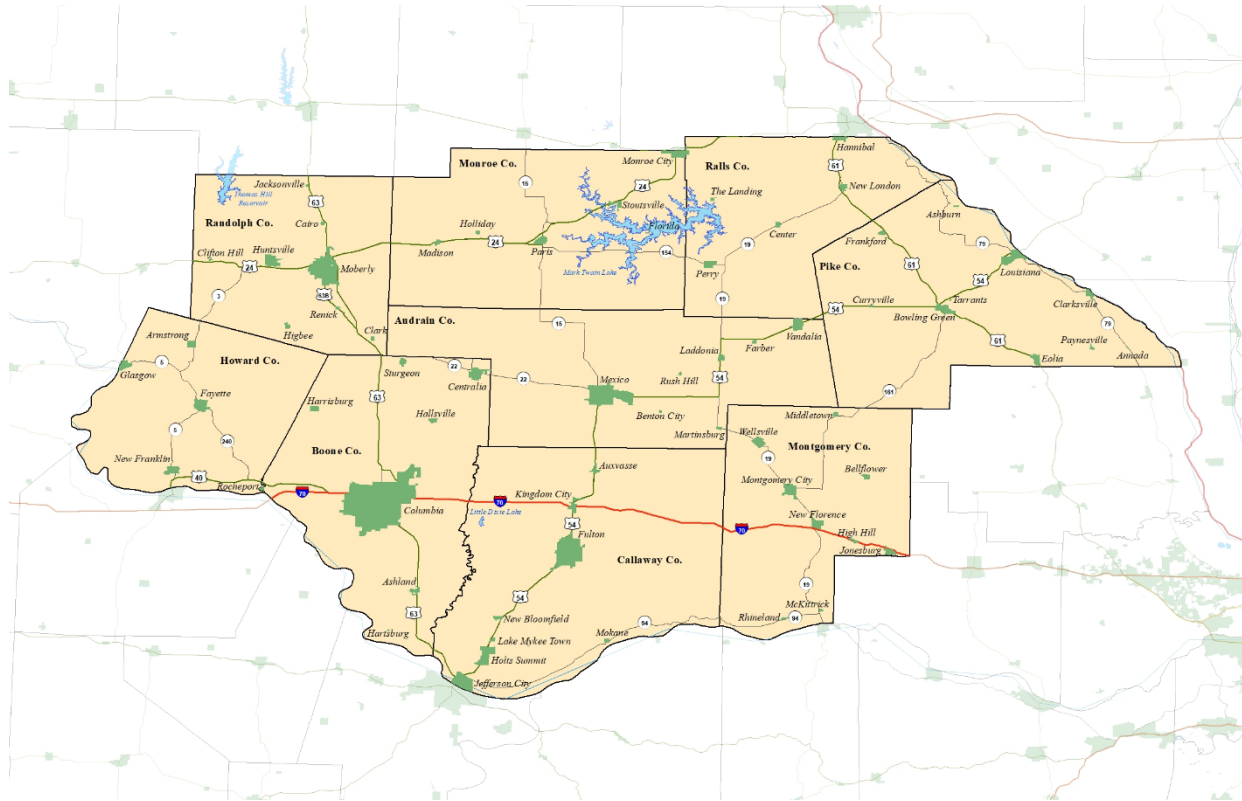


# Mexico/Audrain County Labor Basin Labor Availability Analysis – 2020

Audrain • Boone • Callaway • Howard  
Monroe • Montgomery • Pike • Ralls • Randolph



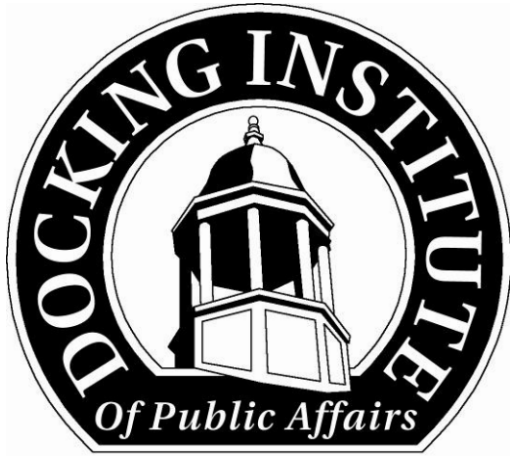
Prepared For

**Audrain County and the City of Mexico**

By

**The Docking Institute of Public Affairs**

**Copyright © 2020**  
All Rights Reserved



Fort Hays State University  
600 Park Street  
Hays, Kansas 67601-4099  
Telephone: (785) 628-4197  
FAX: (785) 628-4188  
[www.fhsu.edu/docking](http://www.fhsu.edu/docking)

Brett Zollinger, Ph.D.  
Director

Jian Sun, Ph.D.  
Assistant Director

Michael S. Walker, MS  
Research Scholar

Luis Montelongo, MBA  
Research Coordinator

Lynette Ottley, BA  
Administrative Specialist

**Mission:**

To Facilitate Effective Public Policy Decision-Making.

The staff of the Docking Institute of Public Affairs and its University Center for Survey Research are dedicated to serving the people of Kansas and surrounding states.

# Mexico/Audrain County Labor Basin Labor Availability Analysis - 2020

## **Prepared By:**

Michael S. Walker, M.S.  
Research Scholar  
Docking Institute of Public Affairs

## **Prepared For:**

Audrain County and the City of Mexico

## Table of Contents

List of Maps.....	i
List of Figures.....	ii
List of Tables.....	iii
Executive Summary .....	4
The Mexico/Audrain County Labor Basin.....	5
<i>Components of the Report</i> .....	6
The Mexico/Audrain County Labor Basin’s Available Labor Pool.....	7
Current Skills and Work Experiences .....	11
Educational Experience and Job Satisfaction .....	15
Considerations for Employment .....	19
Wage Demands of Available Labor Pool.....	22
Underemployed Available Labor Pool Workers.....	23
Methods .....	26
<i>Explaining the Civilian Labor Force</i> .....	26
<i>Defining the Available Labor Pool</i> .....	26
<i>Description of Survey Research Methods</i> .....	27
Glossary of Terms.....	28
Appendix: Hourly Wage to Annual Salary Conversion Chart.....	29

## List of Maps

Map 1: Mexico/Audrain County Labor Basin .....	5
Map 2: Percent of Total Available Labor in Basin by Zip Code .....	8

## List of Figures

Figure 1: The Available Labor Pool for the Mexico/Audrain County Labor Basin .....	7
Figure 2: Occupational Sectors of Available Labor (Employed Only).....	10
Figure 3: Current Work Experience Plus Previous Work or Training Experience.....	12
Figure 4: Work Experience / Willing to Work in Field .....	13
Figure 5: Work Experience in Distribution Center or Warehouse.....	14
Figure 6: Work Experience in Manufacturing or Processing .....	14
Figure 7: Undergraduate College Major .....	15
Figure 8: Community College Experience .....	16
Figure 9: Community College Area of Study .....	16
Figure 10: Job Satisfaction Among Available Labor Pool Workers .....	17
Figure 11: Considerations for Employment .....	19
Figure 12: Available Labor by Commute Minutes .....	20
Figure 13: Benefits Very Important to Change Employment.....	21
Figure 14: Available Labor by Hourly Wage .....	22
Figure 15: Employed and Unemployed Members of the Available Labor Pool .....	23
Figure 16: Underemployed Workers.....	23
Figure 17: Reasons for Underemployment (n=17,822).....	24
Figure 18: Occupational Sectors of Underemployed Workers .....	25
Figure 19: Seeking New Employment to Address Underemployment.....	25

## **List of Tables**

Table 1: Age, Gender, and Education Levels of Available Labor Pool.....	9
Table 2: Major Occupational Categories of Available Labor .....	10
Table 3: Current Work Experience Plus Previous Work or Training Experience .....	11
Table 4: Job Satisfaction Among Workers: Pool and Non-Pool Members .....	18
Table 5: Desired Benefits and Current Benefits Offered.....	21
Table 6: Highest Level of Education Achieved Among Underemployed .....	24

## Mexico/Audrain County Labor Basin Labor Availability Analysis

### Executive Summary

The Mexico/Audrain County Labor Basin includes Audrain, Boone, Callaway, Howard, Monroe, Montgomery, Pike, Ralls, and Randolph counties in Missouri. The purpose of this report is to assess the “Available Labor Pool” in this labor basin. The “Available Labor Pool” represents those who indicate that they are looking for employment or would consider changing their jobs for the right employment opportunity.

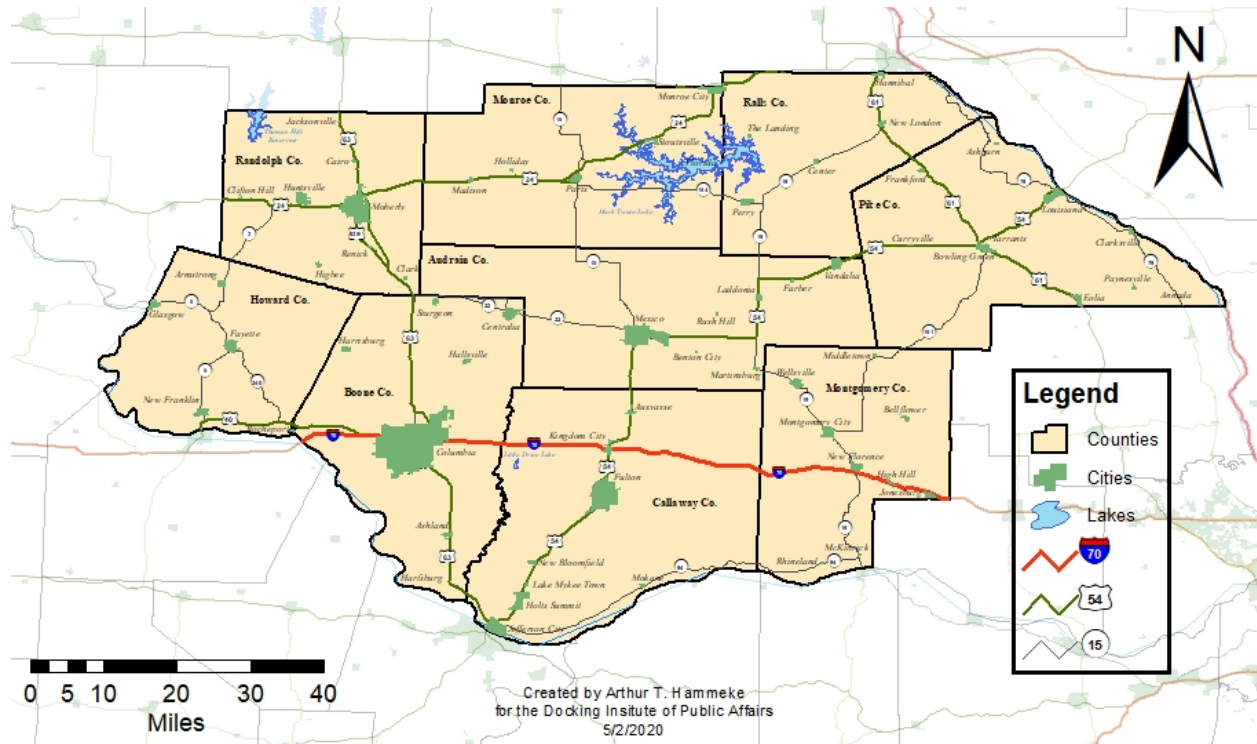
The Docking Institute’s independent analysis of this labor basin shows that:

- The population of the Mexico/Audrain County Labor Basin is 334,149. About 32% of the population (or 106,424 individuals) is considered to be part of the Available Labor Pool.
- Of the non-working members of the Available Labor Pool, an estimated 6,730 (6.3%) are currently looking for work and 16,708 (15.7%) are interested in working for the right opportunities. Of the working members of the Available Labor Pool, 22,166 (20.8%) are currently looking for work, while 60,820 (57.1%) are interested in a different job given the right opportunities.
- More than four-fifths (82.2%) of the Available Labor Pool has at least some college experience and 96.5% has at least a high school diploma. The average age for members of the Pool is about 45 years old, and women make up slightly less than half (46.2%) of the Pool.
- An estimated 19,036 members of the Available Labor Pool are currently employed as general laborers, while an additional 7,830 work in government services or technical/high skill blue-collar occupations. An estimated 38,702 members of the Pool work in service sector jobs, while 16,550 work in professional white-collar jobs. Fewer (24,306), are not currently employed.
- About 83% of the Available Labor Pool indicates that they are “willing to work outside of their primary field of employment for a new or different employment opportunity.”
- About two-fifths (41.9%) of the members of the Available Labor Pool will commute up to 45 minutes, one way, for an employment opportunity, while 80.5% will commute up to 30 minutes for employment.
- The five most important benefits are, in order, good salary or hourly pay, good retirement benefits, on-the-job (OTJ) or paid training, good health benefits, and good vacation benefits.
- An estimated 9,472 members (8%) of the Available Labor Pool are interested in a new job at \$10 an hour, 31,289 (29%) are available at \$15 an hour, and 54,276 (51%) are available at \$20 an hour.
- Of the 82,116 members in the subset of *employed members* of the Available Labor Pool, 17,882 (22%) consider themselves underemployed. The most selected reason for underemployment status is that education levels exceed those required for the job.

## The Mexico/Audrain County Labor Basin

The Mexico/Audrain County Labor Basin includes nine counties in central Missouri (see Map 1 below).

Map 1: Mexico/Audrain County Labor Basin



The Mexico/Audrain County Labor Basin has a total population of approximately 334,149, and a Civilian Labor Force of 168,422. The total number of employed is 163,733 and the average unemployment rate was 2.78% at the time of this study.

The Docking Institute's analysis suggests that the basin contains an Available Labor Pool of 106,424 individuals. The Available Labor Pool is composed of workers categorized as either 1) currently not working *and* looking for full-time employment, 2) not working *but* interested in full-time employment, 3) currently working (full- or part-time) *and* looking for other full-time employment, and 4) currently employed *but* interested in different full-time employment for the right opportunities. Please see the Methods section – page 26 – for more information about the Institute's Available Labor Pool analysis methodology and the survey research methods used for this study.



## ***Components of the Report***

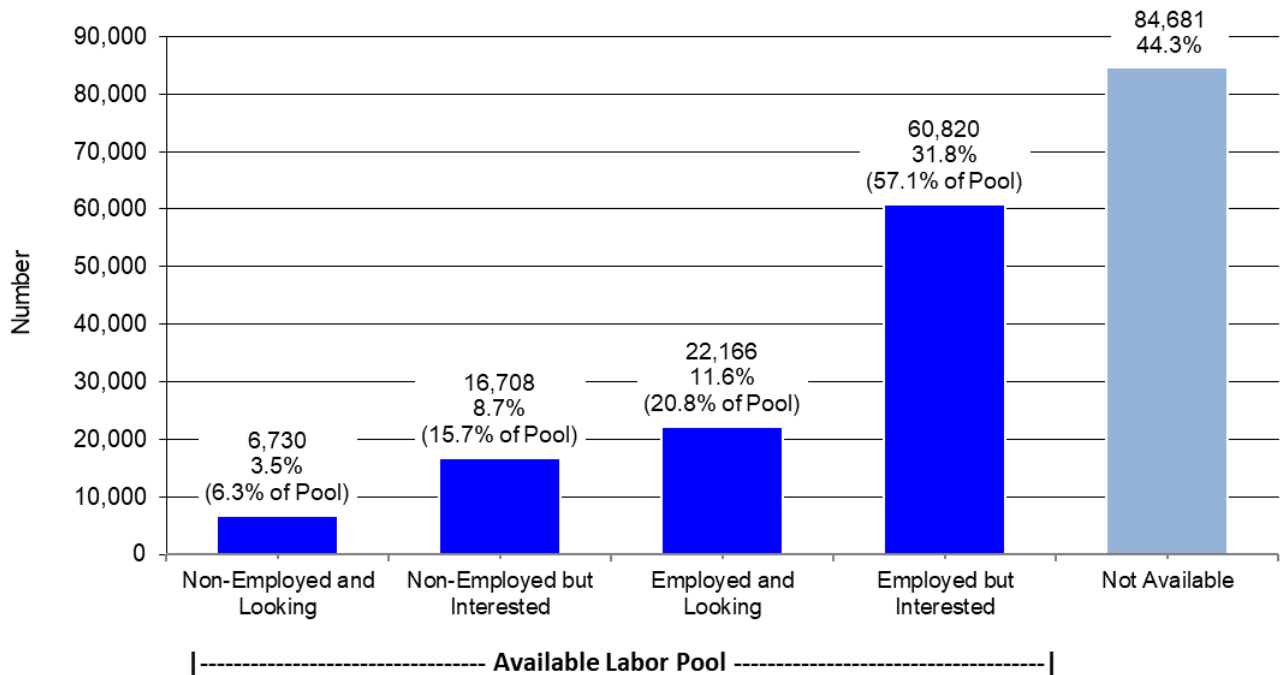
The majority of this report assesses the characteristics of the Available Labor Pool in the Mexico/Audrain County Labor Basin by answering the following questions:

- What proportion of the labor force – employed, unemployed, homemaker, student, retired and disabled – are interested in a new employment opportunity?
- What skills and education levels do those who would consider a new employment opportunity have?
- What types of jobs have these workers and potential workers had in the past?
- What types of considerations (pay, benefits, commute time) shape their decision-making?
- What proportion of the Available Labor Pool is willing to change fields of employment?
- What work shifts are Available Labor Pool members willing to work?
- What is the level of job satisfaction among the Available Labor Pool members?
- How many Available Labor Pool members are underemployed?

## The Mexico/Audrain County Labor Basin’s Available Labor Pool

It is estimated that 6,730 (6.3% members of the Available Labor Pool) are non-employed<sup>1</sup> and looking for employment, while 16,708 (15.7%) are non-employed but interested in a job for the right opportunities. In addition, 22,166 (20.8%) members of the Pool are employed and currently looking for different employment, while 60,820 (57.1%) are employed but interested in new employment for the right opportunities.

Figure 1: The Available Labor Pool for the Mexico/Audrain County Labor Basin



The Available Labor Pool is composed of workers categorized as either 1) currently not employed and looking for full-time employment, 2) currently not employed *but* interested in full-time employment, 3) currently employed *and* looking for full-time employment, 4) currently employed *but* interested in other full-time employment for the *right opportunities*.

<sup>1</sup> The terms “non-employed,” “not employed” and “non-working” refer to officially unemployed members of the Civilian Labor Force *and* any non-employed/non-working full-time students, homemakers, retirees, and disabled individuals that indicate they are available for employment.

Map 2 shows how each Zip Code area compares to all other Zip Code areas in terms of the percent of total available labor in the Mexico/Audrain County Labor Basin. The map shows:

- Ten percent or more of the entire labor basin's Available Labor Pool is located in Zip Codes areas within Boone and Callaway counties. (See the purple area on the map.)
- Between 5% and 9.99% of the entire labor basin's Available Labor Pool is located in Zip Code areas within Boone County. (See the red area on the map.)
- Zip Code areas primarily in Audrain, Boone, Callaway, Pike, and Randolph counties contain 1% to 4.99% of the basin's Available Labor Pool. (See the orange areas on the map.)
- Zip Code areas in every county contain up to .99% of the Pool. (See the yellow and cream areas on the map.)

