workplace. Analysis revealed that the program would not interfere with programs currently offered at the north campus or any other campus. In fact, the program would most likely improve the surrounding programs.

Further study of the overall costs of the program is needed before deciding to start this program. Analysis is only provided for the major capital costs of the program, thus more research will need to be done to find an exact cost of starting a diesel vehicle maintenance program.

A concern for the success of this potential program is the issue of graduating technicians saturating the market in the area around North Arkansas College. Demand is

high at the current time, but, the issue needs further study will supply of graduates from this potential program satisfy the immediate demand for technicians in the next few years. Another concern is if the addition of a diesel vehicle maintenance program would "cannibalize" the Automotive Technology program. If the program becomes successful, will there be a continuing demand for Automotive Technology? More research needs to be done to determine if these two programs should be combined or associated in some manner.

Despite these concerns, the results of this thesis indicate that it is reasonable to begin to moving forward with efforts to begin a diesel vehicle maintenance program at North Arkansas College.

REFERENCES

ACRS Arkansas Consumer Report System. 8 July 2011. 14 November 2011 <https://www.employment.arkansas.gov/ACRS/ASP/Public/Home.asp>.

Arkansas Department of Career Education . 2012. 12 November 2011 <http://ace.arkansas.gov/Pages/default.aspx>.

Chambers, Kent. Northwest Techinical Institute Diesel and Truck Technology Senior Instructor Matt Shekels. 4 November 2011.

Coffman, Eugene. Commercial Contractor Matt Shekels. 13 March 2012.

Greg Smith Equipment Sales, Inc. 2011. 5 April 2012 <http://www.gregsmithequipment.com/Mobile-Column-Lifts>.

Hill, Pat. Heritage Buildings Salesman Matt Shekels. 17 Febuary 2012.

NADC-Nashville Auto-Diesel College. 2011. 2011 15 October <http://nashvilleautodiesel.net/#>.

NATEF. "National Automotive Techinicians Education Foundation." 1996. NATEF. 14 October 2011 <www.natef.org>.

Ozarks Technical Community College. 2011. 15 October 2011 <http://www.otc.edu/transportationdiesel/7392.php>.

Proctor, Edward. North Arkansas College Departmental Expense to Budget Report. Harrison: North Arkansas College, 2012.

Pulaski Technical College. 2012. 16 October 2011 <http://www.pulaskitech.edu/>.

"Schedule of Tuition and Fees." 2012. North Arkansas College. 2012 5 April <http://www.northark.edu/!userfiles/files/Future_Students/Admissions/Tuition_Rates.pdf>.

Somers, Kevin. North Arkansas College Physical Plant Manager Matt Shekels. 29 March 2012.

University of Arkansas Community College at Hope. 2011. 15 October 2011 <http://www.uacch.edu/?page_id=1275>.

United States Department of Labor-Bureau of Labor Statistics. 18 July 2011. 13 September 2011 <http://www.bls.gov/ooh/Installation-Maintenance-and-Repair/Diesel-service-technicians-and-mechanics.htm>.

Waggoneer, Bill. Snap-On Tools Bid Specialist Matt Shekels. 11 April 2012.

APPENDIX A: HERITAGE BUILDING SYSTEMS BID

Figure A.1: Copy of Bid Received for Metal Building for Potential Diesel Vehicle Maintenance Program

DATE: March 8, 2012 Page 1 of 5

HERITAGE BUILDING SYSTEMS
Established 1979

A Company of NCI Building Systems, Inc.
2612 GRIBBLE ST. • N. Little Rock, AR • 72114
800-643-5555 / FAX: 501-945-2255

ACCREDITED

PURCHASE ORDER

[X] PRODUCTION [ ] APPROVAL [ ] PERMIT

BUYER / OWNER INFORMATION

SALESPERSON:	**Pat Hill**	**QUOTE #:**	**030812MS**
BUYER:	Matt Shekels	SHIP TO:	Matt Shekels
COMPANY:	North Arkansas College	ADDRESS:	
ADDRESS:	1515 Pioneer Drive	CITY, ST., ZIP:	Harrison, AR 72601
CITY, ST., ZIP:	Harrison, AR 72601	COUNTY:	BOONE
PHONE:	(870) 754-7516 FAX:	JOB SITE PHONE:	
CELL PH.:		CONTACT:	
EMAIL:	mshekels@northark.edu	**BLDG. END USE:**	4B-Educational

BUILDING SPECIFICATIONS

WIDTH:	70	LENGTH:	160	EAVE HEIGHT:	21
ROOF SLOPE:	1:12	RIDGE TO FRONT:	35	FRAME TYPE:	CLEARSPAN
INT. MODULE SPACING:	0	SW BAY SPACING:	26'8	COLUMN TYPE:	TAPERED
LEFT ENDWALL FRAME:	BEARING FRAME	COLUMN SPACING:	STANDARD	LEW CONDITION:	FULLY-SHEETED
RIGHT ENDWALL FRAME:	BEARING FRAME	COLUMN SPACING:	STANDARD	REW CONDITION:	FULLY-SHEETED

GIRT TYPE:		BRACING:	
FRONT SIDEWALL -	BYPASS	FRONT SIDEWALL -	PORTAL FRAME
BACK SIDEWALL -	BYPASS	BACK SIDEWALL -	PORTAL FRAME
LEFT ENDWALL -	FLUSH	LEFT ENDWALL -	X-BRACING
RIGHT ENDWALL -	FLUSH	RIGHT ENDWALL -	X-BRACING

DRAWINGS & DOCUMENTATION

___ Letters of Certification WITH Engineer's Seal	___ Sets of Design Calculations WITH Engineer's Seal
___ Sets of Permit Drawings WITH Engineer's Seal	___ Sets of Approval Drawings WITHOUT Engineer's Seal
3 Sets of Final Drawings WITH Engineer's Seal	___ Sets of Final Drawings WITHOUT Engineer's Seal
___ Sets of Advance Anchor Bolt Plan WITHOUT Engineer's Seal	

