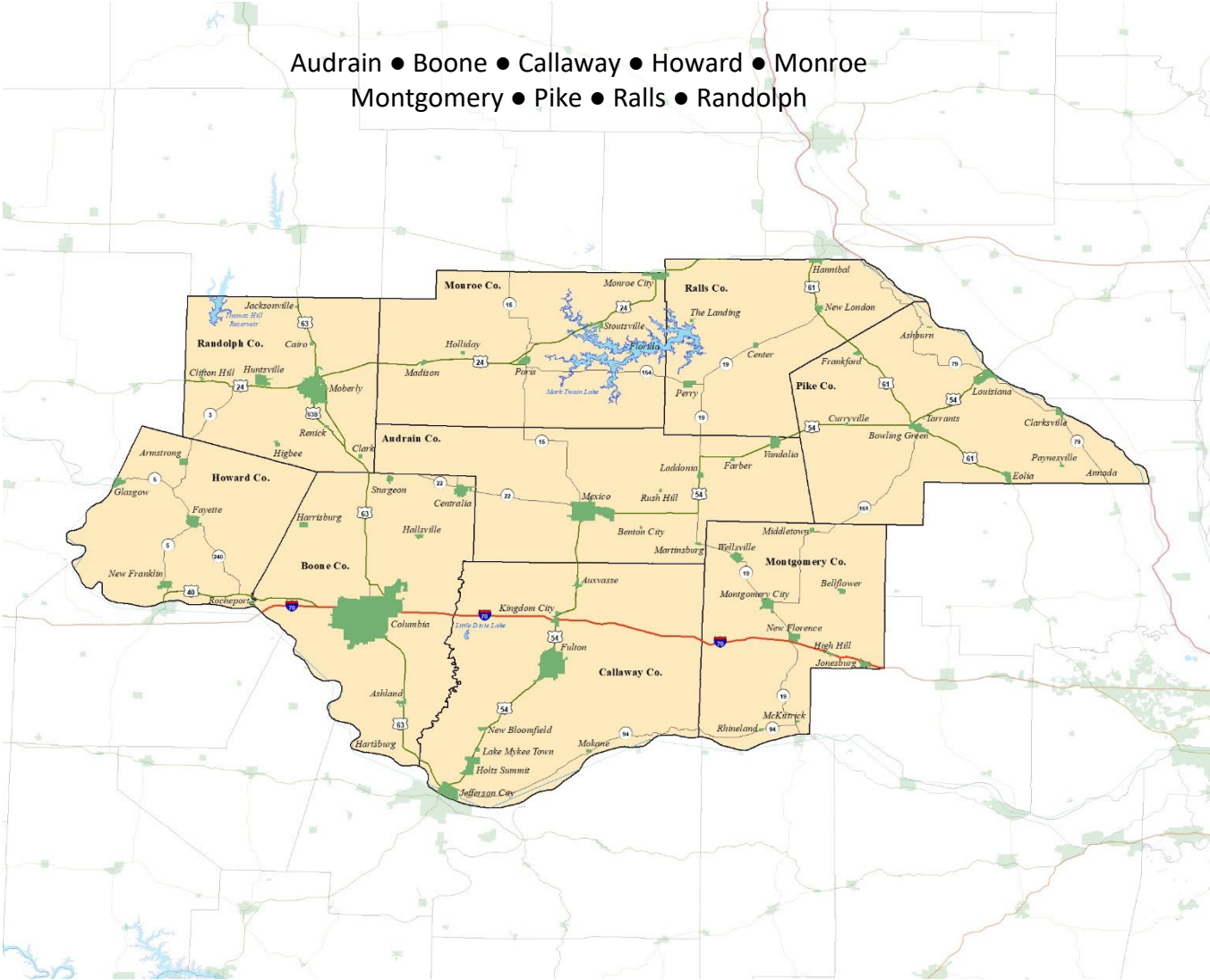


Mexico/Audrain County Labor Basin

Labor Availability Analysis – 2022

Including a comparison to data from the
2020 Labor Availability Study

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



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Mexico/Audrain County Labor Basin Labor Availability Analysis - 2022

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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 central Missouri. The purpose of this report is to assess the “Available Labor Pool” (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 the following:

The Mexico/Audrain County Labor Basin includes nine counties in central Missouri. The labor basin has a total population of approximately 338,637 and a Civilian Labor Force of 168,256. The total number of employed is 162,748 and the average unemployment rate was about 3.27% during the time of this study. The Docking Institute estimates the basin’s Available Labor Pool consists of 100,052 individuals.

Of the *working members* of the Available Labor Pool, 14,107 (14.1%) are employed and currently looking for different employment, while 65,087 (65.1%) are interested in a new job for the right opportunities. Of the non-working members of the Pool, 3,826 (3.8%) are looking for employment, while 17,032 (17%) are interested in a job for the right opportunities.

The average age in the Pool is about 49 years old, 53.8% are women, all have high school diplomas, 84.6% have some college-level educational experiences, and 63% have bachelor’s degree. A quarter (24.9%) speak Spanish, but most (80.1%) of those who do, speak “only a little.”

General labor occupations are held by 16.1% of Pool members, while high skill labor jobs make up 7.5%. Traditional service-related occupations represent 32.9%, while professional occupations represent 22.9%. Non-employed members of the Pool make up 20.6% of the total.

An estimated 75,351 Pool members **have training/experience** in data entry with telephone operation, 56,729 have training/experience working in a professional office environment, 35,518 have training/experience in warehousing, 34,518 have training/experience in manufacturing or processing, and 9,405 have training/experience in security or protective services.

An estimated 43,623 Pool members **will take jobs** in data entry/telephone operation, 44,723 will take jobs in a professional office environment, 29,155 will take jobs in warehousing, 25,413 will take jobs in manufacturing or processing, and 10,606 will take jobs in security or protective services.

Of those with warehousing experience, 33% moved and loaded materials. Of those with manufacturing or processing experience, 49% worked in production, fabrication, or assembly.

When asked where they currently work, most employed Pool members mentioned Columbia followed by Jefferson City, Fulton, Moberly, Mexico, Hannibal, Glasgow, Bowling Greene, Boonville, Steedman, and New London.

The college academic fields of Pool members with college experience include business and economics (30%), biological sciences and health (18%), physical sciences (13%), social sciences (13%), education (11%), arts and humanities (10%), and computer science and math (5%).

Of members of the Pool with community college or technical school experience (16%), 26.3% report taking nursing or other healthcare related courses; 25.7% took general education courses; 19.3% studied HVAC, wiring, plumbing, welding, etc.; and 15.8% took business skills courses.

Regarding job satisfaction, when presented with the statement “I enjoy the things I do,” 55.8% “agree” and 30.9% “strongly agree.” When presented with the statement “I have a generally positive work environment,” 54.8% “agree” and 23.7% “strongly agree.” For the statement “I have a fair chance at a promotion, 31.7% “agree or strongly agree” (combined) and 37.5% “disagree or strongly disagree” (combined).

Most (72.1%) will take a job outside of their primary field of employment or experience. When asked about working various shifts, 37.9% will work the 2nd shift, 35.1% will work weekends, 21.5% will work the night shift, and 20.5% will work rotating shifts.

Regarding travel to work, 24.7% will commute up to 45 minutes, one way, for a job and 69% will commute up to 30 minutes for a job.

The five most important benefits, in order, are good salary or hourly wage, good retirement benefits, good vacation benefits, flexible hours/remote work, and good health benefits.

An estimated 10,648 (10.6%) members of the Pool expect to earn \$15 an hour at a new job, while 33,775 (33.8%) expect to earn \$20 an hour at a new job.

In general, respondents expecting higher wages are willing to commute for more minutes than those expecting lower wages.

Of the 20,780 members in the “within the necessary commute time” subset, 13,974 expect an hourly wage of \$30.

Of the 79,442 employed members in the Pool, 22,792 (29%) consider themselves underemployed.

Of the 65,833 Pool members who do not own a business, 11,973 (18%) have “seriously thought about” starting their own businesses.

A comparison of data from the labor studies conducted in 2020 and 2022 shows that there are more “employed and looking” Pool members in 2020 than in 2022, but more “employed but interested” Pool members in 2022 than in 2020.

The 2022 study shows a larger percentage of professional Pool members (22.9%) than the 2020 study (15.6%).

The 2020 study shows a larger percentage of Pool members willing to take jobs outside of their primary fields of employment or experience (82.8%) than the 2022 study (72.3%).

Both studies show notable declines of available labor as commute times increase from 30 minutes and 35 minutes. The largest decline occurred in 2022 (from 68,986 Pool members to 34,882 Pool members compared to 85,645 Pool members to 49,276 Pool members in 2020).

The percentages of Pool members considering “Good salary/hourly pay” and “flexible hours or remote work” as very important benefits/opportunities increased between 2020 and 2022 (90.2% and 96.7% for the former and 75.9% and 82.2% for the latter).

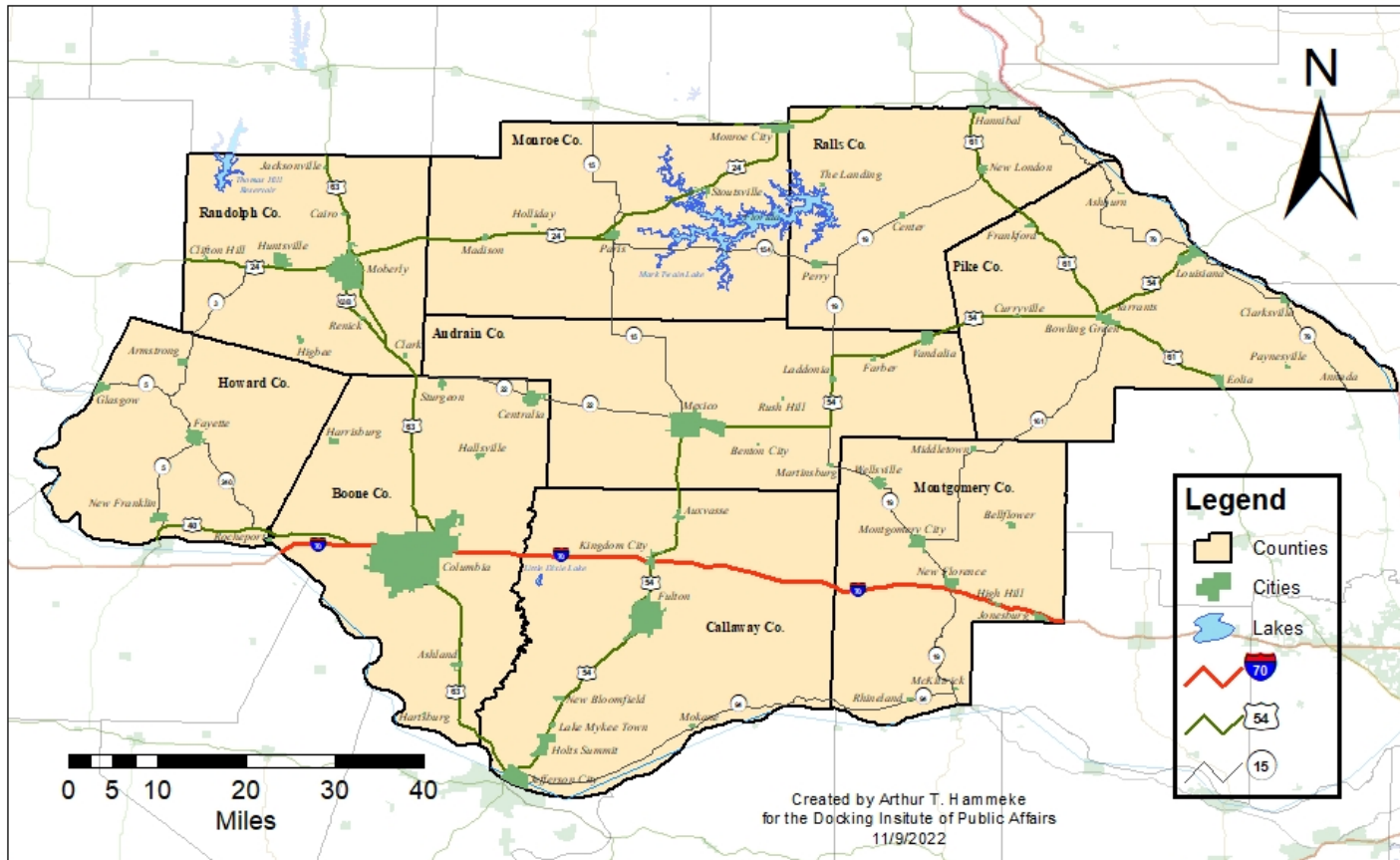
A comparison of expected wage data shows notable Pool size increases between \$15 and \$20 an hour. 2022 shows a larger increase in Pool size (from 10,648 to 33,775) than 2020 (from 31,288 to 54,276).