Map 2: Percent of Total Available Labor in Basin by Zip Code

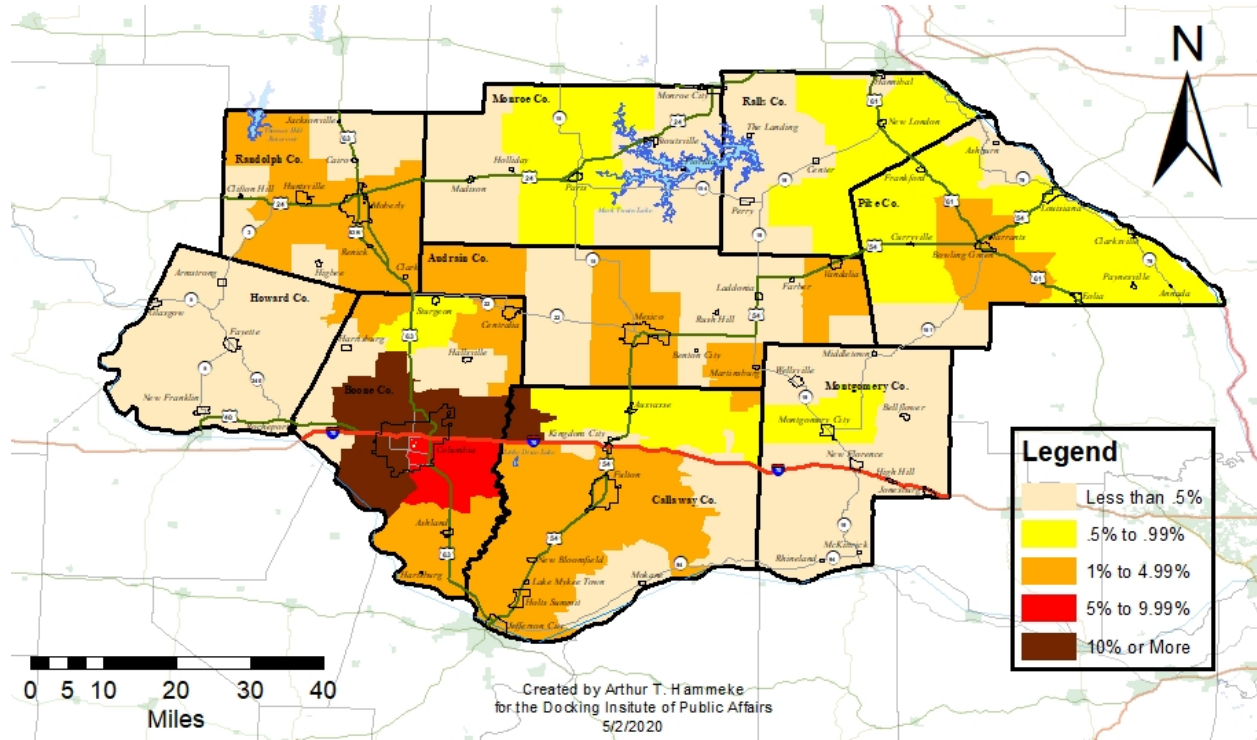


Table 1 shows the gender, age and education levels of the 106,424-member Available Labor Pool. Slightly less than half (46.2%) of the Pool is women, and the average age is about 45 years old. Most (96.5%) have at least a high school diploma, 82.2% have **at least** some college education, 52.3% have **at least** a bachelor's degree. About a quarter (25.4%) speak Spanish, but most of these Pool members speak "only a little" (72.6%).

*Table 1: Age, Gender, and Education Levels of Available Labor Pool*

<b>Age Information</b>		Age in 2020		
Range		19 to 68		
Mean Average		45		
Median Average		46		
<b>Gender</b>		Number	Percent	
Female		49,119	46.2	
Male		57,305	53.8	
Total		106,424	100	
<b>Highest Level of Education Achieved</b>		Number	Percent	Cumulative Percent
Doctoral Degree		4,462	4.2	4.2
Masters Degree		15,000	14.1	18.3
Bachelors Degree		36,180	34.0	52.3
Associates Degree		14,206	13.3	65.6
Some College (including current students)		17,623	16.6	82.2
High School Diploma		15,182	14.3	96.5
Less HS Diploma		3,772	3.5	100
Total		106,424	100	
<b>"Do you speak Spanish?"</b>		Number	Percent	
"Yes"		27,067	25.4	} These percentages represent portions of 25.4%
<i>Speak Very Well</i>		2,255	8.3	
<i>Speak Fairly Well</i>		5,149	19.0	
<i>Speak Only a Little</i>		19,663	72.6	
			100	

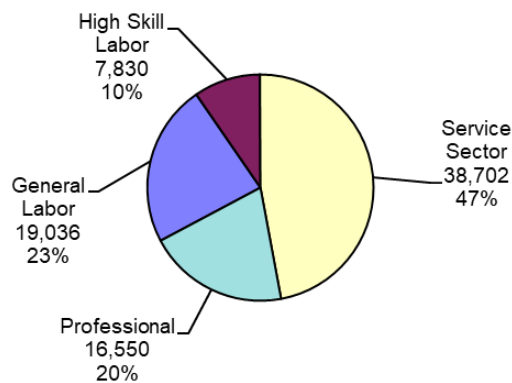
Table 2 shows the various occupational categories of the 106,424-member Available Labor Pool. General labor occupations represent 17.9% of the entire Available Labor Pool, while high skill blue-collar jobs make up 7.4%. Traditional service-related occupations represent 36.4% of the Available Labor Pool, while professional occupations represent 15.6% of the Available Labor Pool. Non-employed members of the Pool make up less than a quarter (22.8%) of the total.

Table 2: Major Occupational Categories of Available Labor

	Number	Percent	Years at Job	
			Mean	Median
General Labor/Delivery	13,883	13.0	13.7	7.5
Manufacturing/Maintenance/Trucking	5,152	4.8	16.1	8.2
<b>Total General Labor</b>	<b>19,036</b>	<b>17.9</b>	<b>14.9</b>	<b>7.9</b>
Mechanic/Welder/Comp Tech	4,429	4.2	15.6	11.5
Crew Management/Protection Services	3,401	3.2	16.1	16.0
<b>Total High Skill Labor</b>	<b>7,830</b>	<b>7.4</b>	<b>15.9</b>	<b>13.8</b>
Customer Service	12,690	11.9	8.8	5.0
Clerical	949	0.9	14.0	17.0
Office or Dept Manager	12,306	11.6	7.8	5.0
Health Aid/Nurse	6,831	6.4	13.2	6.3
Education Aid/Teacher	5,927	5.6	13.8	12.8
<b>Total Service Sector</b>	<b>38,702</b>	<b>36.4</b>	<b>11.5</b>	<b>9.2</b>
Exec Management	4,241	4.0	7.4	5.0
Accounting/Engineering	6,241	5.9	6.1	5.0
Doctor/Professor/Attorney	3,954	3.7	17.1	17.7
Writer/Artist/Musician	2,114	2.0	7.6	8.1
<b>Total Professional Sector</b>	<b>16,550</b>	<b>15.6</b>	<b>9.6</b>	<b>9.0</b>
Homemaker/Student/Unemployed	10,025	9.4	n/a	n/a
Retired/Disabled	14,283	13.4	n/a	n/a
<b>Total Non-Employed</b>	<b>24,308</b>	<b>22.8</b>		
<b>Total</b>	<b>106,424</b>	<b>100</b>		

Figure 2 shows the occupational sectors of the *employed members* of the Available Labor Pool only. The *percentages* shown in Figure 2 differ from those presented in Table 2 because the table includes non-employed Available Labor Pool members, while the figure does not.

Figure 2: Occupational Sectors of Available Labor (Employed Only)



## Current Skills and Work Experiences

To gain perspective on the types of workers that are available for new and/or different employment in the Mexico/Audrain County Labor Basin, survey respondents were asked questions assessing work skills and previous work experience.

Table 3 and Figure 3 (next page) show the current employment status and previous work or training experience of Available Labor Pool members. Table 3 shows the number of workers currently employed in various job categories, as well as the number of workers and non-workers that have previous work or training experience in those same job categories. The table also shows the sum of working Available Labor Pool members currently employed in a job category *plus* those that indicate previous training or experience in that particular field.

For example, 8,716 members of the Pool are currently employed as general labor, construction, cleaners, and similar positions. An additional 2,307 Pool members (employed and non-employed) had previous employment experience or training in one of those jobs, for a total of 11,022 individuals. (The total shown differs from the sum due to rounding error.)