DESIGN LOADS

BLDG CODE: IBC YR/ED: 2006 OCCUPANCY: HIGH BUILDING ENCLOSURE: * ENCLOSED

* ARE FRAMED OPENINGS & OPEN AREAS ENCLOSED WITH MATERIAL DESIGNED TO RESIST WIND LOAD? X YES ___ NO

COLLATERAL LOAD: 1.0 PSF COLLATERAL TYPE: LIGHTS LIVE LOAD(PSF): 20 REDUCIBLE: yes

GROUND SNOW(PSF): 15 ROOF SNOW(PSF): 11.55 SNOW EXPOSURE: PARTIALLY EXPOSED

WIND LOAD(MPH): 90 EXP. B HURRICANE REGION: no ADJACENT BLDG WITHIN 20': no | *If YES, Submit Exist Bldg Form*

SEISMIC D.C. C SITE CLASS: D S_S/A_a: .351 S_1/A_v .13 STD DEFLECTION LIMITS ACCEPTED? Yes | *If NO,*

Please Submit The Required Limits DOES BUILDING INCLUDE A CRANE? no | *If YES, Please Complete "Crane Information" Form*

THERMAL CONDITION: ALL OTHERS IMPORTANCE FACTORS: SNOW: 1.1 WIND: 1.15 SEISMIC: 1.25

TOPOGRAPHIC FACTOR APPLICABLE: YES: ___ NO: X | *If YES, Please Complete The "Topographic Factor Supplemental Form"*

ROOF & WALL COVERING

ROOF PANEL PROFILE:	26GA PBR	COLOR:	GALVALUME	INSULATION THICK:	4"VRR	BY HBS:	YES
WALL PANEL PROFILE:	26GA PBR	COLOR:	COLOR	INSULATION THICK:	4"VRR	BY HBS:	YES

GENERAL NOTES

PLEASE REVIEW THE "HELP TOPICS" @ www.heritagebuildings.com FOR CLARIFICATION TO SPECIFICATIONS, LOADS AND DEFLECTIONS.

LIFETIME WARRANTED ROOF SCREWS INCLUDED. ANCHOR BOLTS BY OTHERS.
ENGINEER STAMPED ERECTION DRAWINGS INCLUDED.
BUILDING OCCUPANCY WILL NOT EXCEED 250 PEOPLE.

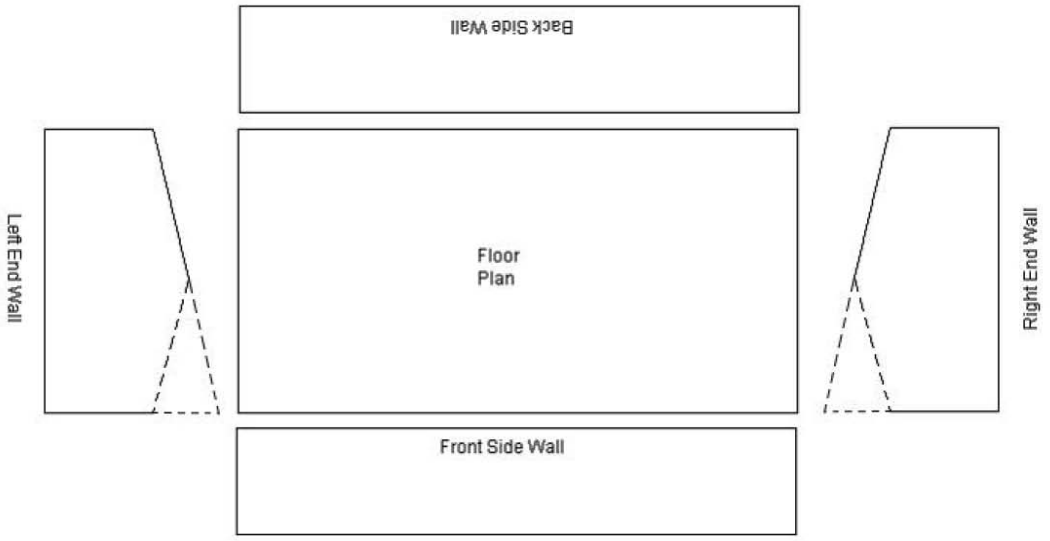
DATE: March 8, 2012

QUOTE #: 030812MS

HERITAGE BUILDING SYSTEMS®
Established 1979
A Company of NCI Building Systems, Inc.
2612 GRIBBLE ST. / N. Little Rock, AR 72114
800-643-5555 / FAX: 501-945-2255

MBMA METAL BUILDING MANUFACTURES ASSOCIATION

FRAMED OPENINGS



(*DRAW-IN & DIMENSION LOCATION OF FRAMED OPENINGS, DOORS, WINDOWS OR ATTACH SEPARATE DRAWING*☐)

SPECIAL CONDITIONS

THIS JOB HAS NO SPECIAL CONDITIONS

ACCESSORIES	QUANTITY	DESCRIPTION
DOORS	2	3070 INSULATED WALK DOOR W/STANDARD KNOB LOCK
DOORS	1	6070 INSULATED WALK DOOR W/STANDARD KNOB LOCK
WINDOWS	10	14X16 DBCI MODEL 5250 INSULATED ROLLUP DOORS
VENTS	-0-	
FRAMED OPENINGS	10	14X16 FRAMED OPENINGS WITH JC FLASHING
FRAMED OPENINGS	-0-	
FRAMED OPENINGS	-0-	
FRAMED OPENINGS	-0-	
FRAMED OPENINGS	-0-	
LINER PANEL	4	8'(29GA) LINER ON ALL WALLS
ROOF EXTENSIONS	-0-	
EAVE CANOPIES	-0-	
SKY / WALL LIGHTS	-0-	
EAVE TRIM	320FT	
BASE CONDITION	INCL	

	ROOF		WALL		TRIM KIT
	COMMERCIAL		DELUXE	X	GUTTERS – DOWNSPOUTS
	BASE ANGLE		BASE CHANNEL		BASE GIRT
	SHEET NOTCH		BASE TRIM: 1 Pc.	X	BASE TRIM: 2-Pcs.