2022 shows a larger percentage of underemployed workers (28.74%) than 2020 (21.8%).

The Mexico/Audrain County Labor Basin

The Mexico/Audrain County Labor Basin includes nine counties in central Missouri (see Map 1 below). The labor basin has a total population of approximately 338,637, and a Civilian Labor Force of 168,256. The total number of employed is 162,748 and the average unemployment rate was about 3.27% during the time of this study. The Docking Institute’s analysis suggests that the basin contains an Available Labor Pool of 100,052 individuals.

Map 1: Mexico/Audrain County Labor Basin



The Available Labor Pool (Pool) is composed of working age area residents who are classified as 1) currently not working *and* looking for a job, or 2) not working *but* interested in a job, or 3) currently working *and* looking for another job, or 4) currently employed *but* interested in different job for the right opportunities. Please see the Methods Section 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

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?
- How many years of experience do workers have at their current jobs?
- What types of considerations (pay, benefits, commute time) shape their decision-making?
- How do expected pay and commute time interact?
- What are some of the characteristics of general laborers, high skill laborers, service and support workers, and professional workers?
- What percentage of the Available Labor Pool is willing to change fields of employment?
- What types of work shifts are they willing to work?
- What is their level of job satisfaction, and how do these compare to working non-Pool members?
- How many Available Labor Pool members are underemployed?
- How many might be interested in starting a business?

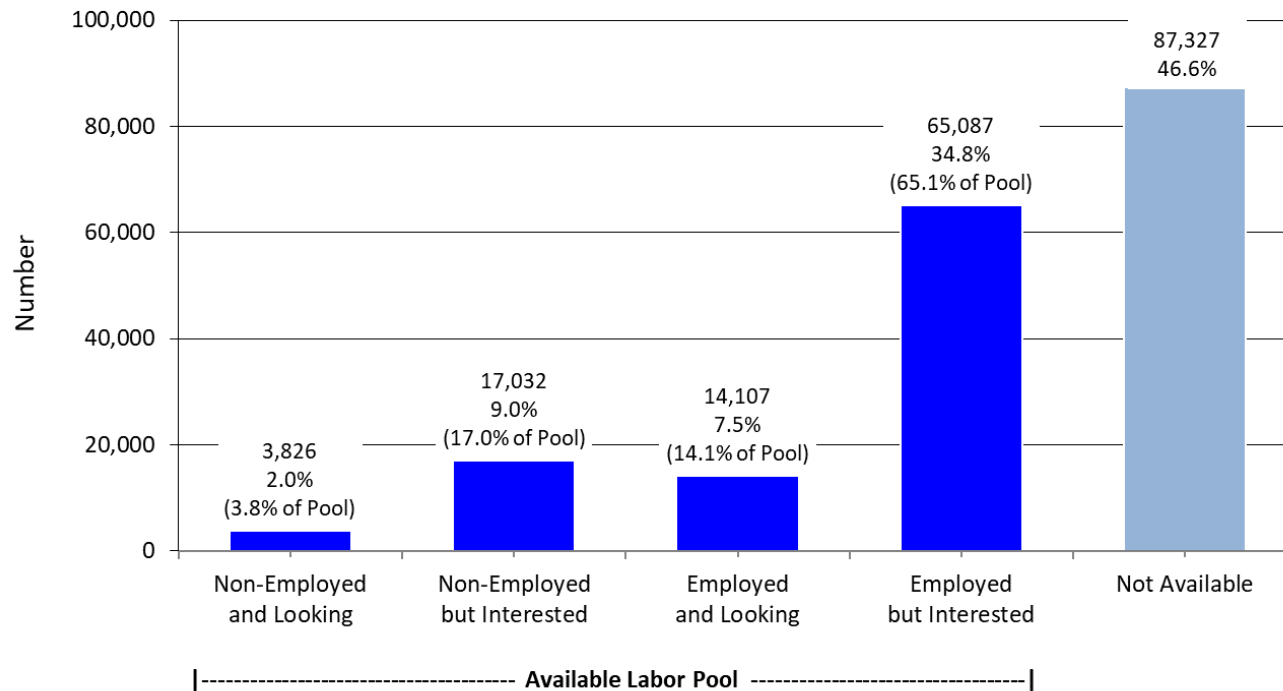
Comparative Analysis

Finally, this report provides a comparative analysis of key findings from the 2020 and 2022 labor availability reports conducted in the Mexico/Audrain County area.

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

It is estimated that 3,826 (2% members of the Available Labor Pool) are non-employed¹ and currently looking for employment, while 17,032 (17%) are non-employed but interested in a job for the right opportunities. In addition, 14,107 (14.1%) members of the Pool are employed and currently looking for different employment, while 65,087 (65.1%) 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*.

¹ 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 that Zip Code areas in eight counties share up to 5% of the Available Labor Pool (orange areas on the map), while Zip Code areas in Montgomery shares up to 1%. Zip Code areas located in Callaway County share up to 10% of the Available Labor Pool (red area on the map). Zip Code areas in Boone County share 10% or more of the basin’s Available Labor Pool (darkest shading on the map).

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

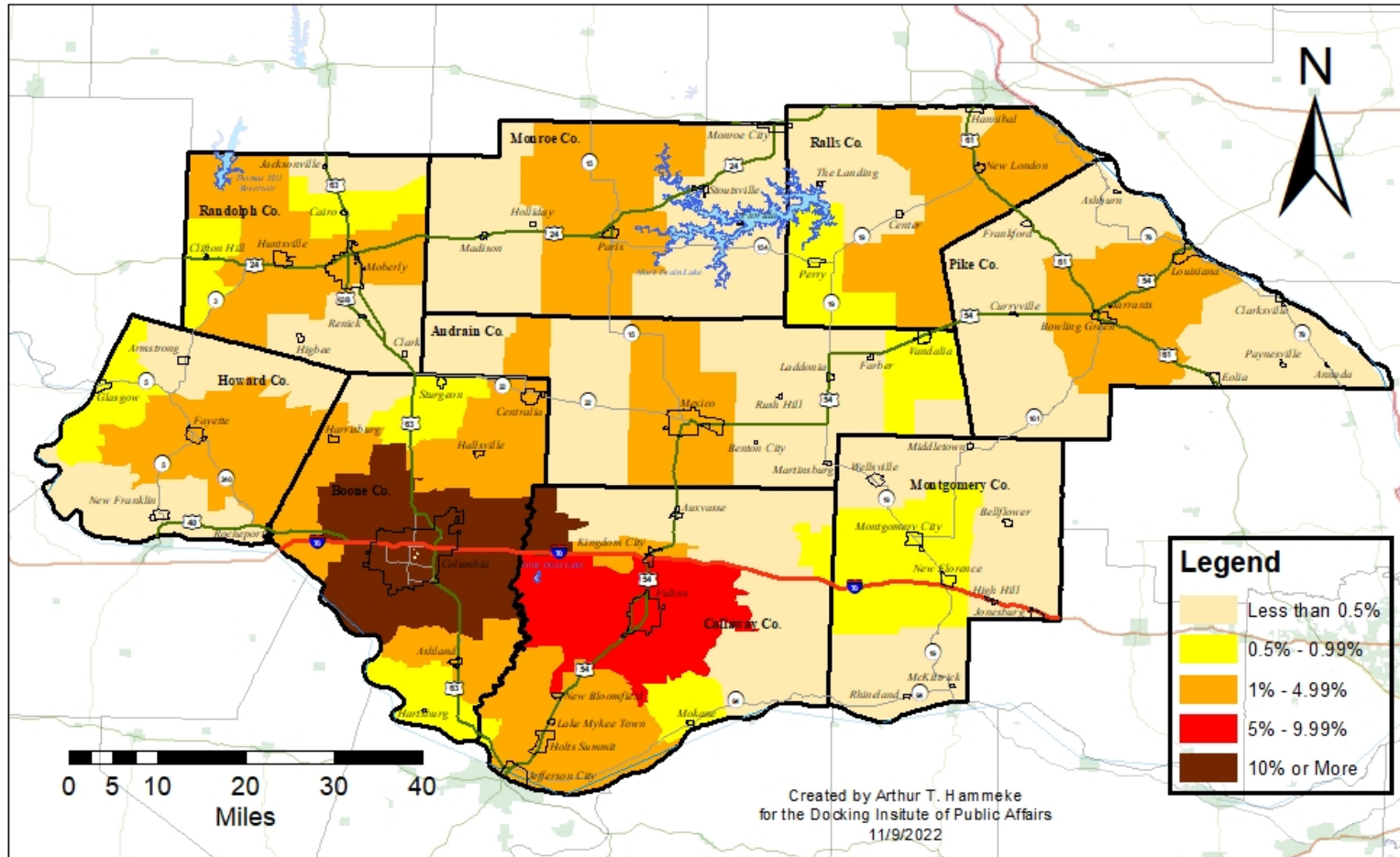


Table 1 shows the age, gender, and education levels of the 100,052-member Available Labor Pool. The average age of the Available Labor Pool is about 49 years old, more than half (53.8%) of the Pool are women, and nearly all the Pool (99.6%) have high school diplomas. A large majority (84.6%) have some college-level educational experience, and more than half (63%) have bachelor’s degree. The table also shows that almost a quarter (24.9%) speak Spanish, but most (80.1%) of those who do, speak “only a little.”