*Table 3: Current Work Experience Plus Previous Work or Training Experience*

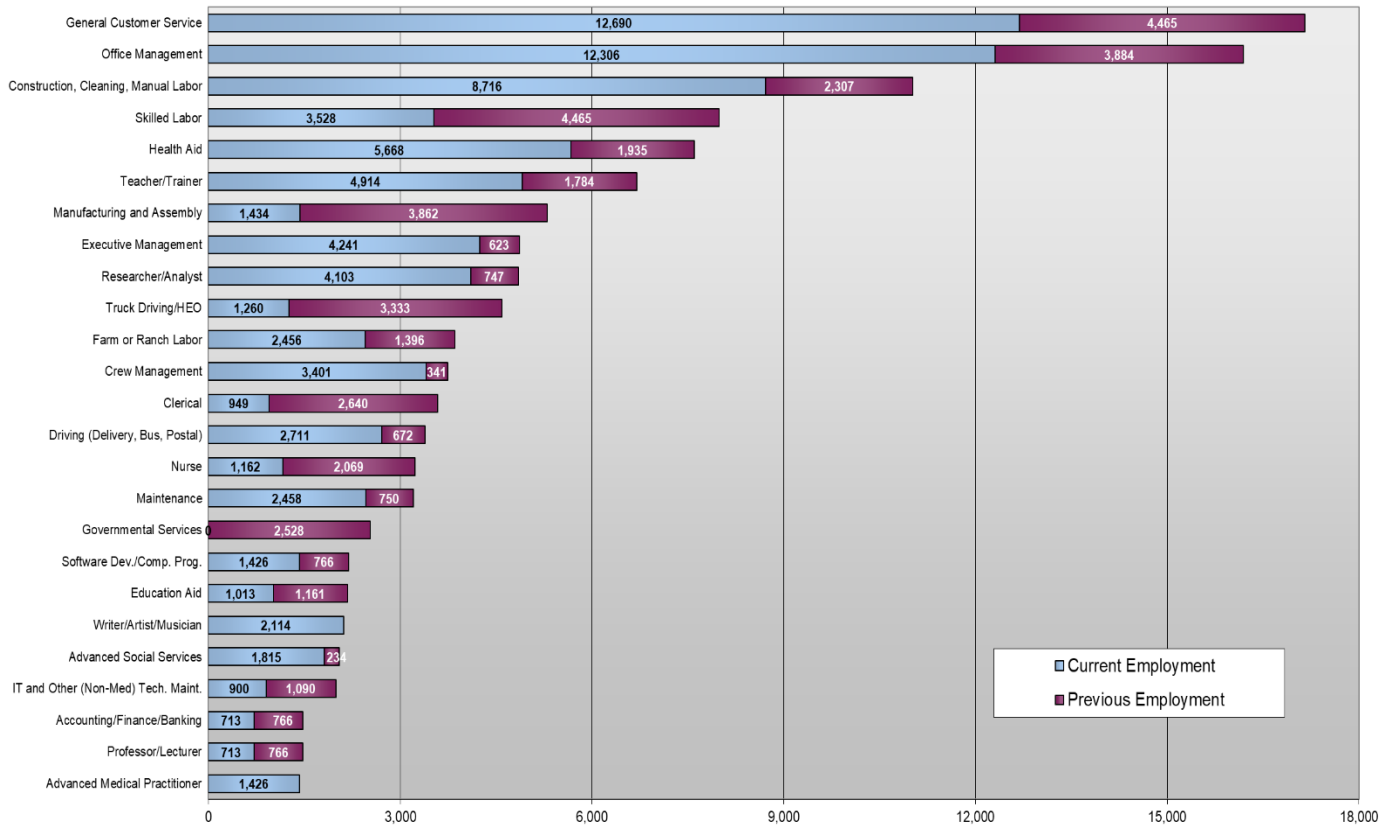
	Current Employment* Number +	Previous Work/Training Number =	Current plus Previous Work or Training** Number
<b>Working with Hands</b>			
Construction, Cleaning, Manual Labor	8,716	2,307	11,022
Farm or Ranch Labor	2,456	1,396	3,852
Manufacturing and Assembly	1,434	3,862	5,295
Maintenance	2,458	750	3,208
Driving (Delivery, Bus, Postal)	2,711	672	3,384
Truck Driving/HEO	1,260	3,333	4,593
Skilled Labor	3,528	4,465	7,993
Crew Management	3,401	341	3,742
<b>Working with People</b>			
General Customer Service	12,690	4,465	17,155
Office Management	12,306	3,884	16,190
Governmental Services	0	2,528	2,528
Executive Management	4,241	623	4,865
Advanced Social Services	1,815	234	2,049
<b>Working with Numbers</b>			
Clerical	949	2,640	3,589
Accounting/Finance/Banking	713	766	1,478
Researcher/Analyst	4,103	747	4,850
<b>Working with Technology</b>			
IT and Other (Non-Med) Tech. Maint.	900	1,090	1,991
Software Dev./Comp. Prog.	1,426	766	2,191
Engineer/Designer	0	382	382
<b>Providing Health Services</b>			
Health Aid	5,668	1,935	7,603
Nurse	1,162	2,069	3,231
Advanced Medical Practitioner	1,426	0	1,426
<b>Providing Educational Services</b>			
Education Aid	1,013	1,161	2,174
Teacher/Trainer	4,914	1,784	6,698
Professor/Lecturer	713	766	1,478
<b>Creative Arts</b>			
Writer/Artist/Musician	2,114	0	2,114
<b>Total</b>	<b>82,116</b>	<b>42,965</b>	<b>125,081</b>

\* Retired, disabled, non-working students, homemakers are not included.

\*\* An individual member of the Pool is counted only once within each employment category. If an individual's previous job is the same as the current job, he or she is not counted in the Previous Job Category.

Figure 3 shows the same information as that presented in Table 3, but in graphic format and reordered. Many Available Labor Pool members report current work experience or previous work/training as front desk clerks, retail sales positions, receptionists and other jobs classified as “general customer service workers.” There are 12,690 working Pool members currently employed in this category and 4,465 previously employed/trained in this category, for a total of 17,155 individuals (total not shown in figure).

Figure 3: Current Work Experience Plus Previous Work or Training Experience



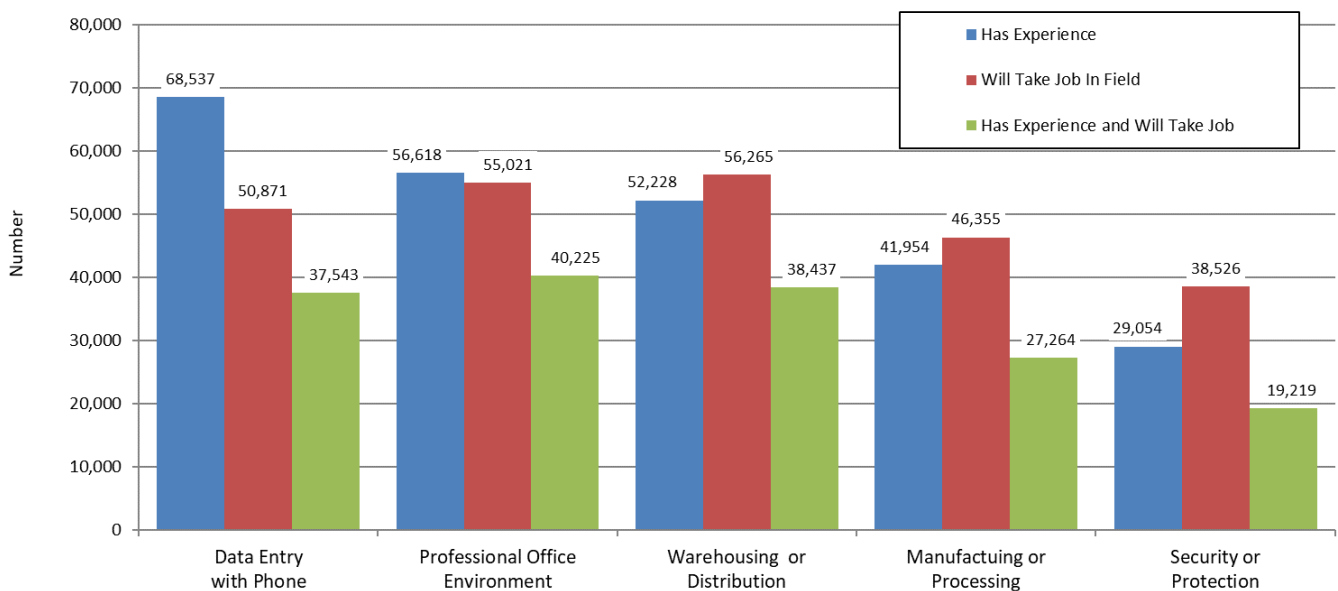
In addition to collecting data about current employment status and previous work/training experience through a series of “open-ended” survey questions (the results of which are shown in the previous table and figure), respondents were asked about the five specific employment areas listed in Figure 4. Respondents were first asked if they had training or work experience in a specific field and then if they would take a job in that field regardless of their prior training or experience.

The figure shows that an estimated 68,537 Pool members report receiving training and/or having experience in data entry with telephone operation, while fewer (50,871 individuals) would consider employment in that field. An estimated 56,618 members of the Pool have training and/or experience in a professional office environment, while slightly fewer (55,021 individuals) would take a job in that field.

An estimated 52,228 members of the Pool have training or experience working in a distribution center or warehouse, while 56,265 would consider a job in that field. An estimated 41,954 have experience working in a manufacturing plant or processing center, while 46,355 would take a job in that field. Finally, 29,054 have training or experience in protection or security services, while 38,526 would consider employment in that field.

The third column shows the estimated number that have experience or training in a field **and** are willing to work in that field again.

Figure 4: Work Experience / Willing to Work in Field





Survey respondents indicating training or experience in distribution/warehousing or in manufacturing/processing were asked additional questions to assess the type of work they performed at those jobs.

Figures 5 and 6 show the responses to those questions. The figures show that more than a third (35%) of those indicating distribution/warehousing experience moved materials or loaded trucks. Additionally, two-fifths (40%) of those indicating training or experience in manufacturing/processing worked in or trained in procession, fabrication or assembly.

Figure 5: Work Experience in Distribution Center or Warehouse

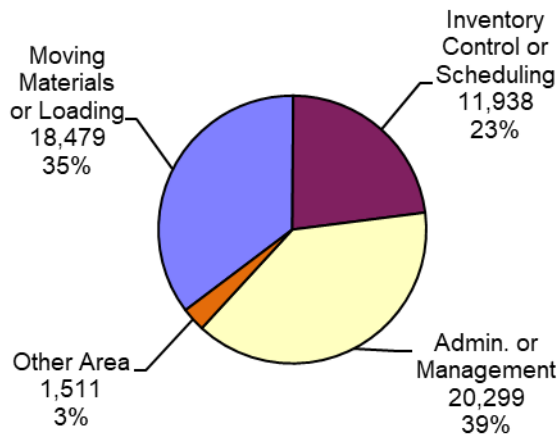
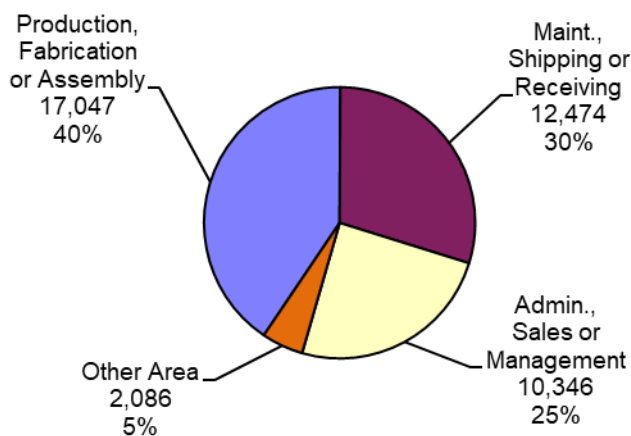


Figure 6: Work Experience in Manufacturing or Processing



## Educational Experience and Job Satisfaction

Respondents that had completed at least some college or are currently enrolled in a community college, college, or university were asked to provide their major area of study. Answer options included:

**Social Sciences:** Sociology, Psychology, Anthropology, Politics and Social Work.

**Biological Sciences and Health:** Biology, Agriculture, Nursing, Pre-med, Pre-vet and Human Performance.

**Physical Sciences and Engineering:** Physics, Geology, Chemistry and Engineering.

**Business and Economics:** Management, Accounting, Finance, Marketing and Economics.

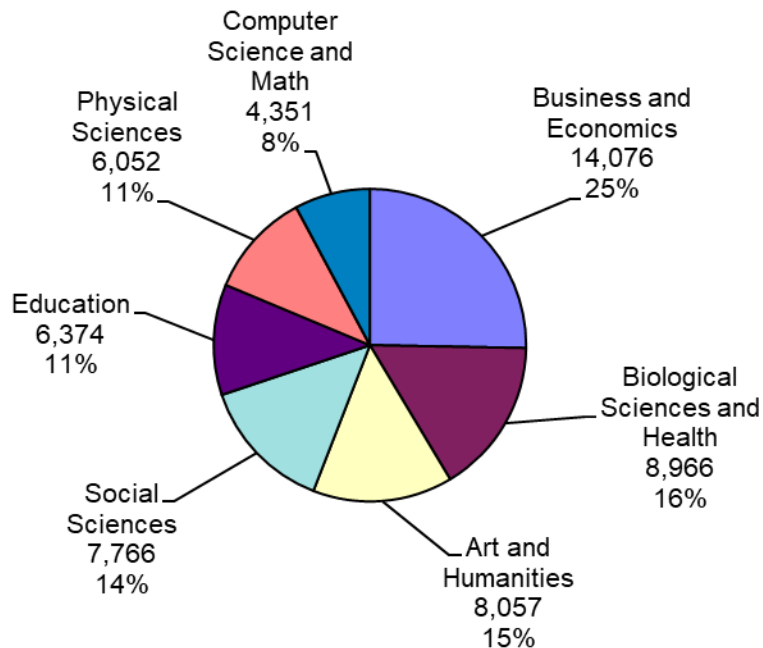
**Education:** Elementary and Secondary Teaching.

**Computer Science and Math:** Computer Programming or Technology, Networking, Web Design and Math.

**Arts and Humanities:** Art, Music, History, Philosophy and Languages.

Figure 7 shows that the largest group of Available Labor Pool members indicate a major in business and economics (25%). Also shown are Biological sciences (16%), arts and humanities (15%), social sciences (14%), education (11%), physical sciences (11%), and computer science and math (8%).

Figure 7: Undergraduate College Major



Survey respondents with at least some college education were asked if they are attending or have attended a technical or community college. Figure 8 shows that 14% of these respondents have technical or community college experience.

Figure 8: Community College Experience

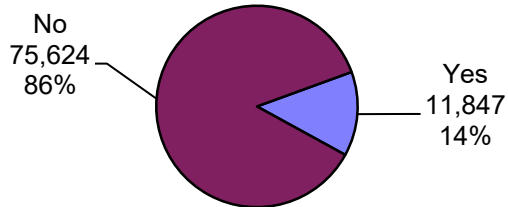


Figure 9 shows the area of study for community college students. A fifth (16%) report studying nursing/health related subjects, while 13% report studying automotive technology, and 10% report studying information or computer technology. Less than 10% are studying (or have studied) manufacturing technology, truck driving, cosmetology, and office skills.

Figure 9: Community College Area of Study

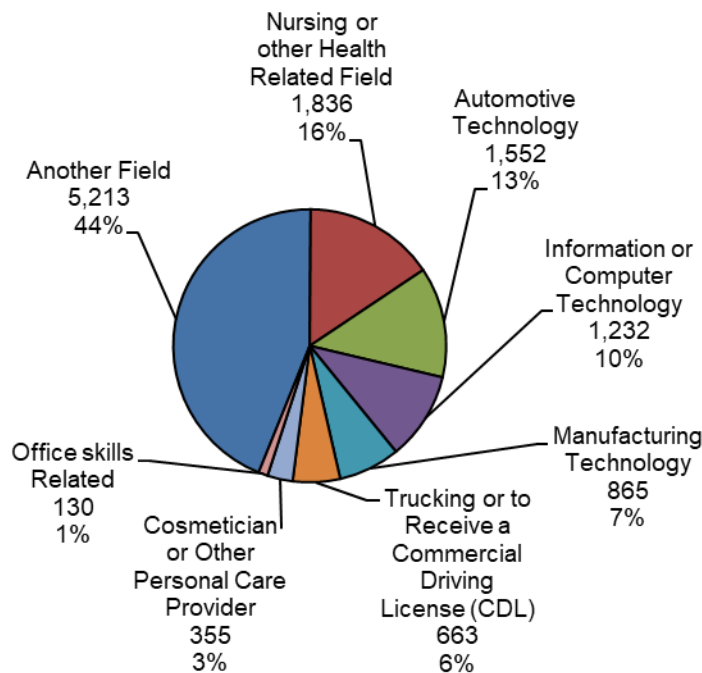


Figure 10 and Table 4 show responses to questions regarding job satisfaction. The figure and table report responses from *working survey respondents* only. The figure shows, for example, about 29% of the working Available Labor Pool respondents “strongly agree” with a statement suggesting that they “enjoy the things I do,” while 65% “agree” with that statement.

In general, the figure shows that Available Labor Pool members are generally satisfied with their work and their work environments but are simply looking for and/or are available for new employment. Only about 54%, however, feel that they have a “fair chance at promotion” to another position.

*Figure 10: Job Satisfaction Among Available Labor Pool Workers*

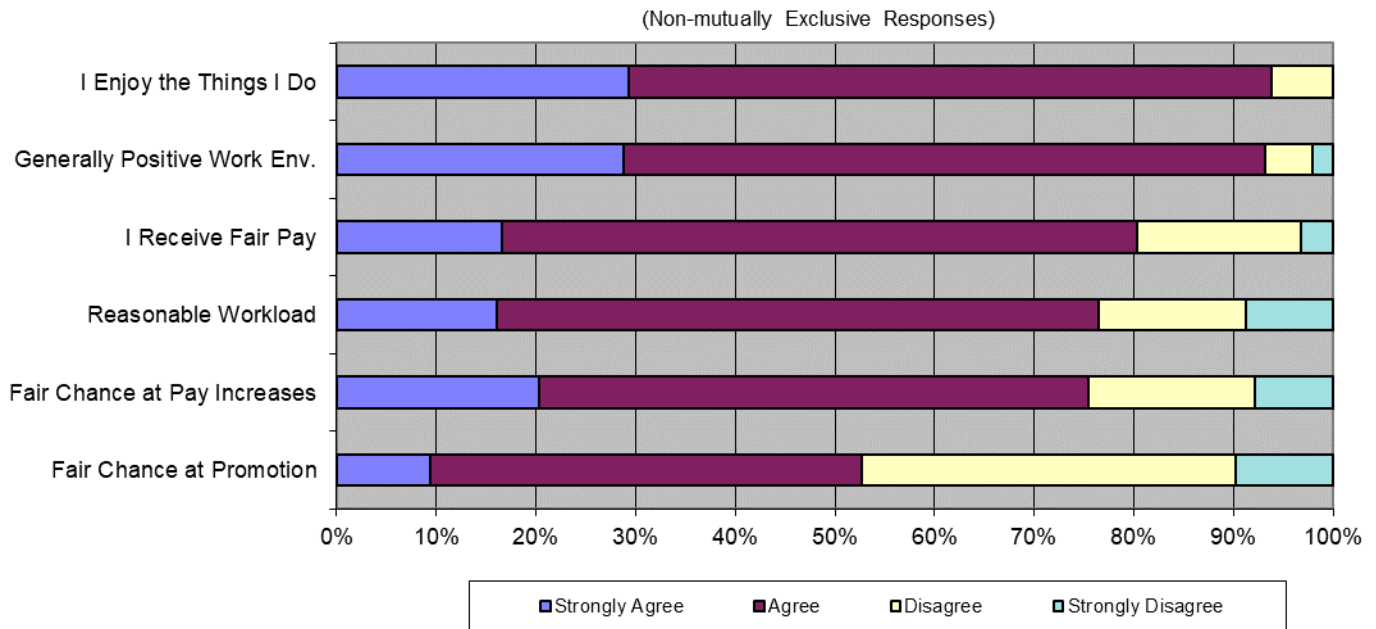


Table 4 shows combined “strongly agree” and “agree” responses of working Pool members and working non-Pool respondents. The table shows, for example, 93.8% of the working Pool members *at least* “agree” with the statement “I enjoy the things I do,” while a greater percentage (98.2%) of the working non-Pool respondents suggest the same.

The statement with the largest percentage of disparity between working Pool members and working non-Pool respondents is with regards to having a “reasonable workload.” Almost 77% of the working Pool respondents *at least* “agree” that they receive fair pay, while about 13% more (89.8%) of the working non-Pool members feel the same way.

*Table 4: Job Satisfaction Among Workers: Pool and Non-Pool Members*

	<b>Strongly and Agree</b>		<i>Difference</i>
	Pool Only Percent	Non-Pool Only* Percent	
I Enjoy the Things I Do	93.8	98.2	-4.4
Generally Positive Work Env.	93.2	95.9	-2.7
I Receive Fair Pay	80.3	88.2	-7.8
Reasonable Workload	76.5	89.8	-13.3
Fair Chance at Pay Increases	75.5	79.4	-3.9
Fair Chance at Promotion	52.7	53.7	-1.0

\*This column represents working non-Pool respondents.