TRIM & COLORS

WALL COLOR:		ROOF COLOR:	
CORNER TRIM:		EAVE TRIM:	
GUTTER COLOR:		FRAMED OPENINGS:	
BASE TRIM:		DOWNSPOUTS:	
ROLL-UP DOORS:		SOFFIT:	
WINDOWS:		OVERHEAD DOORS:	
RAKE TRIM:		RIDGE VENTS:	
WALKDOOR:			

TERMS AND CONDITIONS OF SALE

1. Heritage Building Systems, a division of NCI Group, Inc. ("Seller" or "Manufacturer") provides the following terms and conditions ("T&C") to apply to this Purchase Order ("PO") for Seller's line of metal building products, goods and/or materials (sometimes referred to as "Metal Building System"). The following T&C will apply without exception to this PO and any and all sales by Seller to the customer named herein ("Buyer"). By its execution and/or acceptance of this PO, Buyer unconditionally and irrevocably accepts these T&C which shall not be waived, modified or amended without the express written consent of Seller's President or Executive Vice-President. Terms and conditions contained within any other document or agreement issued by Buyer, whether conflicting with the T&C hereof or not, shall be of no force and effect. Any documents that Buyer may use including, but not limited to, purchase orders or sales acknowledgement forms shall be deemed to be for the administrative convenience of Buyer only, and this PO shall supersede and take precedence over any of Buyer's terms and conditions that may be contained on any such forms.

2. Any plans, specifications, details, descriptions, drawings, documents, terms and/or conditions not specifically created by Seller or expressly referred to herein are not a part hereof and shall not be binding upon Seller. Buyer acknowledges and agrees that this PO is not valid for plan and specification projects since it is based on Seller's product standards only. If required by this PO, Seller will submit to Buyer approval drawings of the Metal Building System to be purchased, which comprises the goods forming the subject matter hereof. Buyer must return 1 set of approval drawings to Seller with a notation thereon of Buyer's outright approval or approval subject to changes as noted on the approval drawings. Notwithstanding any disclaimer noted by Buyer or any third party, approval or approval subject to changes or corrections on approval drawings affirms that Seller has correctly interpreted the overall requirements for the Metal Building System and its accessories, and the exact location of accessories in the building. Seller will not furnish detailed shop drawings of individual parts of the Metal Building System. If Buyer waives the right to receive approval drawings by ordering a Metal Building System for fabrication or for production, Buyer accepts Seller's interpretation of this PO as being correct and further accepts all responsibility for any discrepancies in the Metal Building System.

3. Seller may initiate or Buyer may request changes to the Metal Building System noted in this PO. If Seller is willing to comply with Buyer's requested changes, Seller will indicate its willingness by preparing a written change order delivered to Buyer using Buyer's contact information set forth in this PO. Buyer expressly agrees that, if such changes result in added costs of any kind, then Buyer shall bear sole responsibility for such additional costs and the fabrication and delivery time will be extended as determined by Seller in its sole discretion. Buyer agrees any change order issued by Seller shall be deemed an amendment to this PO unless, within 3 days following the date of such change order, Buyer delivers its written objections thereto to Seller's President or Executive Vice-President.

4. Either party may cancel this PO by giving written notice to the other party not less than 7 days prior to the cancellation date. In the event of such cancellation, Buyer agrees to pay Seller for any and all costs and damages occasioned thereby, including, but not limited to, Seller's expenses of order processing, engineering, detailing, purchase of material, fabrication and applicable incidental and lost profits damages. Additionally, if Seller believes that Buyer's performance on this PO is substandard or if Seller receives communication from an owner, contractor, subcontractor or any other third party (collectively "third party") regarding Buyer's lack of performance on the project covered by this PO, Buyer agrees and consents to allow Seller to communicate directly with any such third party and further agrees that Seller may immediately cancel this PO, sell the Metal Building System contemplated in this PO to any third party Seller deems necessary and Buyer shall pay Seller any and all damages in accordance with these T&C.

5. As soon as the Metal Building System (or any portion thereof) is ready for delivery to Buyer, Seller will send notification to Buyer and inform Buyer as to the date(s) on which Seller will tender delivery of the Metal Building System to a common carrier for shipment to Buyer. The Metal Building System will be shipped FOB Seller's facilities. Notwithstanding anything to the contrary in this PO or otherwise, title to the Metal Building System sold by Seller to Buyer shall not pass from Seller to Buyer until the Metal Building System is shipped from Seller's facilities by Seller or, when Seller uses a common carrier, when Seller tenders the Metal Building System to a common carrier for delivery to the Buyer. No Metal Building System in the possession of Seller shall be deemed to be identified to any contract between Buyer and Seller and title shall remain with Seller as to all materials and goods until shipped from Seller's facilities or, when Seller uses a common carrier, when tendered to a common carrier. Buyer waives any rights to such goods and agrees not to assert any claim for replevin or similar claim to obtain possession of the Metal Building System. As an accommodation to Buyer, Seller may arrange for shipping of the Metal Building System to Buyer's designated jobsite. Buyer agrees to reimburse Seller for all shipping costs. If Buyer desires to make its own arrangements for shipping, it must notify Seller not less than 30 days prior to the scheduled shipment date. If Buyer fails or refuses to take delivery on the date specified by Seller, then Seller may, in its sole discretion, invoice Buyer for the full price of the Metal Building System or for that portion of the Metal Building System that is ready for delivery. Additionally, Buyer shall reimburse Seller for the cost of storing such materials and transporting the materials to a storage facility, including spotting, switching, drayage, demurrage, transportation and all other costs incurred and will assume the risk of any and all damages or deterioration to the materials while in storage, including but not limited to cost of repainting. Seller expressly reserves the right, in its sole discretion, to divide this PO into separate shipments and invoice such shipments separately. If Buyer delays the detailing, design, fabrication and/or delivery or otherwise delays this PO in any fashion, the purchase price may be adjusted by Seller, in its sole discretion, to reflect any price increase(s) that Seller may put into effect, which Buyer shall immediately pay upon demand.