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

Age Information	Age in 2022	
Range	20 to 77	
Mean Average	49	
Median Average	50	

Gender	Number	Percent
Male	44,557	44.5
Female	53,789	53.8
Prefer Not to Say	1,706	1.7
Total	100,052	100

Highest Level of Education	Number	Percent	Cumulative Percent
Doctoral Degree	8,381	8.4	8.4
Masters Degree	21,187	21.2	29.6
Bachelors Degree	33,495	33.5	63.0
Associates Degree	9,925	9.9	73.0
Some College	11,701	11.7	84.6
High School Diploma	15,363	15.4	100
Less HS Diploma	0	0.0	
Total	100,052	100	

"Do you speak Spanish?"	Number	Percent
"Yes"	24,930	24.9
<i>Speak Very Well</i>	1,508	6.0
<i>Speak Fairly Well</i>	3,465	13.9
<i>Speak Only a Little</i>	19,958	80.1

These percentages represent portions of 24.9%

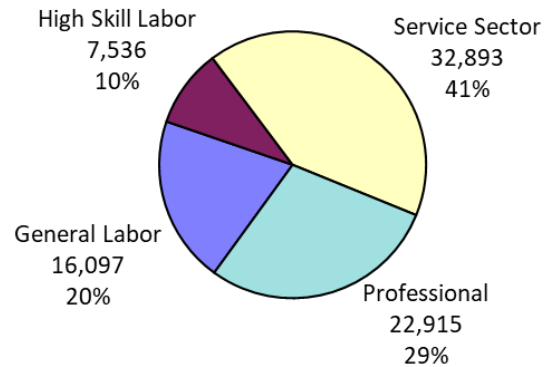
Table 2 shows the various occupational categories of the 100,052-member Available Labor Pool. General labor occupations are held by 16.1% of the entire Available Labor Pool, while high skill labor jobs make up 7.5%. Traditional service-related occupations represent 32.9% of the Available Labor Pool, while professional occupations represent 22.9%. Non-employed members of the Pool make up about one-fifth (20.6%) of the total.

Table 2: Major Occupational Categories of Available Labor

Occupational Category	Number	Percent	Years at Job	
			Mean	Median
Construction/Cleaning/Labor/Delivery	11,654	11.6	10.1	5.0
Manufacturing/Maintenance/Trucking	4,443	4.4	10.7	8.7
<i>Total General Labor</i>	<i>16,097</i>	<i>16.1</i>	<i>10.4</i>	<i>6.9</i>
Mechanic/Welder/Comp Tech	3,112	3.1	14.4	9.8
Crew Management/Protection Services	4,424	4.4	7.6	4.4
<i>Total High Skill Labor</i>	<i>7,536</i>	<i>7.5</i>	<i>11.0</i>	<i>7.1</i>
Customer Service	7,547	7.5	6.7	6.1
Clerical	6,032	6.0	6.6	2.6
Office or Dept Manager	4,717	4.7	7.7	3.9
Health Aid/Nurse	9,710	9.7	10.7	5.0
Education Aid/Teacher	4,887	4.9	8.3	5.0
<i>Total Service Sector</i>	<i>32,893</i>	<i>32.9</i>	<i>8.0</i>	<i>5.0</i>
Exec Management	4,447	4.4	6.7	7.2
Accounting/Programming/Engineering	8,873	8.9	8.9	5.7
Doctor/Professor/Attorney	7,083	7.1	13.3	12.0
Writer/Artist/Musician	2,513	2.5	11.8	5.0
<i>Total Professional Sector</i>	<i>22,915</i>	<i>22.9</i>	<i>10.2</i>	<i>6.5</i>
Homemaker/Students/Unemployed	8,332	8.3	n/a	n/a
Retirees/Disabled	12,278	12.3	n/a	n/a
<i>Total Non-Employed</i>	<i>20,610</i>	<i>20.6</i>		
Total	100,052	100		

Figure 2 shows the occupational sectors of employed members *only* of the Available Labor Pool. The *percentages* shown in Figure 2 differ from those presented in Table 2 because the table includes non-employed Available Labor Pool members.

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 to assess work skills and previous work experience.

Table 3 and Figure 3 show the current employment status and previous work/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 who have previous work/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 who indicate previous training or experience in that same field.

For example, 8,260 Pool members are currently employed as general laborers, construction workers, cleaners, and similar positions. An additional 8,088 Pool members (employed and non-employed) have previous work/training experience in those same type of jobs, for a total of 16,347 individuals.

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
Working with Hands					
Construction, Cleaning, Manual Labor	8,260		8,088		16,347
Farm or Ranch Labor	2,114		560		2,674
Manufacturing and Assembly	1,241		3,161		4,401
Maintenance	2,475		3,338		5,813
Driving (Delivery, Bus, Postal)	1,281		3,307		4,588
Truck Driving/Heavy Equip. Operator	727		591		1,318
Skilled Labor	1,860		1,985		3,845
Crew Management	4,424		1,121		5,544
Working with People					
General Customer Service	7,547		5,074		12,621
Office Management	4,717		10,269		14,987
Governmental Services	0		1,121		1,121
Executive Management	4,447		2,802		7,249
Advanced Social Services	1,422		1,121		2,543
Working with Numbers					
Clerical	6,032		2,735		8,767
Accounting/Finance/Banking	2,010		1,121		3,131
Researcher/Analyst	4,350		2,505		6,855

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Table 3: Current Work Experience Plus Previous Work or Training Experience (Continued)

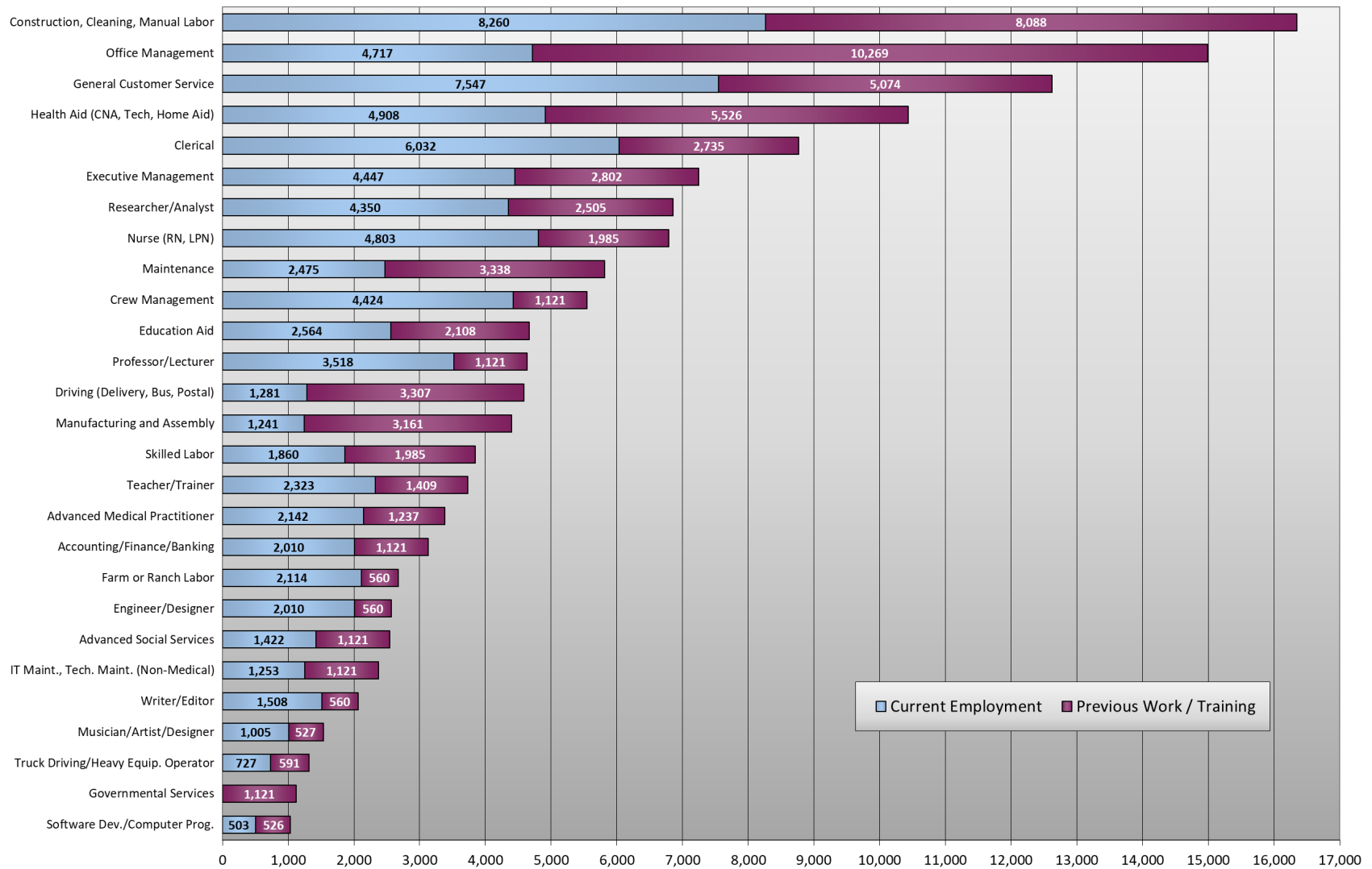
	Current Employment* Number	+ Previous Work/Training Number	= Current plus Previous Work or Training** Number
Working with Technology			
IT Maint., Tech. Maint. (Non-Medical)	1,253	1,121	2,374
Software Dev./Computer Prog.	503	526	1,029
Engineer/Designer	2,010	560	2,571
Providing Health Services			
Health Aid (CNA, Tech, Home Aid)	4,908	5,526	10,434
Nurse (RN, LPN)	4,803	1,985	6,788
Advanced Medical Practitioner	2,142	1,237	3,380
Providing Educational Services			
Education Aid	2,564	2,108	4,671
Teacher/Trainer	2,323	1,409	3,732
Professor/Lecturer	3,518	1,121	4,639
Creative Arts			
Musician/Artist/Designer	1,005	527	1,532
Writer/Editor	1,508	560	2,068
Total	79,442	65,579	

* 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. Most of the job areas included show more current workers than previous workers. Exceptions include Office Management; Health Aid (CAN, Tech, Home Aid); Maintenance; Driving (Delivery, Bu, Postal); Manufacturing and Assembly; Government Services; and Software Dev./Computer Prog.