## Considerations for Employment

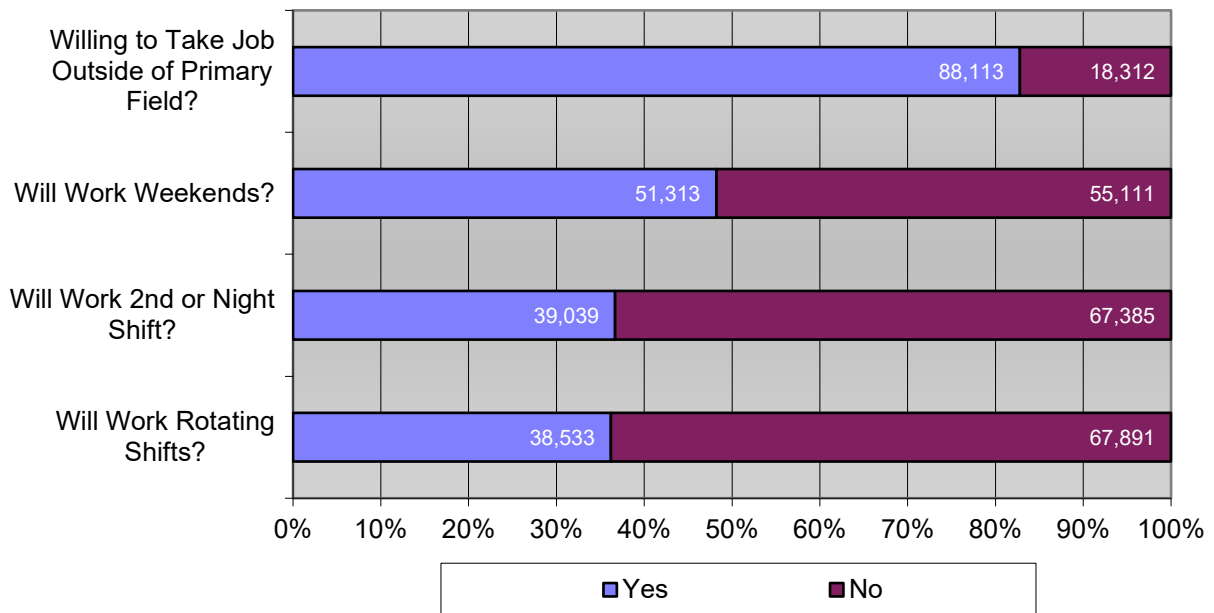
An important consideration for many employers looking to locate or expand operations is whether workers are willing to pursue new employment opportunities. Some workers may be available for new employment but are unwilling to switch from their current job to a different type of position. A large percentage of those unwilling to change their jobs, might limit the types of employers that can enter the labor basin.

This does not seem to be the case for the Mexico/Audrain County Labor Basin. Figure 11 shows that 88,113 (82.8%) members of the Available Labor Pool are willing to accept positions outside of their primary fields of employment.

Figure 11 also shows responses to three questions regarding work shifts. Respondents were asked if they would be willing to work weekends, a second or night shift, and rotating shifts.

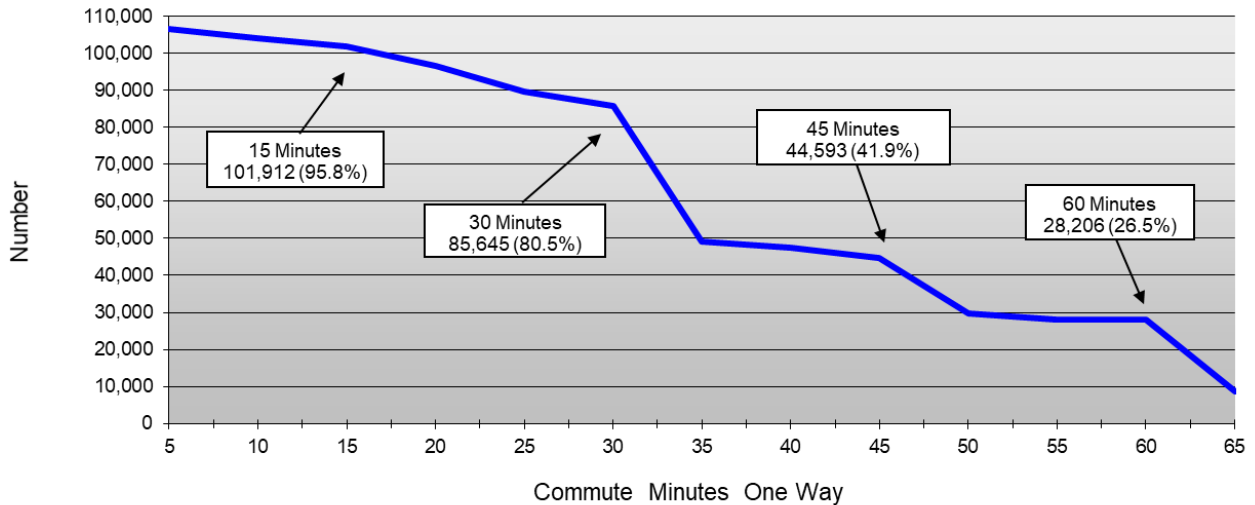
The figure shows that about 48% of the Available Labor Pool will work weekends, almost 37% will work a second shift for a new or different job, and about 36% will work rotating shifts.

Figure 11: Considerations for Employment



Another important consideration for many employers is whether workers are willing to commute for a new or different employment opportunity. Figure 12 suggest that the Available Labor Pool in the Mexico/Audrain County Labor Basin is open to commuting. Two-fifths (41.9%) of the members of the Available Labor Pool will commute up to 45 minutes, one way, for an employment opportunity, while 80.5% will commute up to 30 minutes for employment. Almost all (95.8%) will travel up to 15 minutes for employment.

Figure 12: Available Labor by Commute Minutes



Available Labor Pool members were asked about various benefits that might be important for considering whether to take a new or different job. Respondents were asked if each benefit would be a “very important” consideration for taking a new job. Answer options included “yes” and “no.”

Figure 13 (next page) shows that the five most important benefits are, in order, good salary or hourly pay, good retirement benefits, on-the-job (OTJ) or paid training, good health benefits, and good vacation benefits. All of these benefits are considered “very important” by more than 80% of the Available Labor Pool each.

Flexible hours/flex-time follows closely with 76%, while good education benefits follow with 43%. The least desired benefit is transportation assistance, considered “very important” by 26% of Available Labor Pool members.

Figure 13: Benefits Very Important to Change Employment

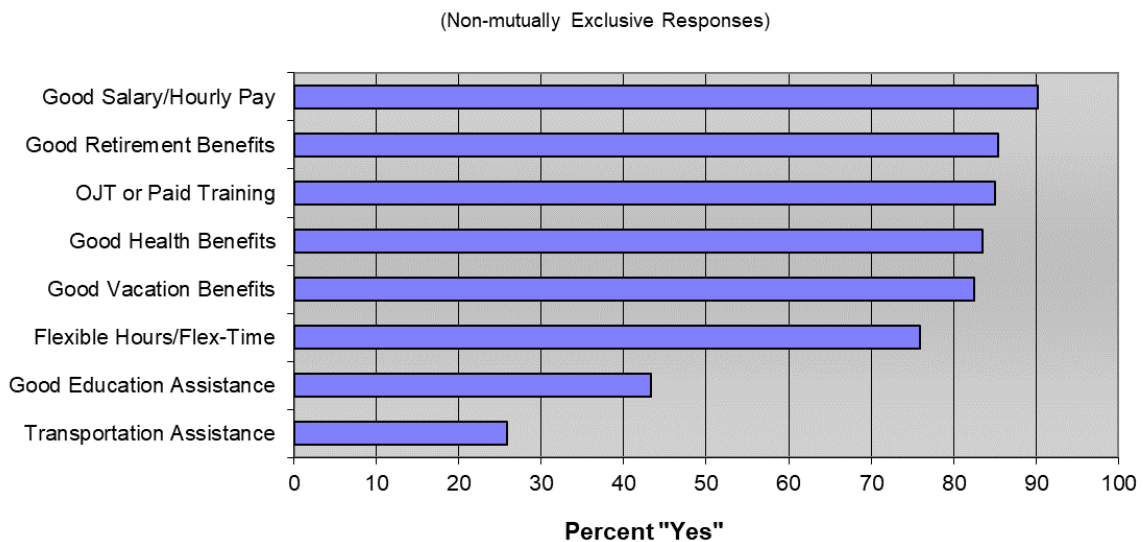


Table 5 lists the same benefits and percentages as shown in Figure 13. In addition, the center column shows the percentages of *working* Pool members who are currently offered those benefits. The “difference” column compares the two groups of respondents. For example, 90.2% of all Available Labor Pool members rated good salary/hourly pay as a “very important” benefit for a new or different job, while 85.1% of *working* Pool members report receiving good salary/hour pay. This represent a difference of 5.1%.

The items with the largest differences are good retirement benefits and flexible hours/flex-time. Larger percentages of by Available Labor Pool members desire these benefits than receive these benefits.

Table 5: Desired Benefits and Current Benefits Offered

	Benefit Important to Change Jobs Percent	Benefit Currently Offered* Percent	<i>Difference</i>
Good Salary/Hourly Pay	90.2	85.1	5.1
Good Retirement Benefits	85.4	74.8	10.6
OJT or Paid Training	85.0	78.2	6.8
Good Health Benefits	83.5	82.2	1.3
Good Vacation Benefits	82.5	77.9	4.6
Flexible Hours/Flex-Time	75.9	64.0	11.9
Good Education Assistance	43.3	46.0	-2.7
Transportation Assistance	25.8	19.2	6.6

\*This column represent working Pool members who receive the benefit.