6. Buyer acknowledges and agrees that it will inspect the goods and/or materials reflected in this PO immediately upon delivery. Seller shall not be liable for any claim of shortage of materials unless notified of such claim by Buyer in writing within 3 days after delivery of the applicable materials. Any claim that materials are defective or nonconforming in any respect or any rejection of materials for being nonconforming under the requirements of this PO must be made in writing within 30 days after delivery of the materials. Buyer must include in the notice the basis of the alleged non-conformity and the description of that portion of the shipment being rejected within the time frames referenced above (which Buyer agrees and stipulates is a reasonable time). Failure to timely furnish any aforementioned written notice will constitute acceptance of the goods and/or materials and will irrevocably bar any claims for which notice was required. On receipt of notification of rejection, Seller may arrange to receive back the materials for shipment and return. However, Seller may have an agent inspect the materials for non-conformity; otherwise such inspection will be made on return to Seller's plant. In the event that such materials are determined to be nonconforming, Seller will ship conforming goods within approximately 30 days, unless Buyer notifies Seller in writing to forego such shipment.

7. Payments under this PO and any other payments due to Seller by Buyer under any other agreement shall be paid to Seller at its corporate office in Houston, Harris County, Texas, its lockbox in Dallas, TX or such other place as directed by Seller in writing. Unless specifically enumerated, the price(s) and/or amount(s) reflected on the PO does not include the cost of performance bonds, payment bonds, or federal, state or local taxes including, but not limited to, excise, privilege, occupation, value added, use or sales taxes. Any of these items or amounts that Seller may be required to pay or collect under existing or future laws, including, without limitation, taxes payable upon or with respect to the sale, purchase, delivery, storage, processing, use, consumption or transportation of any of the Metal Building System and materials covered hereby, shall be for the account of Buyer and shall be included on Seller's invoice(s) to Buyer and shall be due and payable by Buyer in accordance with the terms and conditions herein. If Buyer asserts the purchase of the Metal Building System is exempt from sales tax, Buyer must immediately furnish Seller's Tax Department a valid tax exemption certificate. Buyer agrees to be bound by Seller's determination of the validity of any tax exemption certificate. Seller reserves the right to reject any and all tax exemption certificates presented to Seller after shipment of the Metal Building System. Notwithstanding any other agreement to the contrary, Seller reserves the right, prior to making any shipment, to require from Buyer satisfactory security for the payment of all taxes, costs and charges payable by Buyer. In Seller's sole discretion, all orders shall either be pre-paid or cash payable on delivery. Buyer agrees to furnish Seller with a true, accurate and complete legal description of any property on which the Metal Building System is to be erected, Buyer's entity type(s), state of organization/principal residence, organizational identification number, federal taxpayer identification number(s) and/or social security number(s) and any other information requested by Seller. All credit terms shall be established in the sole discretion of Seller's Credit Department and such credit terms can be revoked by Seller's Credit Department at any time. Seller, in its sole discretion, may invoice Buyer for this sale and all material associated with this sale at the time of order, fabrication or shipment. Except as otherwise agreed in writing, all sums owed by Buyer to Seller with respect to this sale are due and payable upon the date of invoice. If Buyer fails to fulfill the terms of payment applicable hereto, Seller may defer further shipments, and/or in its sole discretion, cancel the unshipped balance of any unfilled orders. Seller may assign its right to receive from Buyer any payments called for hereunder at any time on upon notification to Buyer as to the assignee for receipt of such payments. If Buyer is in default of this PO or any other agreement with Seller and/or Seller's affiliates, Seller shall have the right, in addition to all other rights stated herein, as well as in law or at equity, to withhold delivery and demand adequate assurances of Buyer's ability to perform Buyer's obligations. Buyer specifically agrees with Seller that any invoiced sum that has not been paid by Buyer within 30 days from the date of invoice shall bear interest at a rate of 10%, but in no event greater than the maximum rate for which Seller and Buyer could lawfully contract with respect to such payment under applicable law. Additionally, if an invoice becomes past due, is placed in the hands of an attorney for collection or if this PO is relevant to any other dispute(s) between the parties, in addition to any other claims, defenses, amounts and/or damages asserted or recovered by Seller, Buyer agrees to pay Seller any and all reasonable and necessary attorneys' fees and costs incurred in any such dispute(s) and/or proceeding(s), together with interest, expenses, costs and any other charges.. Costs incurred in the collection of sums include, without limitation, copying and mailing expenses, lien fees, lost management time, inspection expenses and expert witnesses' expenses in addition to taxable costs incurred in litigation. Buyer agrees that all payments with lien release language on the back of any check shall be sent only to the principal office of Seller, in Houston, Harris County, Texas. Buyer agrees that any payment accepted through Seller's lock box with lien release language on the check does not bind Seller to the attempted release. Seller's agent(s) at the lock box who endorses and/or accepts checks for Seller is authorized only to accept unconditional payments, and no action by said agent(s) shall ever give rise to a claim of any authority, apparent or otherwise, beyond that described in this Article. Acceptance of any conditional check, including any lien release language or otherwise at the lock box or otherwise shall only be a partial release for those funds received, and never otherwise.