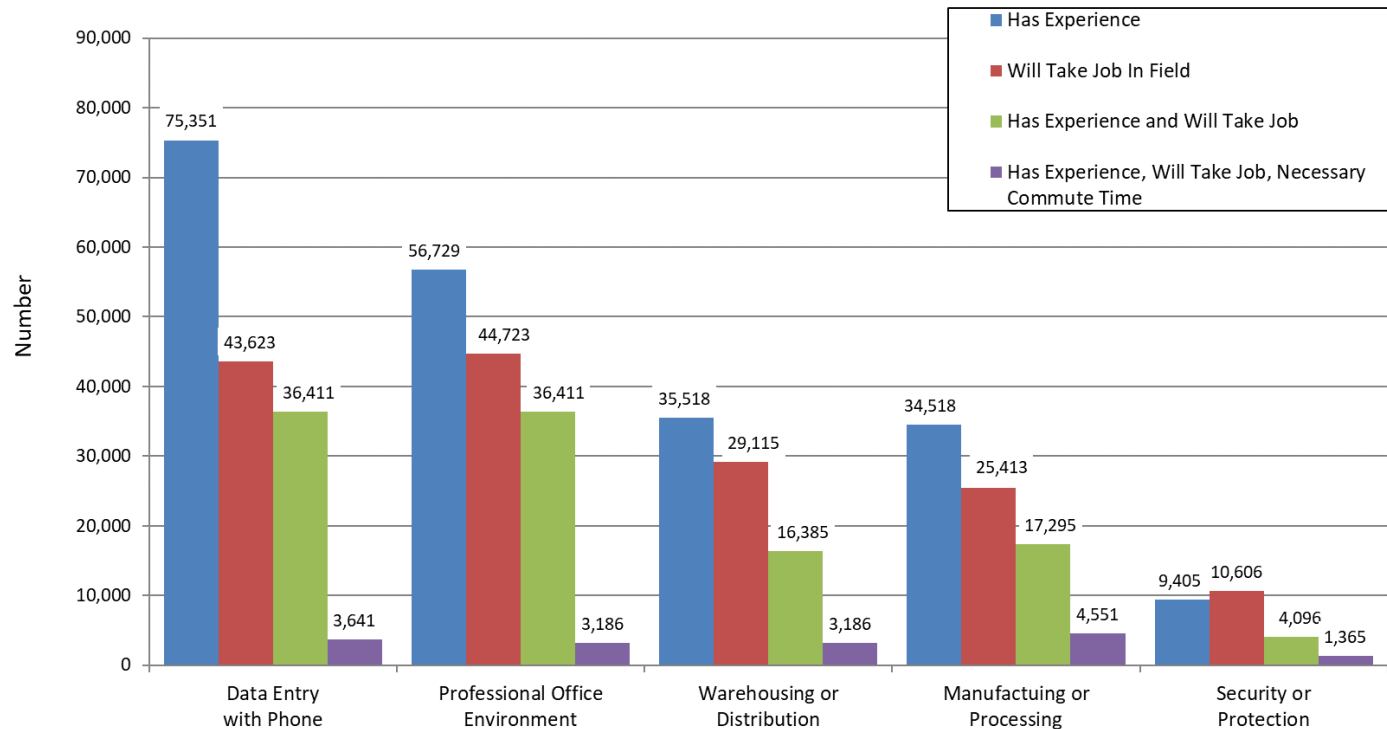
Figure 3: Current Work Experience Plus Previous Work or Training Experience



In addition to asking respondents to provide their current employment status and previous work/training experience (the results of which are shown in the previous table and figure), respondents were asked about the five specific employment fields 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. For example, the figure shows that an estimated 75,351 Pool members report having training and/or experience in data entry with telephone operation (blue column), although fewer (43,623 individuals) would consider employment in that field (red column).

The third column (green) shows the number who have experience/training in a field **and** are willing to work in that field again. The fourth column (purple) includes those who have training/experience in a field **and** are willing to take a job in that field **and** are within the necessary commute time for a new or different job (see Glossary for the definition of “necessary commute time”).

Figure 4: Work Experience/Willing to Work in Field



Survey respondents indicating that they had training or experience in distribution/warehousing or 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.

Figure 5 shows that 33% of those with distribution/warehousing experience moved materials or loaded trucks, 29% worked in inventory control or scheduling, 31% held administration or management positions, and 7% worked in some other area.

Figure 6 shows that 49% of those with manufacturing/processing experience worked in production, fabrication, or assembly. Another 25% worked in maintenance, shipping, or receiving; 18% held positions in administration, management, or sales; and 8% worked in some other area.

Figure 5: Experience/Training in Distribution Center or Warehouse

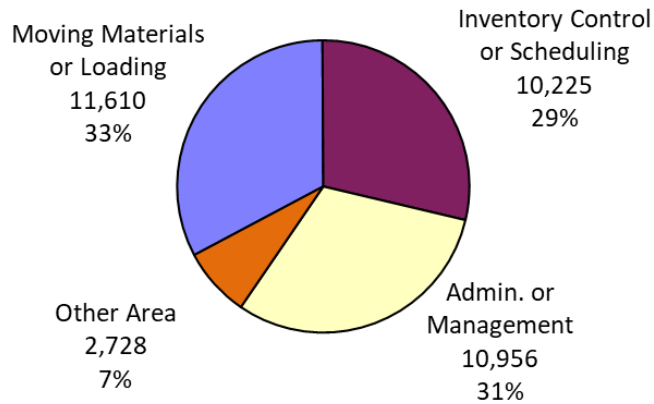
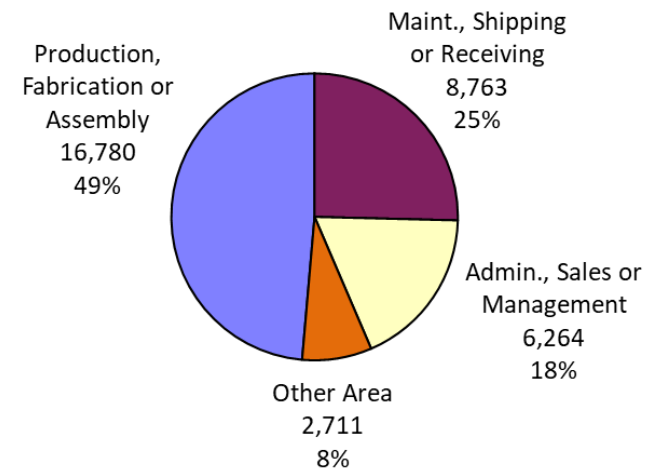


Figure 6: Experience/Training in Manufacturing or Processing



Working Available Labor Pool members were asked to provide the city or town of their workplaces. Figure 7 provides a visual representation of responses. Columbia was the most often mentioned location, followed by Jefferson City, Fulton, Moberly, Mexico, Hannibal, Glasgow, Bowling Greene, Boonville, Steedman, and New London.

Figure 7: Workplace Location Word Cloud



Educational Experiences and Job Satisfaction

Respondents who had completed at least “some college” 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.

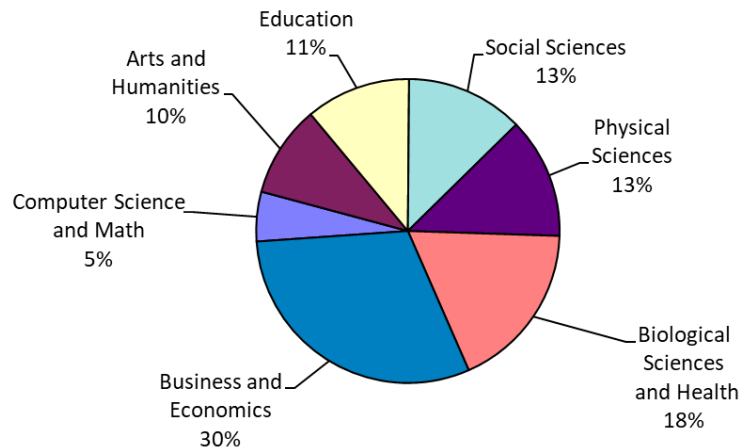
Education: Elementary and Secondary Teaching.

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

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

Figure 8 shows that the largest group of Available Labor Pool members studied business and economics (30%). Pool members also studied the biological sciences and health (18%), physical sciences (13%), social sciences (13%), education (11%), arts and humanities (10%), and computer science and math (5%).

Figure 8: 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 9 shows that 16% of these respondents have technical or community college experience. Table 4 shows that 26.3% report taking nursing or other healthcare related courses; 25.7% took general education courses; 19.3% studied HVAC, wiring, plumbing, welding, etc.; and 15.8% took business skills courses.

Figure 9: Community College Experience

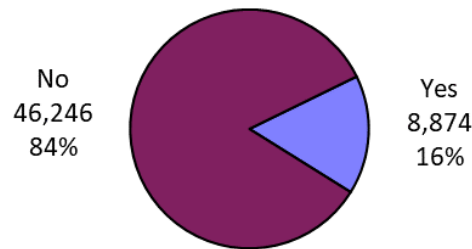


Table 4: Community College Area of Study

Area of Study	Number	Percent
Nursing, CNA, EMT, Healthcare Related	2,333	26.3
General Education	2,285	25.7
Maintenance and Repair Skills (HVAC, Wiring, Plumbing, Welding)	1,716	19.3
Business Skills (Appraising, Accounting)	1,407	15.8
Computer Skills (IT, CAD, GIS)	678	7.6
Manufacturing or Mechanical Skills	230	2.6
Office Skills (Office Technology, Customer Service)	226	2.6
Total	8,874	100

Figure 10 and Table 5 show responses to questions regarding job satisfaction. When presented with the statement “I enjoy the things I do,” for example, 55.8% “agree” and 30.9% “strongly agree.” When presented with the statement “I have a generally positive work environment,” 54.8% “agree” and 23.7% “strongly agree.”

Positive responses to “I have a reasonable workload” with 66% “agreeing or strongly agreeing” (combined) and “I receive fair pay” are similar with 63.4% “agreeing or strongly agreeing” (combined).

Slightly fewer respondents (60.6%) “agree or strongly agree” (combined) with “I have a fair chance at pay increase”

For the statement “I have a fair chance at a promotion,” 31.7% “agree or strongly agree” (combined) and 37.5% “disagree or strongly disagree” (combined).

Figure 10: Job Satisfaction Among Available Labor Pool Workers

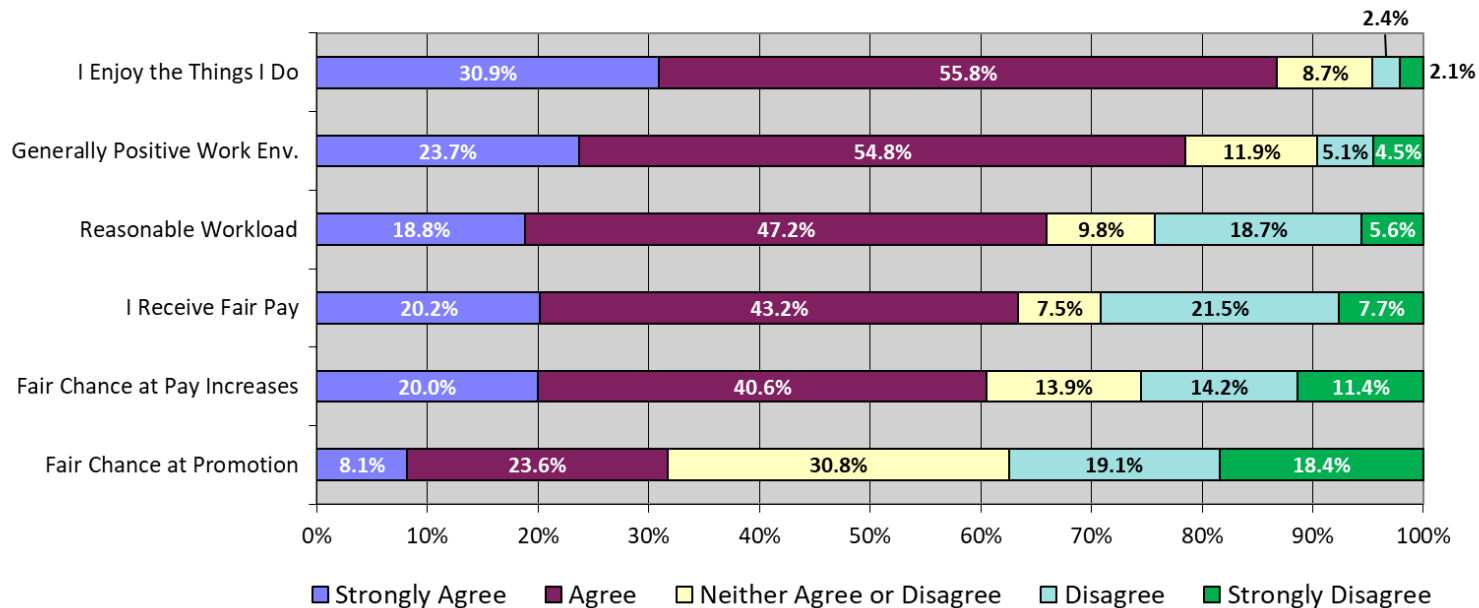


Table 5 shows combined “agree” and “strongly agree” (combined) responses of working Pool members and working non-Pool respondents. The table shows that 86.8% of the working Pool members “agree or strongly agree” with the statement regarding “enjoying the things I do,” while 90.1% of the working non-Pool respondents suggest the same.