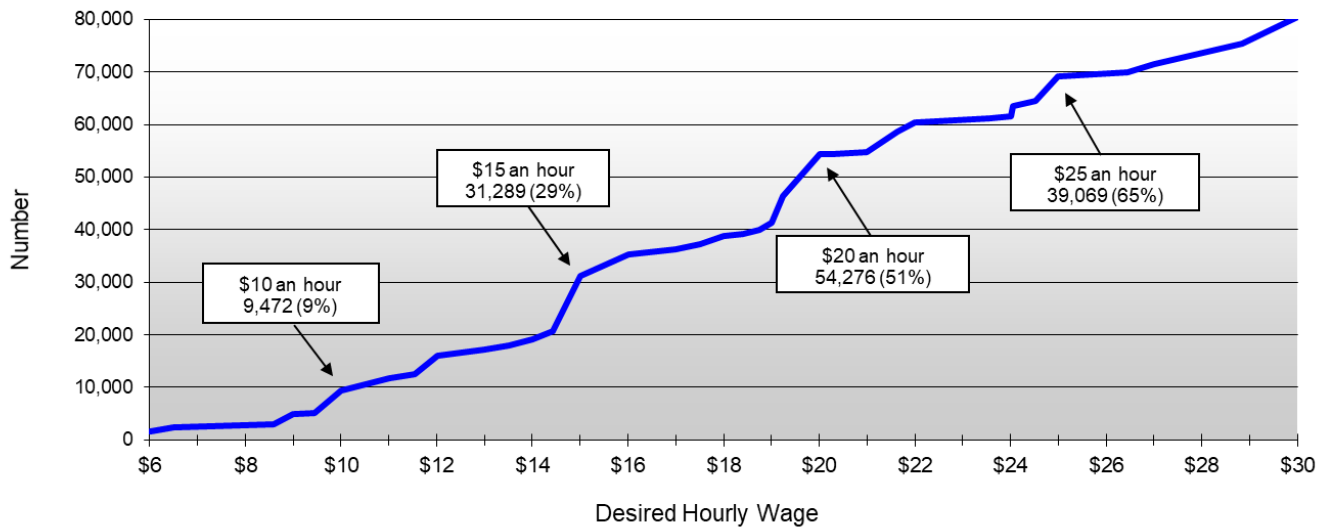


## Wage Demands of Available Labor Pool

Wage demands are another important consideration for employers and economic developers. Figure 14 shows desired wages for members of the Available Labor Pool. It is estimated that 39,069 people (or 65% of the available labor) are interested in a new job at \$25 an hour<sup>2</sup>.

An estimated 54,276 (51%) members of the Pool are interested in new employment opportunities at \$20 an hour, while 31,289 (29%) are interested at \$15 an hour. An estimated 9,472 people (9%) are interested in a new job at \$10 an hour.

Figure 14: Available Labor by Hourly Wage



<sup>2</sup> See the Appendix for an hourly wage/annual salary conversion chart.

## Underemployed Available Labor Pool Workers

Underemployment — individuals possessing skills and/or training levels that exceed the responsibilities of their current job — is a significant issue in many communities. To assess underemployment in the Mexico/Audrain County Labor Basin, *employed members of the Available Labor Pool* were presented with a scenario describing underemployment.<sup>3</sup> They were then asked a series of questions assessing if they perceive themselves as underemployed because: 1) their skill level is greater than their current job requires, 2) they possess higher levels of education than is required on the job, 3) they earned a higher income at a similar job previously, or 4) they are limited in the number of hours that they could work.

Of the 82,116 *employed members* of the Available Labor Pool (shown in Figure 15), more than a fifth answered “yes” to one or more of the questions presented above. These Pool members are considered “underemployed.” Figure 16 shows that the underemployed workers represent 22% (or 17,882 individuals) of the employed members of the Pool.

Figure 15: Employed and Unemployed Members of the Available Labor Pool

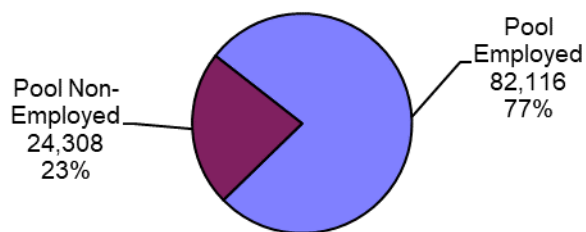
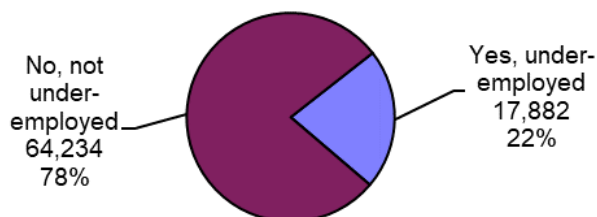


Figure 16: Underemployed Workers



<sup>3</sup> “Because of circumstances, some workers have jobs that do not fully match their skills, education, or experiences. For example, a master plumber taking tickets at a movie theater would be a mismatch between skill level and job requirements. Do you consider yourself an underemployed worker because...?”

Figure 17 shows the percentages of the positive responses (i.e., “yes” answers) to the various measures of underemployment. Almost 25% of this subset of the Available Labor Pool consider themselves underemployed because they possess education levels exceeding those needed for their current jobs. About 21% of those who consider themselves underemployed do so because they earned more money at a past but similar job. About 19% possess skills that are not being used currently on the job, while about 9% feel they are not offered enough work hours.

Figure 17: Reasons for Underemployment (n=17,822)

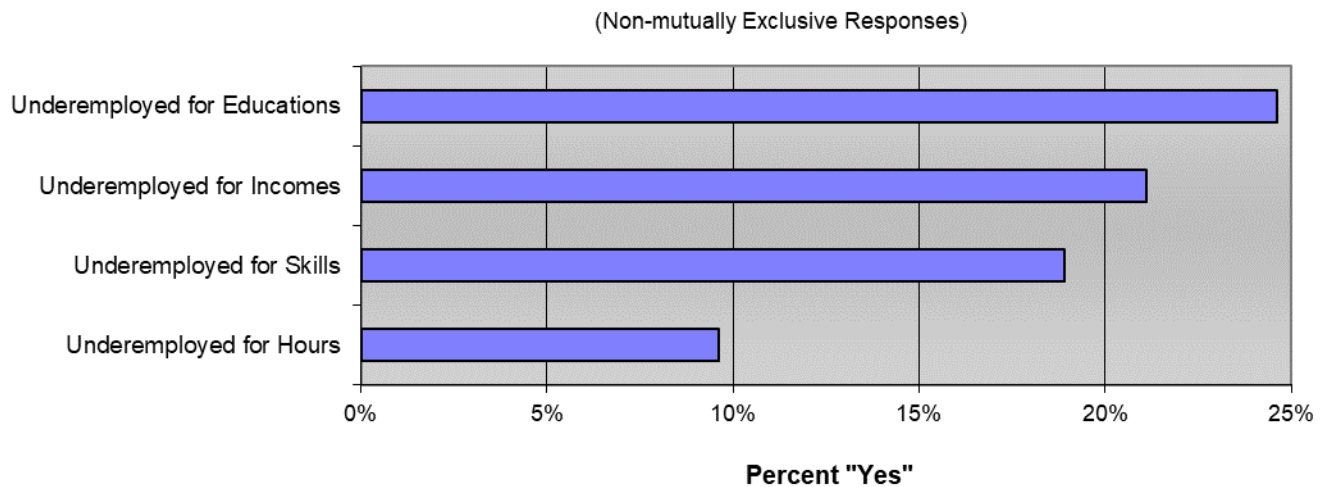


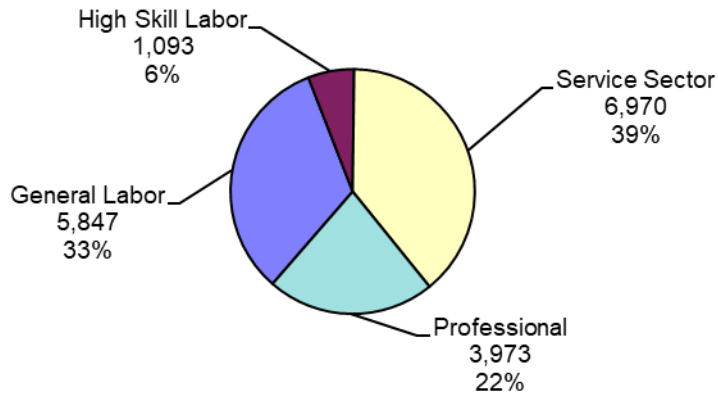
Table 6 and Figures 18 and 19 (next page) show some characteristics of the underemployed members of the Available Labor Pool. Table 6 shows that the education levels of the underemployed. The table shows that 77.6% of the underemployed workers have *at least* some college experience, while 93.3% have *a least* a high school diploma.

Table 6: Highest Level of Education Achieved Among Underemployed

	Number	Percent	Cumulative Percent
Doctoral Degree	1,639	9.2	9.2
Masters Degree	2,314	12.9	22.1
Bachelors Degree	4,233	23.7	45.8
Associates Degree	3,840	21.5	67.3
Some College	1,848	10.3	77.6
High School Diploma Only	2,812	15.7	93.3
Less HS Diploma	1,196	6.7	100
<b>Total</b>	<b>17,882</b>	<b>100</b>	

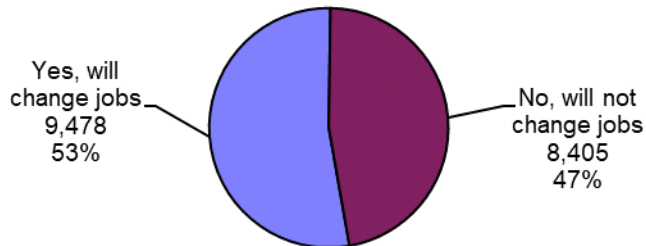
Figure 18 shows that 33% of the underemployed workers are general laborers and 6% are high skill blue-collar workers. The highest percentage of underemployed workers are employed as service sector and support workers (39%), while 22% hold professional positions.

Figure 18: Occupational Sectors of Underemployed Workers



Underemployed workers were asked if they “are available or a new or different job because they are underemployed?” Figure 19 shows that 53% (or 9,478 individuals) of the underemployed workers are seeking new employment to address underemployment.

Figure 19: Seeking New Employment to Address Underemployment



## Methods

The Mexico/Audrain County Labor Basin has a total population of approximately 334,149, and a Civilian Labor Force of 168,422. The total number of employed is 163,733 and the average unemployment rate was 2.78% at the time of this study.

### ***Explaining the Civilian Labor Force***

Traditional methods of assessing the dynamics of the labor force have concentrated on what the Bureau of Labor Statistics calls the Civilian Labor Force. The Civilian Labor Force represents “the civilian non-institutional population, 16 years of age and over classified as employed or unemployed.” The BLS defines “non-institutional civilians” as those individuals who are not inmates in institutions and who are not on active duty in the Armed Forces; and “unemployed civilians” as civilians available for work and who had “made specific efforts to find employment” in the previous four weeks.