8. **LIMITATIONS OF WARRANTIES AND DAMAGES** – Upon Seller's receipt of Buyer's payment in full of all outstanding invoices with Seller and subject to the terms and conditions set forth herein, Seller warrants the Metal Building System to Buyer only against failure due to defective material or workmanship for a period of 1 year from date of shipment from Seller's plant. The price quoted for any warranty stated herein is subject to price adjustments due to non-standard roof geometry, details, and non-approved or non-standard roof accessories and/or fixtures. Any price adjustment will be at the sole discretion of Seller. Damage due, whether in whole or in part, to faulty or improper installation, erection or maintenance by others shall NOT be covered. As a condition precedent to the effectiveness of the foregoing warranty, the Metal Building System must be erected promptly after shipment from Seller's plant, without any undue delay and must be erected in strict accordance with Seller's procedures and guidelines as stated in its Erection Manual. Any damage to the Metal Building System not directly attributable to the sole negligence or sole fault of Seller is not covered by this warranty. Additionally, misuse and abuse, lack of proper maintenance, and normal wear and tear to the Metal Building System are not covered by this warranty. **SELLER'S SOLE OBLIGATION AND BUYER'S SOLE AND EXCLUSIVE REMEDY, IN SELLER'S SOLE DISCRETION, WITH RESPECT TO THE FOREGOING WARRANTY IS EXPRESSLY LIMITED TO REPAIR OF DEFECTIVE MATERIALS OR FURNISHING NECESSARY REPLACEMENT MATERIALS FOB SELLER'S FACILITIES, BUT SHALL NOT INCLUDE ANY CHARGES FOR TRANSPORTATION, INSURANCE, OR LABOR OF DISMANTLING AND INSTALLING SUCH MATERIALS.** This warranty is non-assignable and non-transferable. The above warranty does not cover products, accessories, parts or attachments that are not manufactured by Seller. **DISCLAIMER OF IMPLIED WARRANTIES–SELLER MAKES NO WARRANTY OR REPRESENTATION OF ANY KIND WITH RESPECT TO THE METAL BUILDING SYSTEM (EXCEPT FOR THE EXPRESS WARRANTY INCLUDED HEREIN) AND ANY AND ALL IMPLIED WARRANTIES ARE EXPRESSLY EXCLUDED AND DISCLAIMED INCLUDING, WITHOUT LIMITATION, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE AND ANY AND ALL LIABILITY, WARRANTIES AND REPRESENTATIONS REGARDING, PAST, PRESENT OR FUTURE WATER LEAKS OR MOISTURE INTRUSIONS, DAMAGES TO THE SUBJECT BUILDING(S) OR ANY COMPONENTS OR CONTENTS THEREOF, OR ANY INTERIOR SPACE(S) OR PROPERTY THEREIN, INCLUDING CLAIMS PERTAINING TO MOLD, MILDEW AND/OR FUNGI, OR THE INTERRUPTION IN THE USE OF THE SUBJECT BUILDING(S) OR PERSONAL INJURY OR PROPERTY DAMAGE CLAIMS RESULTING FROM THE ALLEGED**