The statement with the greatest disparity between working Pool members and working non-Pool respondents is “I receive fair pay.” About 63% of the working Pool members “agree or strongly agree” that they receive fair pay, while 82.4% (or 19.1% more) of the working non-Pool respondents feel the same way.

Table 5: Job Satisfaction Among Workers: Pool and Non-Pool Members

	Agree or Strongly Agree (combined)		<i>Difference</i>
	Desired Benefits of Working Pool	Benefits Received among Working Non-Pool	
	Percent	Percent	
I Enjoy the Things I Do	86.8	90.1	-3.4
Generally Positive Work Env.	78.5	83.2	-4.7
Reasonable Workload	65.9	73.3	-7.4
I Receive Fair Pay	63.3	82.4	-19.1
Fair Chance at Pay Increases	60.5	69.0	-8.4
Fair Chance at Promotion	31.7	26.8	4.9

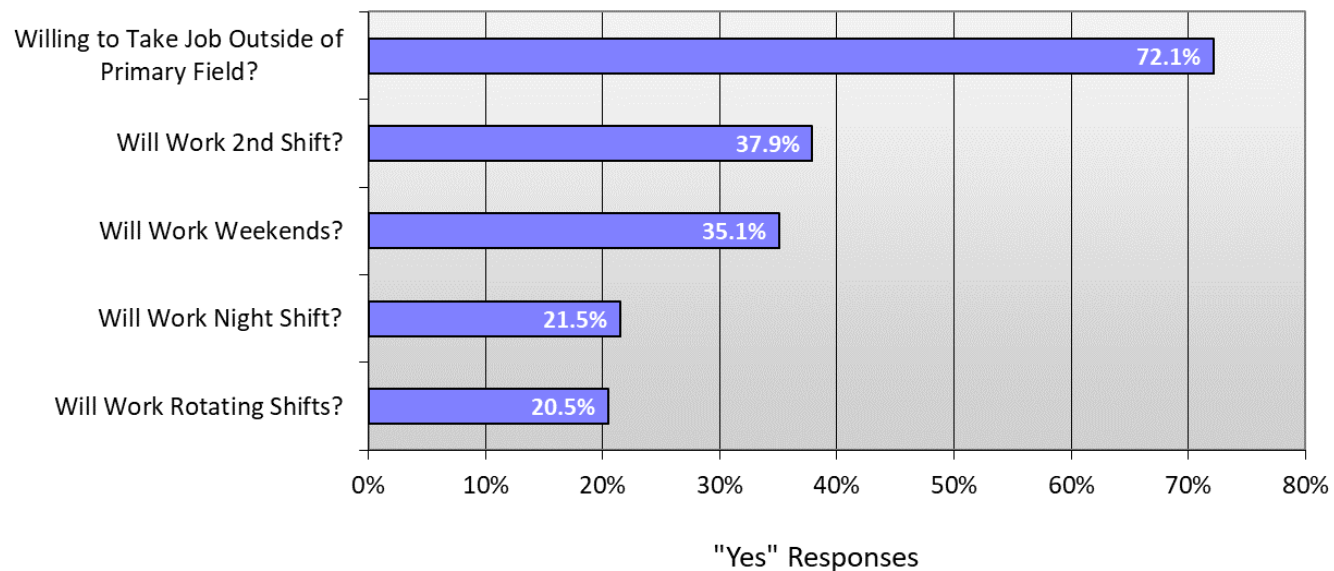
Considerations for Employment

An important consideration for many employers looking to locate or expand operations is whether workers are willing to pursue new employment opportunities outside of their primary fields. 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, however. Figure 11 shows that 72.1% of the Available Labor Pool are willing to accept positions outside of their primary fields of employment. The figure also shows responses to four questions regarding work shifts. Respondents were asked if they would be willing to work the 2nd shift, the night shift, rotating shifts, and weekends.

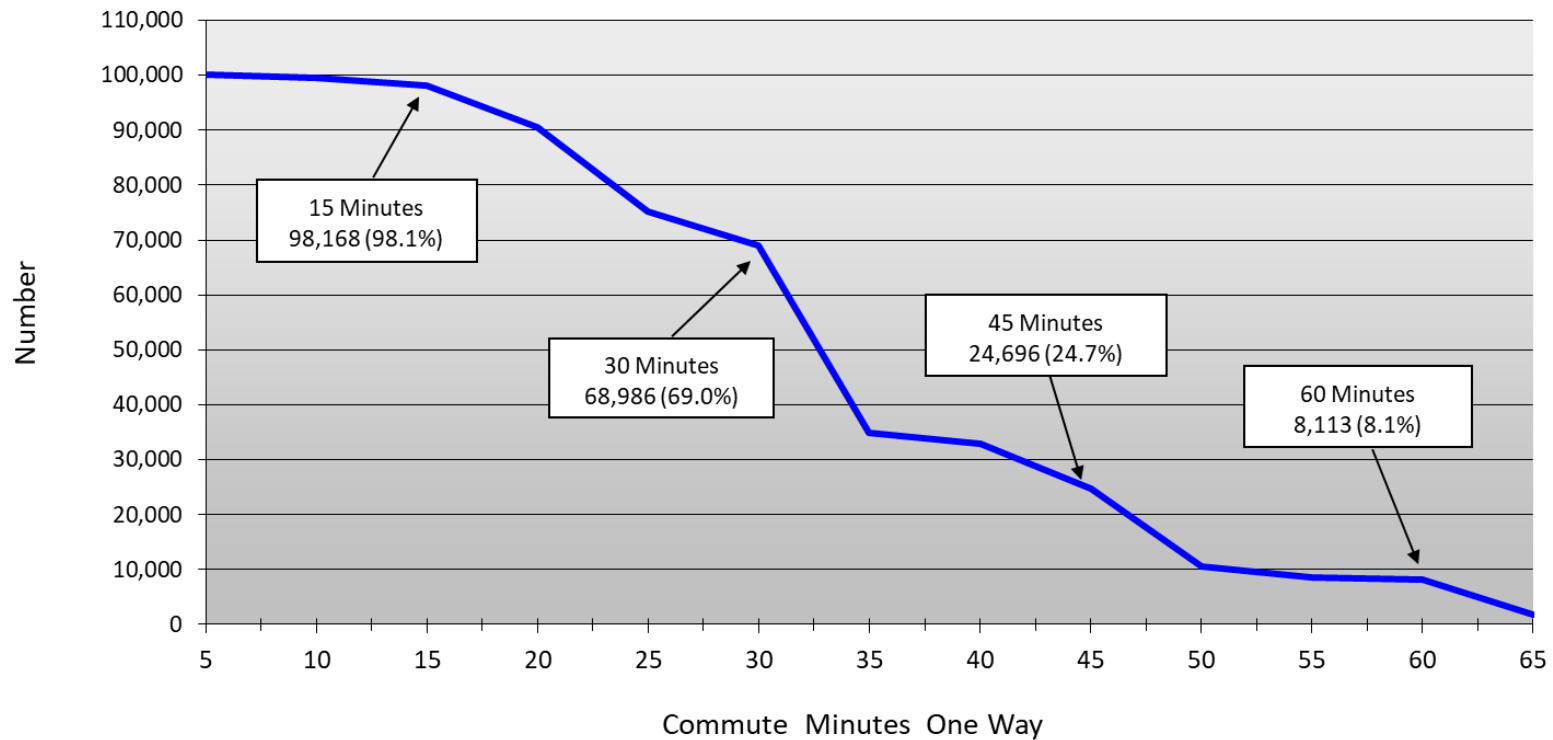
The figure shows that about 37.9% of the Available Labor Pool is willing to work the 2nd shift and 35.1% will work weekends. Fewer will work the night shift (21.5%) and/or rotating shifts (20.5%).

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 shows that 24.7% of the Pool will commute up to 45 minutes, one way, for a job. Many (69%) will commute for 30 minutes, one way, for a job, and almost all (98.1%) will commute up to 15 minutes, one way, for a job.

Figure 12: Available Labor by Commute Minutes



Available Labor Pool members were presented with various benefits and opportunities and were asked if each would be a “very important” consideration for taking a new job. Answer options included “yes” and “no.”

Figure 13 shows that the five most important benefits/opportunities are, in order, good salary or hourly pay, good retirement benefits, good vacation benefits, flexible hours/remote work, and good health benefits. Each of these benefits/opportunities are considered “very important” by 80% or more of the Available Labor Pool, each.

On-the-job training (OJT)/paid training/education benefits are “very important” for 62.3% of the Pool. Allowances for items like clothing or phones are “very important” for 34.3% of the Pool, and memberships or discount programs for products or services are “very important” for about 31.8% of the Pool. The least desired benefit is childcare assistance which is “very important” for 16.9% the of Pool.