While a review of Civilian Labor Force statistics represents the starting point for understanding the labor force in the Mexico/Audrain County Labor Basin, there are some limitations associated with these statistics. These limitations occur because the Civilian Labor Force *excludes* individuals who may be willing and able to be gainfully employed but have not made specific efforts to find employment in the last four weeks. These individuals may include full-time students, homemakers, the unemployed who are no longer seeking employment, military personnel who may be leaving military employment in the near future and retired individuals who may be available for work but have not been looking for work recently.

In addition, most new employers draw their workforce from those who are presently employed, not those who are unemployed. As such, Bureau of Labor Statistics data (such as the Civilian Labor Force) do not specifically address the possibility of workers moving from one industry to another in search of other employment opportunities.

### ***Defining the Available Labor Pool***

An alternative to the Civilian Labor Force is the “Available Labor Pool.”<sup>4</sup> The Available Labor Pool is composed of workers categorized as either 1) currently not working *and* looking for employment, 2) currently not working *but* interested in employment, 3) currently working *and* looking for other full-time employment, and 4) currently working and not looking, *but* interested in different employment for the right opportunities.

There are two key differences between the Civilian Labor Force and the Available Labor Pool. First, the Available Labor Pool methodology expands the pool of potential workers by including workers excluded from the Civilian Labor Force<sup>5</sup>. Secondly, the number of potential workers is

---

<sup>4</sup> The Available Labor Pool includes potential workers excluded from the Civilian Labor Force (such as full-time students willing to take a job, homemakers who have not yet sought employment, military personnel who may be leaving military employment in the near future, and retired individuals who may be willing and able to be gainfully employed).

<sup>5</sup> The number that is added to the Civilian Labor Force is derived by taking from the survey the total number of full-time students, homemakers, military, retirees, and long-term unemployed, who state that they are seeking or available for employment and are within a reasonable commute distance to the center of the labor basin, and dividing this number by the total number of respondents. This quotient is then multiplied by the total number of people in the labor basin who are 18 to 65 years old.

then *restricted* to those workers who indicate they are looking for work or that are available for new employment. The advantage of this methodology is that it allows researchers to examine those members of the labor pool who have a propensity to consider a job opportunity given their employment expectations. Even with these restrictions, it should be noted that, in practice, not all members of the Available Labor Pool would apply for a new job opportunity. However, the Available Labor Pool figure for a labor basin reveals to current employers and potential employers better information about the quantity and quality of the labor pool than do Civilian Labor Force data and unemployment statistics. The Available Labor Pool represents a substantial number of workers and potential workers for employers to draw upon in the Mexico/Audrain County Labor Basin.

### ***Description of Survey Research Methods***

Data for the **2020 study** were collected from a random digit telephone survey of adults living in none counties in central Missouri: Audrain, Boone, Callaway, Howard, Monroe, Montgomery, Pike, Ralls, and Randolph counties in Missouri.<sup>6</sup> Surveying took place from February 11 through March 3, 2020, using a Computer Assisted Telephone Interviewing (CATI) system. Surveying ended sooner than expected due to the COVID-19 outbreak and the need to close the survey center. A total of 1,304 households were successfully contacted during the data collection period, and a randomly selected adult in each was asked to participate in the study.<sup>7</sup> In 530 households the selected adult agreed to be interviewed. This represents a cooperation rate of 40.6% and a margin of error of +/-4.26%.

Survey respondents that were 65 years of age or older, retired and not interested in a new or different job were not asked the entire battery of survey questions and are not included in the analysis of this report. The remaining respondents (all other working and non-working respondents) total to 428, and are considered eligible respondents. Of the 428 cooperating and eligible respondents, 55.7% (or 238) indicated that they were available for new or different full-time employment and/or were looking for a new or different full-time job. This subgroup is considered the Available Labor Pool for the Mexico/Audrain County Labor Basin. The Margin of Error for the Available Labor Pool is +/- 6.35%.

The study sponsors and Institute personnel agreed upon the survey items used, with the former identifying the study objectives and the latter developing items and methodologies that were valid, reliable and unbiased. Question wording and design of the survey instrument are the property of the Docking Institute.<sup>8</sup>

---

<sup>6</sup> Cell-phone and land-line telephone numbers were assembled by randomly generating suffixes within specific area codes and prefixes. As such, unlisted numbers were included in this sample, minimizing the potential for response bias. Known business, fax, modem, and disconnected numbers were screened from the sample in efforts to reach households only (and to minimize surveyor dialing time). Up to eight attempts were made to contact each respondent during three calling periods (10 AM to Noon, 2 PM to 4 PM, and 6 PM to 9 PM). Initial refusals were re-attempted by specially trained "refusal converters," which aided in the cooperation rate.

<sup>7</sup> When a land-line number was called, surveyors requested to "speak with an adult over the age of 17 that has had the most recent birthday." When a cell-phone number was called, the respondent was asked if they were over the age of 17.

<sup>8</sup> A detailed summary of the method of analysis used in this report can be found in Joseph A. Aistrup, Michael S. Walker and Brett A. Zollinger, "The Kansas Labor Force Survey: The Available Labor Pool and Underemployment." *Kansas Department of Human Resources*, 2002.

## Glossary of Terms

**Mexico/Audrain County Labor Basin** – The Mexico/Audrain County Labor Basin includes Audrain, Boone, Callaway, Howard, Monroe, Montgomery, Pike, Ralls, and Randolph counties in Missouri.

**Civilian Labor Force** – The Civilian Labor Force represents “the civilian non-institutional population, 16 years of age and over classified as employed or unemployed.” The Bureau of Labor Statistics defines “non-institutional civilians” as those individuals who are not inmates in institutions and who are not on active duty in the Armed Forces; and “unemployed civilians” as civilians available for work and who had “made specific efforts to find employment” in the previous four weeks.

**Available Labor Pool** – The Available Labor Pool is composed of workers and potential categorized as either 1) currently not working *and* looking for employment, 2) currently not working in any manner *but* interested in a new or different job given the right opportunities, 3) employed (full- or part-time) *and* looking for other full-time employment, and 4) currently employed and not looking, *but* interested in different employment given the right opportunities.

**Desired Wage** – The desired wage is the hourly wage that a respondent would consider accepting to take a new or different job given the right opportunities. If a respondent offers a yearly salary instead of an hourly wage, a wage is computed by dividing the salary by 2,080.

**Minutes Willing to Travel** – “Minutes Willing to Travel” indicates the minutes that a respondent is willing to travel, one way, for a new or different job opportunity given the right opportunities.

**Underemployment** – Individuals that perceive themselves as possessing skills and/or training levels that exceed the responsibilities of their current job, have educations that exceed those necessary for their current job, have earned a higher salary/hour wage for a previous but similar job, or are unable to work as many hours as desired at their current job.

**Job Sectors** – “Job sectors” include (with examples shown):

**General Labor** includes occupations such as cleaning, construction, delivery and maintenance.

**High-Skill Blue Collar** includes occupations such as police, fire-fighting, postal worker, welder, high-skilled mechanics, welder, computer technician and lab technician.

**Service Sector** includes occupations such as clerical worker, waitress, retail sales clerk, bookkeeper, para-professional, certified nurse’s assistant, nurse, teacher and small business manager.

**Professional White Collar** includes occupations such as administrator, business executive, professional salesperson, doctor, lawyer, professor and engineer.

## Appendix: Hourly Wage to Annual Salary Conversion Chart

Hourly Wage	Annual Salary	Hourly Wage	Annual Salary
\$5.00	\$10,400		
\$5.50	\$11,440		
\$6.00	\$12,480		
\$6.50	\$13,520		
\$7.00	\$14,560		
\$7.50	\$15,600		
\$8.00	\$16,640		
\$8.50	\$17,680		
\$9.00	\$18,720		
\$9.50	\$19,760		
\$10.00	\$20,800		
\$10.50	\$21,840		
\$11.00	\$22,880		
\$11.50	\$23,920		
\$12.00	\$24,960		
\$12.50	\$26,000		
\$13.00	\$27,040		
\$13.50	\$28,080		
\$14.00	\$29,120		
\$14.50	\$30,160		
\$15.00	\$31,200		
\$15.50	\$32,240		
\$16.00	\$33,280		
\$16.50	\$34,320		
\$17.00	\$35,360		
\$17.50	\$36,400		
\$18.00	\$37,440		
\$18.50	\$38,480		
\$19.00	\$39,520		
\$19.50	\$40,560		
\$20.00	\$41,600		
\$20.50	\$42,640		
\$21.00	\$43,680		
\$21.50	\$44,720		
\$22.00	\$45,760		
\$22.50	\$46,800		
\$23.00	\$47,840		
\$23.50	\$48,880		
\$24.00	\$49,920		
\$24.50	\$50,960		
\$25.00	\$52,000		
\$25.50	\$53,040		
\$26.00	\$54,080		
\$26.50	\$55,120		
\$27.00	\$56,160		
\$27.50	\$57,200		
\$28.00	\$58,240		
\$28.50	\$59,280		
\$29.00	\$60,320		
\$29.50	\$61,360		
		\$30.00	\$62,400
		\$30.50	\$63,440
		\$31.00	\$64,480
		\$31.50	\$65,520
		\$32.00	\$66,560
		\$32.50	\$67,600
		\$33.00	\$68,640
		\$33.50	\$69,680
		\$34.00	\$70,720
		\$34.50	\$71,760
		\$35.00	\$72,800
		\$35.50	\$73,840
		\$36.00	\$74,880
		\$36.50	\$75,920
		\$37.00	\$76,960
		\$37.50	\$78,000
		\$38.00	\$79,040
		\$38.50	\$80,080
		\$39.00	\$81,120
		\$39.50	\$82,160
		\$40.00	\$83,200
		\$40.50	\$84,240
		\$41.00	\$85,280
		\$41.50	\$86,320
		\$42.00	\$87,360
		\$42.50	\$88,400
		\$43.00	\$89,440
		\$43.50	\$90,480
		\$44.00	\$91,520
		\$44.50	\$92,560
		\$45.00	\$93,600
		\$45.50	\$94,640
		\$46.00	\$95,680
		\$46.50	\$96,720
		\$47.00	\$97,760
		\$47.50	\$98,800
		\$48.00	\$99,840
		\$48.50	\$100,880
		\$49.00	\$101,920
		\$49.50	\$102,960
		\$50.00	\$104,000