TERMS AND CONDITIONS OF SALE

EXISTENCE OR GROWTH OF MOLD, MILDEW AND/OR FUNGI. LIMITATION OF DAMAGES -- NOTWITHSTANDING ANYTHING ELSE CONTAINED HEREIN TO THE CONTRARY, IT IS EXPRESSLY UNDERSTOOD AND AGREED THAT SELLER'S MAXIMUM AGGREGATE LIABILITY TO BUYER OR ANY THIRD PARTY, INCLUDING, WITHOUT LIMITATION, ANY SUBSEQUENT PURCHASER, WHETHER IN AGREEMENT, UNDER ANY WARRANTY, IN TORT (INCLUDING NEGLIGENCE), IN STRICT LIABILITY OR OTHERWISE SHALL NOT EXCEED THE RETURN OF THE AMOUNT OF THE PURCHASE PRICE ACTUALLY PAID BY BUYER TO SELLER WITH RESPECT TO THE METAL BUILDING SYSTEM. ACCORDINGLY, BUYER AGREES TO ASSUME THE RESPONSIBILITY FOR INSURING AGAINST OR OTHERWISE BEARING THE RISK OF ANY AND ALL GREATER DAMAGES. UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR ANY SPECIAL, INCIDENTAL, LIQUIDATED, CONSEQUENTIAL, EXEMPLARY, PUNITIVE, DELAY, COST OF COVER OR BACK-CHARGE DAMAGES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. UNDER NO CIRCUMSTANCES SHALL SELLER BE LIABLE FOR, INCLUDING, BUT NOT LIMITED TO, PERSONAL INJURY, PROPERTY DAMAGE, DAMAGE TO OR LOSS OF EQUIPMENT, LOST PROFITS OR REVENUE, LABOR COSTS AND EXPENSES, COSTS OF RENTING EQUIPMENT AND OTHER ADDITIONAL EXPENSES, EVEN IF SELLER HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. SELLER WILL NOT BE LIABLE FOR ANY DAMAGES, LOSSES OR EXPENSES AS A RESULT OF BUYER'S (OR ANY OTHER PARTY'S) NEGLIGENCE, WHETHER DEEMED ACTIVE OR PASSIVE AND WHETHER OR NOT ANY SUCH NEGLIGENCE IS THE SOLE OR CONTRIBUTING CAUSE OF ANY SUCH DAMAGE, LOSS OR EXPENSE. BUYER ACKNOWLEDGES THAT THE PRICING OF THE PRODUCTS AND/OR SERVICES TO BE PROVIDED BY SELLER PURSUANT TO THIS PO REFLECTS THE INTENT OF THE PARTIES TO LIMIT SELLER'S LIABILITY AS PROVIDED HEREIN. ANY ACTION, CLAIM OR PROCEEDING RELATING TO THIS PO OR THE TRANSACTIONS CONTEMPLATED BY THIS PO MUST BE BROUGHT WITHIN 2 YEARS AND 1 DAY FOLLOWING THE ACTION OR EVENT GIVING RISE TO SUCH ACTION, CLAIM OR PROCEEDING. BUYER AGREES TO USE ITS BEST EFFORTS TO MITIGATE ANY DAMAGES SUSTAINED BY BUYER, OWNER(S) OR ANY THIRD PARTIES PURSUANT TO OR IN CONNECTION WITH THIS PO. NOTWITHSTANDING THE FOREGOING, THE DISCLAIMER OF WARRANTIES AND/OR THE DISCLAIMER AND/OR LIMITATION OF DAMAGES WILL NOT BE DEEMED TO DISCLAIM LIABILITY SPECIFICALLY IMPOSED ON SELLER BY STATUTE OR REGULATION, TO THE EXTENT SUCH LIABILITY CANNOT BE WAIVED OR DISCLAIMED. SOME JURISDICTIONS DO NOT ALLOW THE DISCLAIMER OF IMPLIED WARRANTIES OR THE EXCLUSION OR LIMITATION OF LIABILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, SO THE DISCLAIMERS OR LIMITATIONS SET FORTH HEREIN MAY NOT FULLY APPLY TO BUYER. TO THE EXTENT THAT THE DISCLAIMERS AND/OR LIMITATIONS SET FORTH HEREIN ARE NOT FULLY ENFORCEABLE UNDER APPLICABLE LAW, BUYER MAY HAVE OTHER LEGAL RIGHTS, WHICH VARY FROM JURISDICTION TO JURISDICTION. Buyer acknowledges its responsibility to determine the intended use of the Metal Building System ordered, its appropriateness for all uses, applications and loads to be encountered, including but not limited to, live load, wind load, snow/ice load, water load, collateral and auxiliary loads, as well as its appropriateness for drainage systems/requirements, and compliance with the requirements of all governing code bodies, statutory and regulatory agencies. Buyer acknowledges that the Seller is only a manufacturer of goods and is in no way responsible for the use, installation and/or application of the goods and/or materials covered hereunder. Buyer acknowledges that it is not unconscionable under the commercial circumstances hereof to limit the award of consequential damages as contemplated by this PO. Except for the obligations of Seller under "Warranty," all responsibility of Seller for the Metal Building System ceases upon delivery thereof by Seller to a common carrier for shipment to Buyer. All claims against the carrier for damage to or loss of any of the Metal Building System shall be made solely by Buyer. Buyer agrees and stipulates that Seller's schedule is approximate only. Without limiting the above, if retrofit materials are supplied hereunder, Seller's shall not be liable for anything that results from the transfer of any loads from one structure to another structure. Buyer acknowledges and stipulates that Seller has not performed any tests of suitability of the materials supplied hereunder and Buyer has not relied on Seller's statement, promises or assurances in regard to such suitability. Buyer further acknowledges, agrees and stipulates that oil-canning of materials shall not be a cause of rejection of materials.

9. ACCEPTANCE OF MATERIALS - Buyer also acknowledges, agrees and stipulates that installation of materials shall unequivocally constitute irrevocable acceptance of materials.

10. FORCE MAJEURE--Under no circumstances shall Seller be liable in any way to Buyer, building owner and/or any other party for water intrusion or the existance of moisture occurring prior to delivery of the Metal Building System or existing thereafter or any possible effects resulting therefrom; delays, failure in performance, or loss or damage due to *force majeure* conditions including, without limitation: fire; flood; epidemics; quarantine; lightening; strike; embargo; explosion; power surge or failure; acts of god; acts of war or terrorism; labor or employment disputes; civil disturbances; acts of civil or military authority; inability to secure materials, fuel, products or transportation facilities; acts or omissions of suppliers; or any other causes beyond Seller's reasonable control.

11. PRICE INCREASES -BUYER AGREES AND STIPULATES THAT, IN THE EVENT SELLER RECEIVES NOTIFICATION OF A PRICE INCREASE FROM ANY OF ITS SUPPLIERS BETWEEN THE DATE OF THIS PO AND THE DATE SCHEDULED FOR DELIVERY OF THE METAL BUILDING SYSTEM, SELLER RESERVES THE RIGHT, IN ITS SOLE DISCRETION AND JUDGMENT, TO INCREASE THE PURCHASE PRICE STATED HEREIN IN AN AMOUNT CORRESPONDING TO SAID PRICE INCREASE(S). MOREOVER, BUYER AGREES AND STIPULATES THAT IT SHALL PAY TO SELLER ANY AND ALL SURCHARGES INCLUDING, BUT NOT LIMITED TO, FUEL SURCHARGES, THAT SELLER MAY PUT INTO EFFECT PRIOR TO DELIVERY OF ALL MATERIALS COVERED BY THIS PO.