Figure 13: Benefits/Opportunities Very Important to Change Jobs

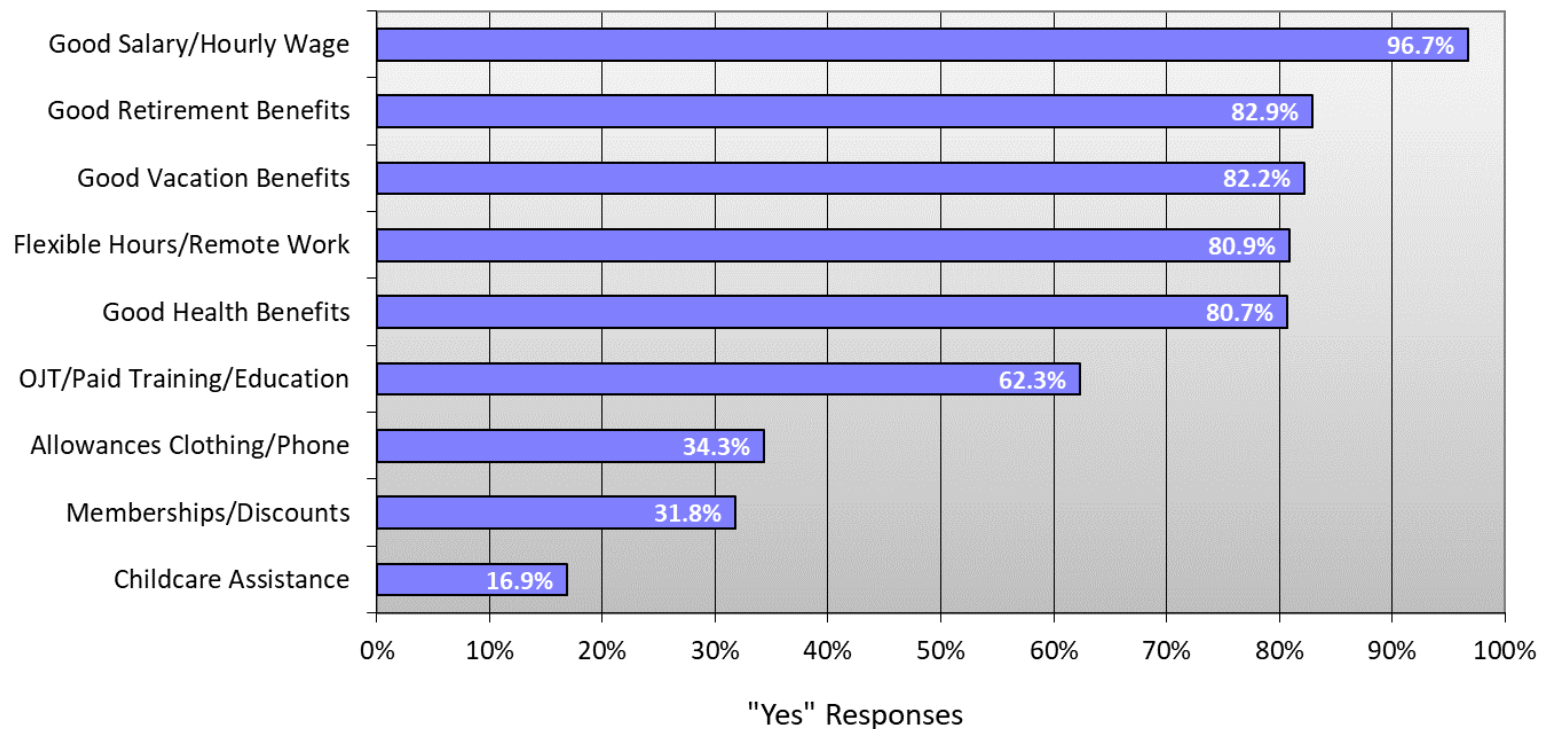


Table 6 shows information from the previous figure (left percent column) along with the percentages of working Pool members *who currently receive* the same benefits/opportunities (right percent column). The third column shows the difference between the two.

Table 6 shows that 96.7% of Pool members consider a good salary/hourly wage as “very important” for a new job, while 73.8% of working Pool members report that they currently receive a good salary/hourly wage. Similarly, 82.9% of the Pool consider good retirement benefits as “very important,” while 70.5% working Pool member report receiving good retirement benefits.

A larger percentage of working Pool members currently receive on-the-job training, paid training, education benefits (67.8%) than find the benefit/opportunity “very important” (62.3%). A larger percentage of working Pool members also receive memberships in discount clubs (39%) than consider that benefit/opportunity “very important” (31.8%).

Table 6: Desired Benefits/Opportunities and Currently Offered Benefits/Opportunities

	Very Important to Change Jobs Percent	Currently Received by Working Pool Members Percent	<i>Difference</i>
Good Salary/Hourly Wage	96.7	73.8	22.9
Good Retirement Benefits	82.9	70.5	12.4
Good Vacation Benefits	82.2	70.9	11.3
Flexible Hours/Remote Work	80.9	52.3	28.6
Good Health Benefits	80.7	75.9	4.8
OJT/Paid Training/Education	62.3	67.8	-5.5
Allowances Clothing/Phone	34.3	22.8	11.5
Memberships/Discounts	31.8	39.0	-7.2
Childcare Assistance	16.9	3.3	13.6

Table 7 (below and next page) presents benefits/opportunities and occupational categories (shown in Table 2). Benefit columns are ordered from left to right by the “Entire Available Labor Pool” row.

Table 7: Benefits/Opportunities and Occupational Categories

		(Percent of "Yes" Responses Shown)				
		Good Salary or Hourly Wage	Good Retirement Benefits	Good Vacation Benefits	Flexible Hours, Flex-time, Remote Work	Good Health Benefits
Current Employment Status	Entire Available Labor Pool	97%	83%	82%	81%	81%
	Construction, Labor, Cleaning, Delivery	100%	69%	81%	72%	72%
	Manufacturing, Maintenance, Trucking	100%	80%	90%	60%	90%
	Mechanic, Welder, Comp Tech	100%	100%	100%	86%	86%
	Crew Management, Protection Services	80%	90%	90%	80%	78%
	Customer Service	100%	88%	100%	82%	100%
	Clerical	100%	92%	85%	69%	71%
	Office or Dept Manager	100%	100%	100%	73%	80%
	Executive Management	100%	90%	89%	100%	89%
	Accounting, Programming, Engineering	100%	90%	84%	100%	79%
	Health Aid, Nurse	95%	95%	91%	86%	86%
	Education Aid, Teacher	91%	82%	80%	64%	91%
	Doctor, Professor, Attorney	93%	93%	75%	87%	69%
	Writer, Artist, Musician	100%	80%	80%	100%	80%
	Homemaker, Student, Unemployed	94%	72%	68%	74%	74%
Retired, Disabled	100%	59%	63%	85%	78%	

(Table continues to next page.)

Table 7: Benefits/Opportunities and Occupational Categories (Continued)

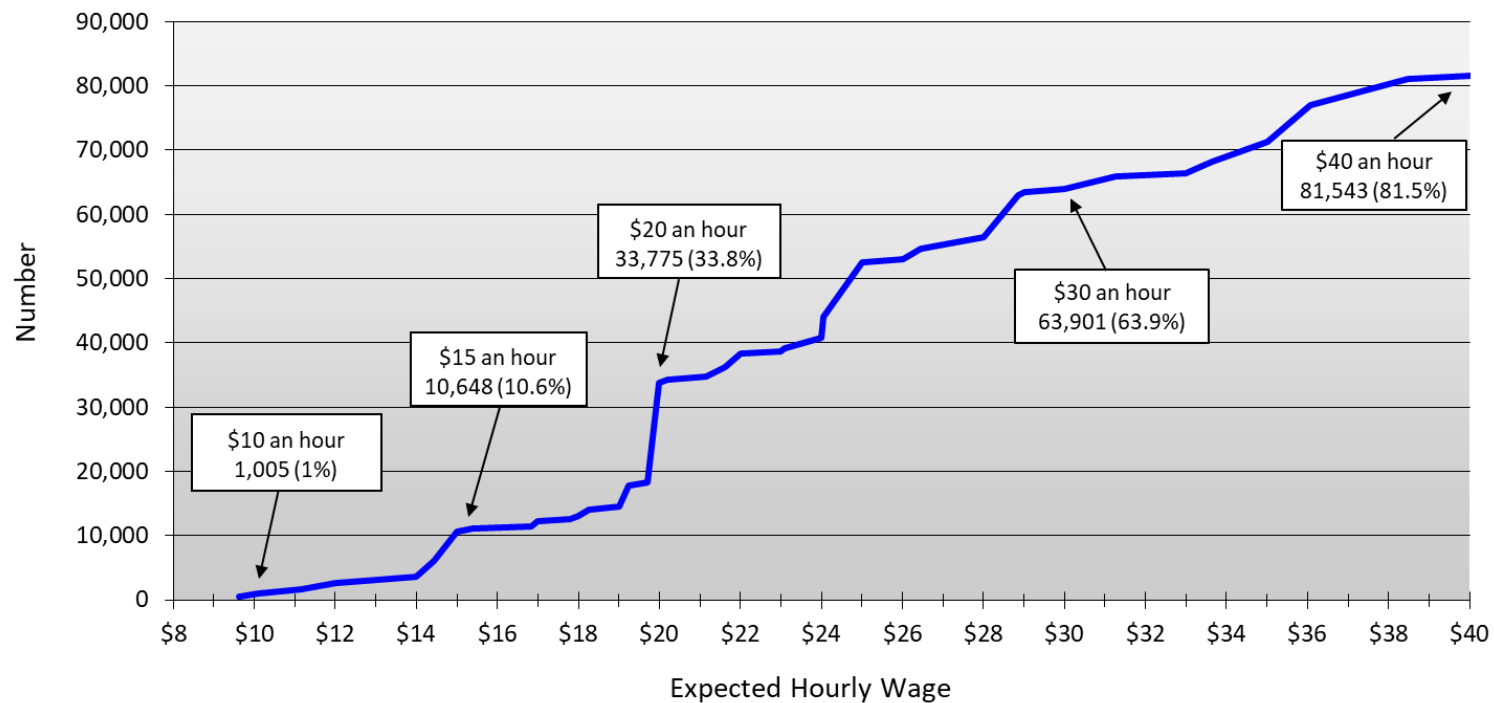
(Percent of "Yes" Responses Shown)				
OJT, Paid Training, Education	Allowances for Clothing, Phone, etc.	Memberships or Discounts at Stores/Gyms	Childcare Assistance	
62%	34%	32%	17%	Entire Available Labor Pool
64%	48%	42%	12%	Construction, Labor, Cleaning, Delivery
50%	33%	30%	10%	Manufacturing, Maintenance, Trucking
71%	71%	57%	14%	Mechanic, Welder, Comp Tech
60%	33%	50%	0%	Crew Management, Protection Services
82%	50%	41%	25%	Customer Service
69%	31%	23%	39%	Clerical
40%	20%	18%	10%	Office or Dept Manager
78%	20%	20%	10%	Executive Management
55%	30%	20%	11%	Accounting, Programming, Engineering
76%	46%	32%	19%	Health Aid, Nurse
73%	0%	10%	36%	Education Aid, Teacher
33%	13%	31%	13%	Doctor, Professor, Attorney
40%	20%	20%	20%	Writer, Artist, Musician
89%	28%	28%	17%	Homemaker, Student, Unemployed
48%	37%	41%	15%	Retired, Disabled

Current Occupational Category

Wage Expectations

The expected wage for a new or different job is another important consideration for employers and economic developers. Figure 14 shows expected wages for members of the Available Labor Pool. It is estimated that about a third (33.8%) of the Available Labor Pool is available for an hourly wage of \$20². Almost two-thirds (63.9%) of the Pool are available at \$30 per hour.

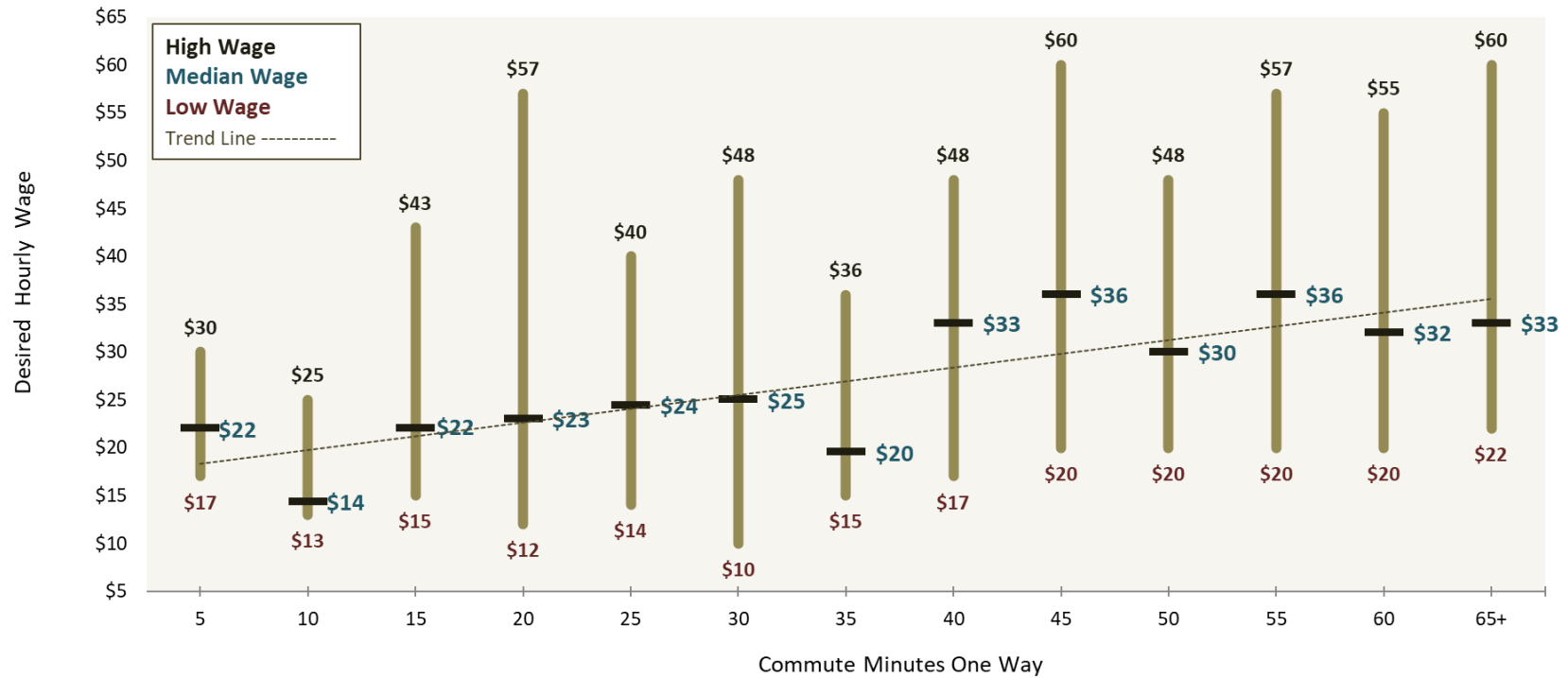
Figure 14: Available Labor by Expected Hourly Wage



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

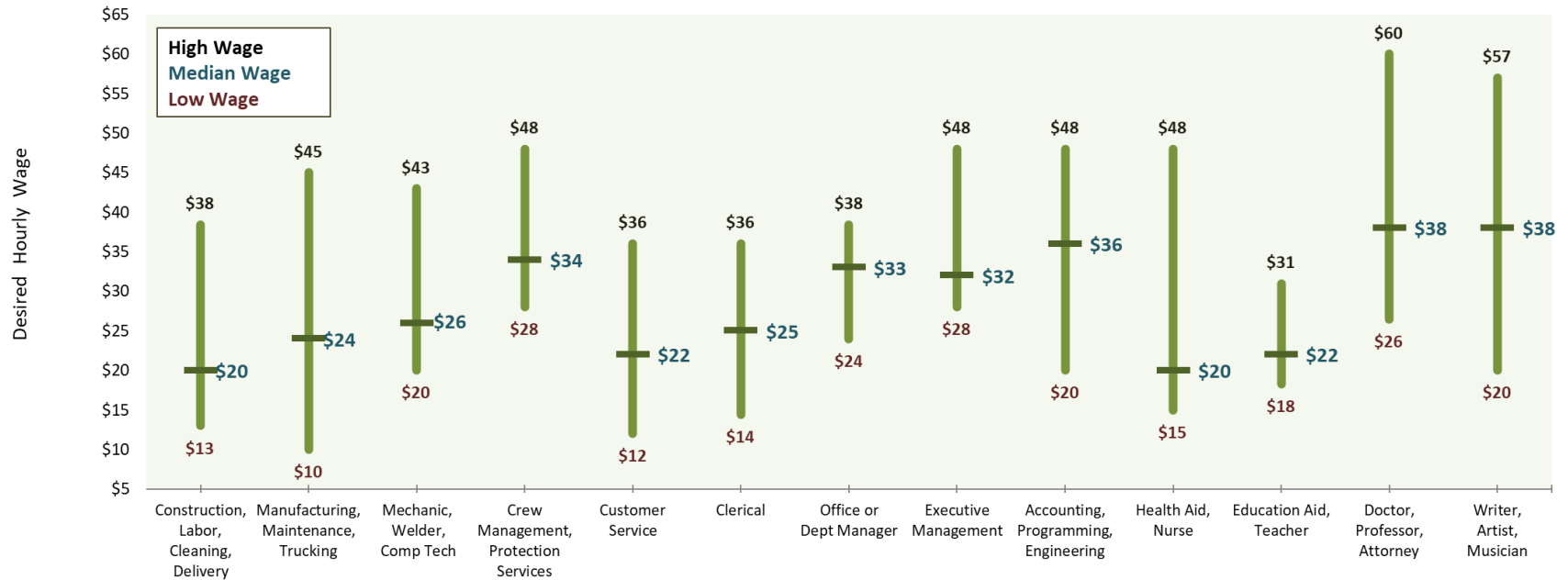
The figure below shows expected hourly wages and the number of minutes Pool members are willing to commute, one way, for a new job. The range of wages (high and low) and median wages are shown in five minute increments. In general, respondents expecting higher wages are willing to commute for more minutes than those expecting lower wages.

Figure 15: Expected Hourly Wage by Minutes Willing to Commute One Way



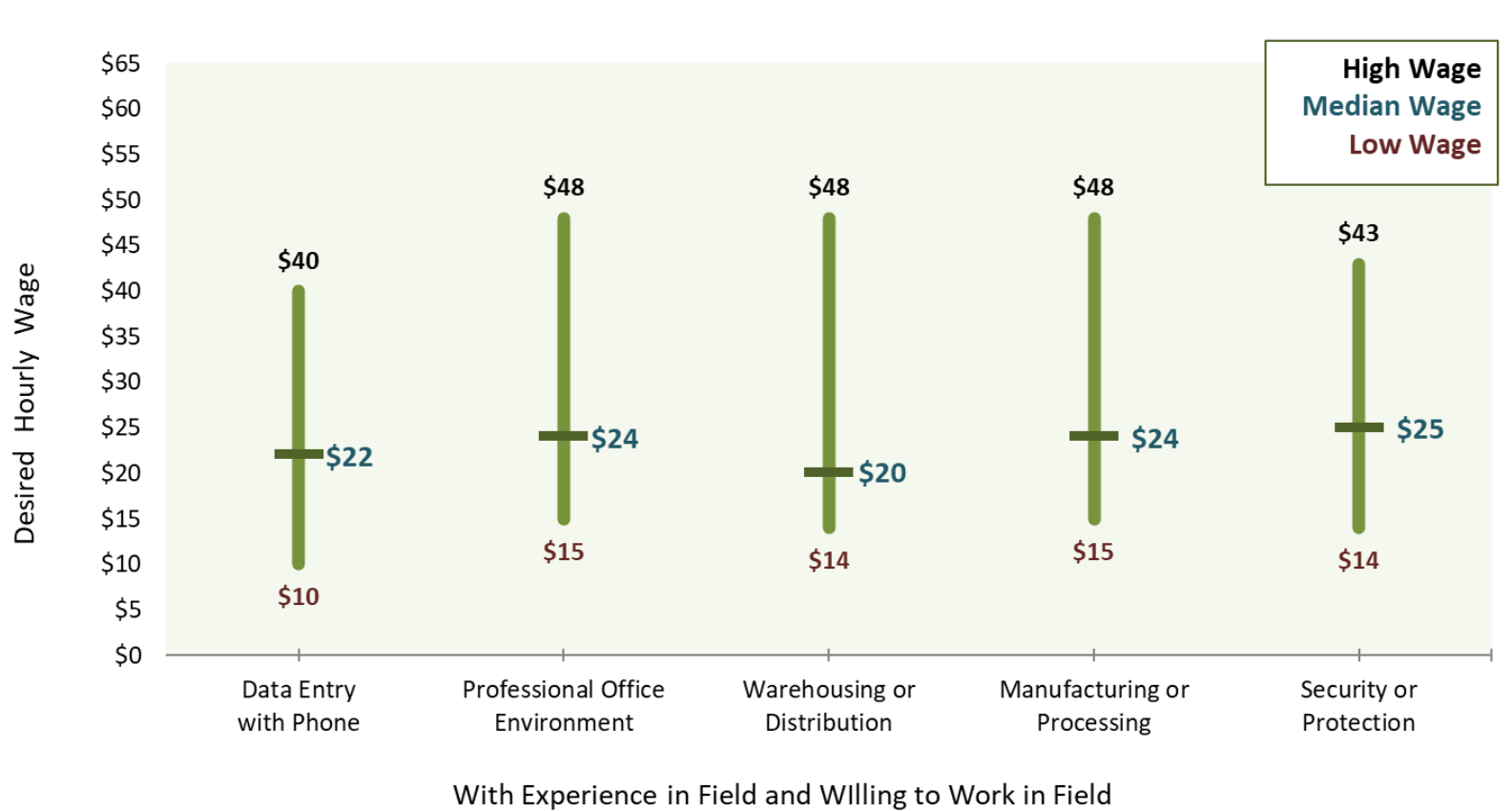
The figure below shows the median and range of expected hourly wages by occupational category. The lowest low expected wages tend to be associated with categories that might be considered entry-level by some people. The highest low wages tend to be associated with jobs that generally require extensive education and training.

Figure 16: Expected Hourly Wage by Current Occupational Category



The figure below shows the median and range of expected hourly wages for respondents who have experience in a field **and** who are willing to work again in that field (as shown in Figure 4).

Figure 17: Expected Hourly Wage Among Those With Experience and Willing to Work in Field



Subsets of the Available Labor Pool

The previous portion of the report addressed the entire Available Labor Pool. This section examines three subsets of the Available Labor Pool. Each provides a different look at the Available Labor Pool, and they are not mutually exclusive. The three subsets are: those residing *Within the Necessary Commute Time*, the *Underemployed Available Labor Pool Workers*, and the *Potential Entrepreneurs in the Available Labor Pool*.

Subset 1: Within Necessary Commute Time

To present an even more refined picture of the workers who would seriously consider a new employment opportunity, the data in this section includes *only those respondents* who are determined to reside “within the necessary commute time.” “**Necessary Commute Time**” is defined as a commute time stated by the respondent that is equal to or greater than the time necessary to commute from their Zip Code of residence to the Zip Code at the center of the labor basin. For example, a pool member willing to travel for 30 minutes, one-way, for a job opportunity and who lives 15 minutes from the center of the labor basin is considered to be “within the necessary commute time” for a new job.

Figure 18 shows that 1,459 Pool members within the necessary commute time are available for a job at \$15 per hour. At \$20 an hour, the available labor jumps to 7,646, and by \$30 an hour, the available labor climbs to 13,974. The figure shows that 16,674 Pool members within the necessary commute time are available at \$40 an hour.