12. JURISDICTION, MANDATORY VENUE AND WAIVER OF JURY TRIAL - Except where this PO expressly provides otherwise, the terms of this PO shall be governed in their interpretation by the section titled "Common Industry Practices" from the Low Rise Building System Manual, latest edition, published by the Metal Building Manufacturers Association. In the event that this Manual has no provision, which applies to the subject matter of any dispute over the interpretation of any term or provision of this PO, the interpretation of such term or provision shall be governed by and construed in accordance with the laws of the State of Texas. Further, Buyer acknowledges, stipulates and agrees that this PO was executed, accepted and is to be performed in Harris County, Texas. Buyer acknowledges, stipulates and agrees that (i) any and all claims, actions, proceedings or causes of action relating to the validity, performance, interpretation, and/or enforcement hereof shall only be asserted and/or submitted to a court in Houston, Harris County, Texas and that mandatory venue and jurisdiction for any legal action arising from this PO and/or relating to this PO is only in a court located in Harris County, Texas, (ii) Buyer irrevocably submits itself to the exclusive jurisdiction of the state and federal courts in Houston, Harris County, Texas, (iii) Buyer irrevocably waives, to the fullest extent permitted by law, any objection that it may now or hereafter have to the laying of exclusive venue of any litigation arising out of or in connection with this PO brought in any such court, and (iv) Buyer irrevocably waives any claims that litigation brought in any such court has been brought in an inconvenient forum. **FURTHER, EACH PARTY KNOWINGLY AND VOLUNTARILY AGREES NOT TO ELECT AND EXPRESSLY WAIVES A TRIAL BY JURY WITH RESPECT TO THIS PO AND/OR THE DOCUMENTS CONTEMPLATED HEREBY FOR ANY CLAIM, COUNTERCLAIM OR OTHER ACTION ARISING IN CONNECTION HEREWITH.** The scope of each of the foregoing waivers is intended to be all encompassing. Buyer acknowledges that the foregoing waivers are material inducements to the agreement of Seller to enter into a business relationship with Buyer, and that Seller has already relied on these waivers in entering into this PO. Buyer warrants and represents that it has reviewed these waivers with its legal counsel, and that it knowingly and voluntarily agrees to each such waiver following consultation therewith.

13. ASSUMPTION OF RISK AND INDEMNITY--BUYER ASSUMES ENTIRE RESPONSIBILITY AND LIABILITY FOR ANY CLAIMS OR ACTIONS BASED ON OR ARISING OUT OF INJURIES, INCLUDING DEATH, TO PERSONS OR DAMAGE TO OR DESTRUCTION OF PROPERTY (WHETHER BELONGING TO BUYER, BUILDING OWNER(S), AND/OR ANY THIRD PARTY), SUSTAINED OR ALLEGED TO HAVE BEEN SUSTAINED IN CONNECTION WITH OR TO HAVE ARISEN OUT OF OR INCIDENTAL TO THE PERFORMANCE HEREOF BY BUYER, ITS AGENTS AND EMPLOYEES, AND ITS SUBCONTRACTORS, THEIR AGENTS AND EMPLOYEES, INCLUDING CLAIMS OR ACTIONS BASED IN WHOLE OR IN PART UPON THE ALLEGED NEGLIGENCE OR FAULT OF SELLER, SELLER'S REPRESENTATIVES, OR THE EMPLOYEES, AGENTS, INVITEES, OR LICENSEES THEREOF. BUYER FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD HARMLESS SELLER AND REPRESENTATIVES, AND THE EMPLOYEES, AGENTS, INVITEES AND LICENSEES THEREOF IN RESPECT OF ANY SUCH MATTERS AND AGREES TO DEFEND ANY CLAIM OR SUIT OR ACTION BROUGHT AGAINST SELLER, SELLER'S REPRESENTATIVE, AND THE EMPLOYEES, AGENTS, INVITEES AND LICENSEES THEREOF. BUYER FURTHER AGREES, WARRANTS AND ACKNOWLEDGES THAT IT IS AWARE THAT SELLER MUST INDEMNIFY AND HOLD HARMLESS BUYER AGAINST LOSS, INCLUDING ALL COURT COSTS AND OTHER REASONABLE EXPENSES, REASONABLE ATTORNEYS' FEES, AND ANY REASONABLE DAMAGES, ARISING OUT OF A PRODUCTS LIABILITY ACTION, EXCEPT FOR ANY LOSS CAUSED BY BUYER'S NEGLIGENCE, INTENTIONAL CONDUCT OR OTHER ACT OR OMISSION, SUCH AS NEGLIGENTLY MODIFYING OR ALTERING THE PRODUCT, FOR WHICH BUYER IS INDEPENDENTLY LIABLE, AS REQUIRED BY CHAPTER 82.001 ET SEQ. OF THE TEXAS CIVIL PRACTICE & REMEDIES CODE, AND BUYER KNOWINGLY, INTENTIONALLY AND VOLUNTARILY WAIVES, DISCLAIMS, RELINQUISHES AND FOREVER RELEASES SELLER FROM ANY AND ALL OF ITS OBLIGATIONS TO INDEMNIFY AND HOLD HARMLESS BUYER AGAINST ANY LOSS ARISING OUT OF A PRODUCTS LIABILITY ACTION AS REQUIRED BY CHAPTER 82.001 ET SEQ. OF THE TEXAS CIVIL PRACTICE & REMEDIES CODE.

14. Buyer acknowledges and agrees that Seller is not the Engineer of Record for this or any other project. Accordingly, Seller shall not be required to carry or maintain any Professional Liability, Errors of Omissions or any other similar type insurance policy or coverage. Buyer will, at its sole expense, maintain insurance during the performance of the services covered by this PO and thereafter, including General Liability Insurance with a per occurrence limit of not less than $2,000,000. This insurance will include general liability, products liability and completed operations liability coverages, which will extend for 3 years after the completion of the services. Buyer agrees to name Seller as an additional named insured by endorsement with respect to the coverages required to be maintained by Buyer pursuant hereto and Buyer's insurance coverages shall be primary to and not concurrent with any insurance coverages maintained by Seller. Buyer waives any and all rights of subrogation as against Seller. Buyer also agrees that it shall provide Seller with Waivers of Subrogation by endorsement on its insurance policies with respect to the insurance coverages described herein.

15. WAIVER OF CONSUMER RIGHTS--SELLER AND BUYER WAIVE THEIR RIGHTS UNDER THE DECEPTIVE TRADE PRACTICES-CONSUMER PROTECTION ACT, SECTIONS 17.41 THROUGH 17.63 INCLUSIVE, OF THE TEXAS BUSINESS AND COMMERCE CODE, A LAW THAT GIVES CONSUMERS SPECIAL RIGHTS AND PROTECTIONS. BUYER REPRESENTS THAT IT HAS CONSULTED WITH AN ATTORNEY OF ITS OWN SELECTION AND, AFTER THAT CONSULTATION, VOLUNTARILY CONSENTS TO THIS WAIVER. The waiver set forth herein shall expressly survive the termination of this PO and the transactions contemplated herein. Each of Seller and Buyer has waived its rights pursuant to the Deceptive Trade Practices-Consumer Protection Act without duress or coercion and fully acknowledges and understands the effect of the waiver.

16. If any provision of this PO is found to be invalid or unenforceable in any jurisdiction, such provision shall be fully severable in such jurisdiction, and this PO shall be construed and enforced as if in such jurisdiction such provision had never comprised a part hereof. In such event, the remaining provisions of this PO shall remain in full force and effect. The terms of this PO are intended by the parties as a final expression of their agreement containing all other understandings between the parties relative to the Metal Building System referenced herein.

DATE: March 8, 2012

HERITAGE BUILDING SYSTEMS®
Established 1979

QUOTE #: 030812MS

A Company of NCI Building Systems, Inc.
2612 GRIBBLE ST. / N. Little Rock, AR 72114
800-643-5555 / FAX: 501-945-2255

JOB-SITE DIRECTIONS

Please print detailed job-site driving directions on the lines provided below.

Jobsite Address: _____ City _____ State: _____ Zip Code: _____
Contact Name: _____ Contact #: _____ IN or OUT of City Limits _____

ALTERNATES ARE NOT INCLUDED IN BUILDING PRICING AS SHOWN BELOW		PRICE	ACCEPTED	
ALT #1		$ .00	YES ☐	NO ☐
ALT #2		$ .00	YES ☐	NO ☐
ALT #3		$ .00	YES ☐	NO ☐
ALT #4		$ .00	YES ☐	NO ☐
ALT #5		$ .00	YES ☐	NO ☐

NOTES:

ACCEPTANCE OF CONTRACT

§§ YOUR SIGNATURE AND ACCEPTANCE SHALL CONFIRM THAT YOU ARE SOLELY RESPONSIBLE FOR VERIFYING THE APPLICABLE BUILDING CODE(S) AND LOADS REQUIRED BY YOUR LOCAL BUILDING DEPARTMENT. ANY CHANGES IN BUILDING CODES AND/OR LOADS WILL RESULT IN AN INCREASE IN THE AGREED BUILDING COST.

BUYER DECLARES THAT CODES/LOADS HAVE BEEN CONFIRMED WITH THE BUILDING DEPT. **YES:** _____ (Initial) N/A: _____

THESE INCREASES CAN RANGE FROM INCREASES IN MATERIAL COSTS TO REENGINEERING FEES. CHANGES WILL ALSO RESULT IN DELAYS OF DRAWINGS AND THE ACTUAL DELIVERY OF THE BUILDING MATERIALS. BUYER HEREBY AGREES AND STIPULATES THAT IT SHALL PAY TO SELLER IMMEDIATELY UPON DEMAND ANY AND ALL APPLICABLE TAXES ASSOCIATED WITH THIS PURCHASE ORDER. ANY AND ALL APPLICABLE TAXES ASSOCIATED WITH THIS PURCHASE ORDER SHALL BE CALCULATED BY SELLER ON OR ABOUT THE TIME OF MANUFACTURE, WHEREUPON, BUYER AGREES TO PAY SAID TAXES IMMEDIATELY UPON DEMAND.

WE PROPOSE TO FURNISH MATERIALS COMPLETE IN ACCORDANCE WITH THE ABOVE SPECIFICATIONS FOR THE SUM OF:

PLEASE CAREFULLY CHECK AND VERIFY THIS PURCHASE ORDER FOR COMPLETENESS AND ACCURACY. PLEASE REVIEW THE "HELP TOPICS" @ www.heritagebuildings.com FOR CLARIFICATION TO THE SPEC'S, LOADS AND DEFLECTIONS OR REQUEST A COPY IF WEB ACCESS IS NOT AVAILABLE.

THE PRICES, SPECIFICATIONS, TERMS AND CONDITIONS AS STATED IN THIS CONTRACT ARE HEREBY ACCEPTED. YOU ARE AUTHORIZED TO DO THE WORK SPECIFIED.

BALANCE OF PAYMENT WILL BE C.O.D. PAID BY CASHIERS CHECK ON DELIVERY. ANY APPLICABLE SALES OR USE TAX REQUIRED BY YOUR STATE WILL BE ADDED PRIOR TO DELIVERY.

AGREED TO THIS _____DAY OF_____, 20_____.

BUYER: (Important - See §§ Above & Initial In Space Provided)

BY: X _____

BUILDING (w/o Alternates):	$88,683.02
FREIGHT:	PAID
CONTRACT PRICE:	$88,683.02
DEPOSIT:	$17,736.60
BALANCE:	$70,946.42

THE ABOVE REFERENCED PRICE DOES NOT INCLUDE TAXES OR ALTERNATES. ANY AND ALL APPLICABLE TAXES SHALL BE CALCULATED AND ADDED TO THE ABOVE REFERENCED AMOUNT IN ACCORDANCE WITH THE TERMS AND CONDITIONS OF THIS PURCHASE ORDER.
THIS CONTRACT IS VALID ONLY WHEN SIGNED AND ACCEPTED BY AN OFFICER OF HERITAGE BUILDING SYSTEMS.

CONTRACT ACCEPTED AND ENTERED ON THIS _____

DAY OF _____, 20____.
HERITAGE BUILDING SYSTEMS

BY:_____
TITLE:

PRICE SUBJECT TO CHANGE – CONTACT HERITAGE PRIOR TO PLACING ORDER TO VERIFY PRICE