The figure also highlights various “wage preference plateaus” that may be of interest to current and potential employers. A wage preference plateau is a situation in which an increase in wage results in an insignificant or small increase in available labor. As noted, 7,646 members of this subset are interested in a job at \$20.00 an hour. At \$21.00 an hour there are an estimated 7,958 individuals available. So, while there is certainly an increase in the number of available workers at this higher wage rate, the increase is 312 individuals – a relatively small increase given the overall size of this subset of the Available Labor Pool.

Additional wage plateaus can be seen between \$21 and \$22 an hour (an increase of 300 individuals) and between \$29 and \$33 per hour (an increase of 530 individuals).

Figure 18: Available Labor by Hourly Wage for Within Necessary Commute Time

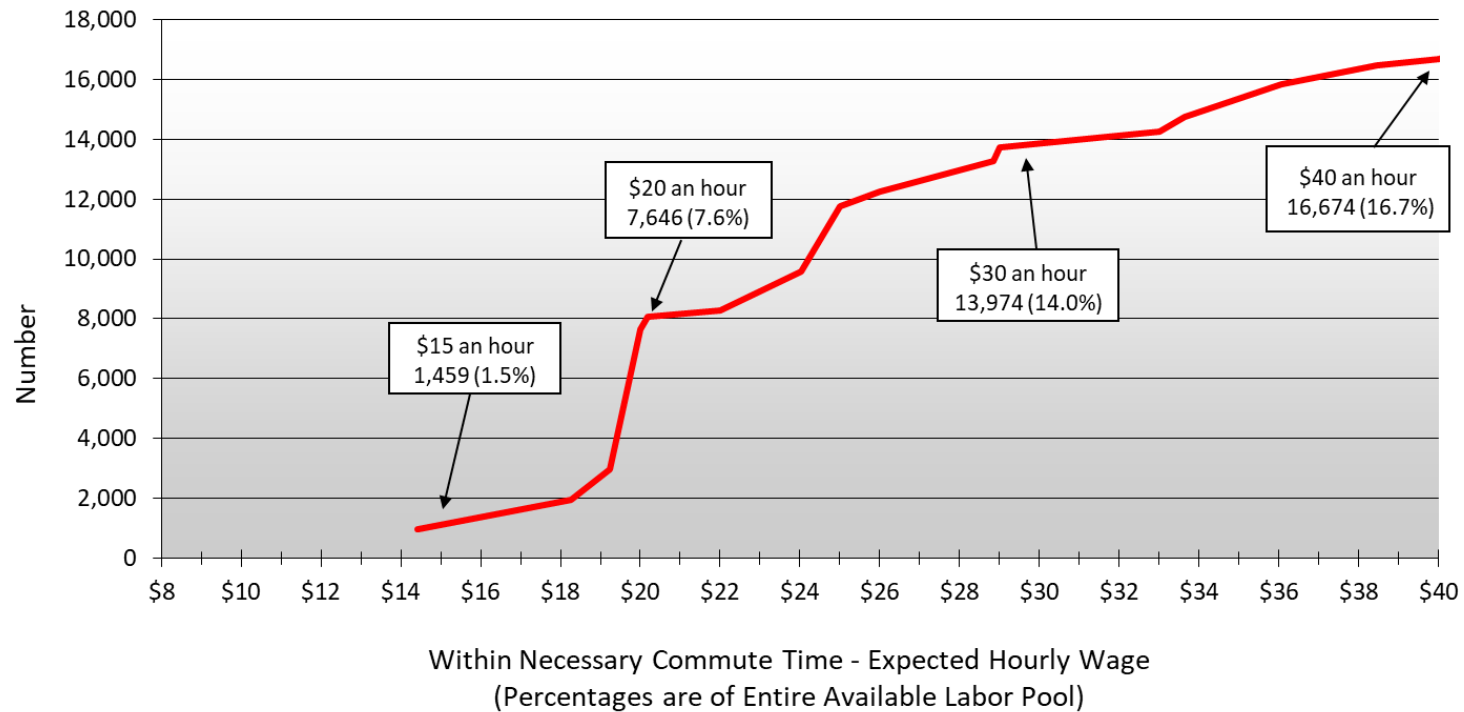


Table 8 shows expected wages the four main occupational sectors (employed only) of those included in the necessary commute time subset. The table shows that 34% of the general laborers within the necessary commute time will take a new or different job with an hourly wage of \$16 (all things being equal), while 83% will take a job with an hourly wage of \$24.³

³ It is assumed that a job seeker would, if offered, take a higher hourly wage than expected. Hence cumulative percentages are provided.

Of high skill laborers within the necessary commute time, none will take a job with an hourly wage of \$16, while 29% will take a job with an hourly wage of \$24.

Among service sector workers within the necessary commute time, 30% are available for job with an hourly wage of \$16, while 76% are available at an hourly wage of \$24. Finally, no professional workers are available for a job with an hourly wage of \$16, while 29% are available for an hourly wage of \$24.

Table 8: Wage Expectations by Sector for Within Necessary Commute Time

	Within Necessary Commute Time							
	General Labor		High Skill Labor		Service Sector		Professional	
	(N = 6) (+/- 40.7% MoE)		(N = 6) (+/- 39.3% MoE)		(N = 17) (+/- 24.0% MoE)		(N = 3) (+/- 52.8% MoE)	
	Number	Cumulative	Number	Cumulative	Number	Cumulative	Number	Cumulative
\$40 or More	2,641	100%	2,826	100%	7,599	100%	1,565	100%
Up to \$40	2,186	83%	2,826	100%	7,599	100%	1,105	71%
Up to \$36	2,186	83%	1,914	68%	7,599	100%	921	59%
Up to \$32	2,186	83%	1,914	68%	7,144	94%	921	59%
Up to \$28	2,186	83%	1,459	52%	6,689	88%	921	59%
Up to \$24	2,186	83%	820	29%	5,779	76%	460	29%
Up to \$20	1,730	66%	0	0%	4,414	58%	0	0%
Up to \$16	911	34%	0	0%	2,275	30%	0	0%
Up to \$12	455	17%	0	0%	1,365	18%	0	0%
Up to \$7	0	0%	0	0%	0	0%	0	0%

Table 9 shows the expected wages for general labor and service sector workers who are *willing to change fields of employment* and thus are presumably potential workers for either of these two sectors. Specifically, the table *includes* respondents who:

- 1 are willing to travel the necessary commute time from his/her community to the center of the labor basin, *and*
- 2 are willing to change their primary field of employment, *and*
- 3a are employed as general laborers or service sector employees, *or*
- 3b are currently non-employed.

Available Labor Pool members meeting these criteria are called “transferable workers.” Table 8 (previous page) shows data representing each occupational sector independently and does not include non-working pool members. Table 9, on the other hand, allows a general laborer or service sector worker to be classified in both sectors if he or she indicates a willingness to change fields of employment. Additionally, it is assumed that a non-working pool member will take a job (all things being equal) in either the general labor sector or the service sector.

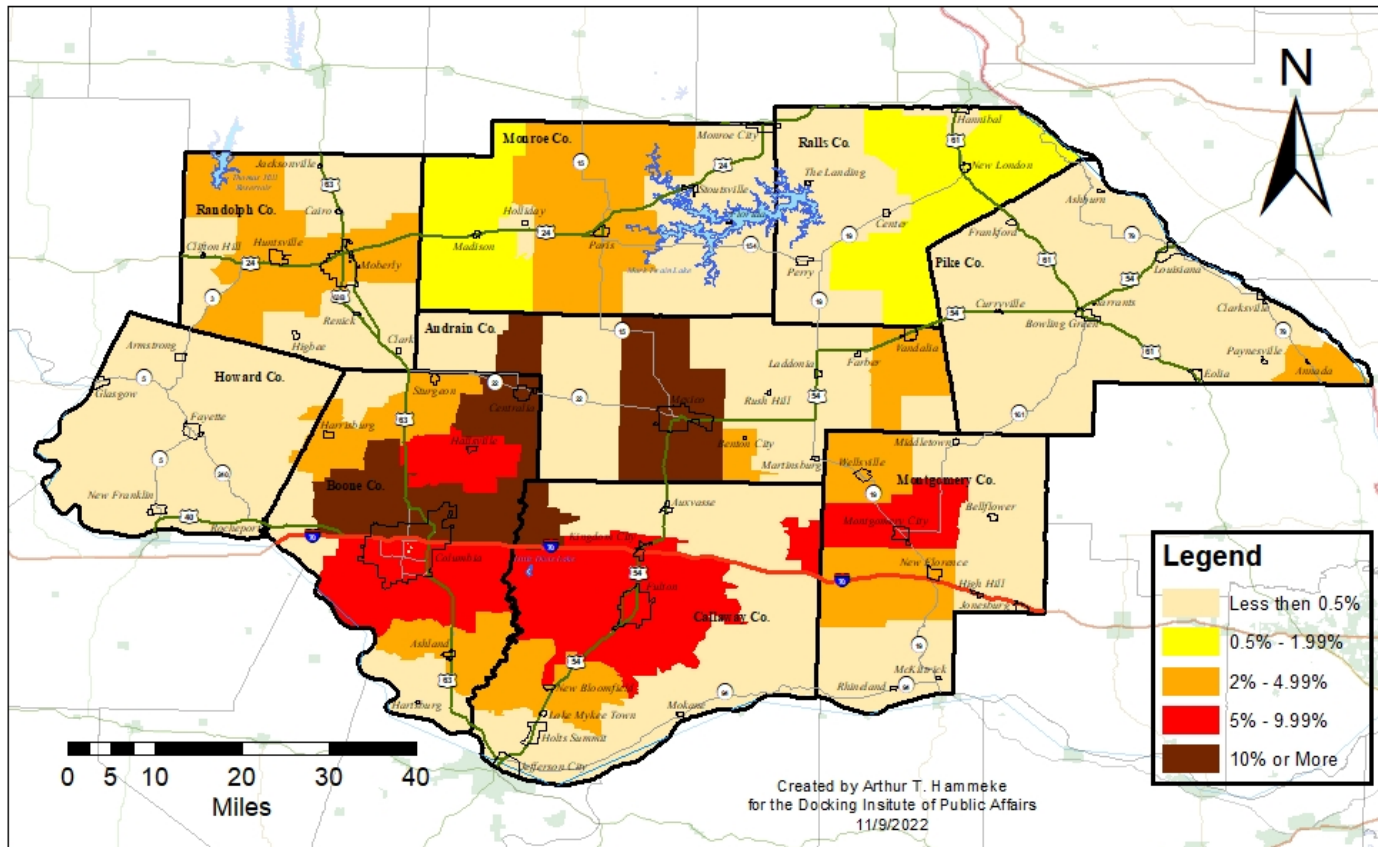
High skill and professional workers are excluded from Table 9 because it is presumed that, as a general rule, people in occupations such as machinist, electricians, medical doctors, lawyers, engineers, professors, etc... are unlikely to transfer into lower-skill general labor and service/support occupations. It is also presumed that, because professional and highly skilled occupations require extensive education and/or training, general laborers and service sector workers are unable to transfer to high skill labor or professional positions - at least in the near term.

Table 9: Expected Hourly Wages of Transferable Workers

	Within Necessary Commute Time			
	Transferrable General Labor		Transferrable Service Sector	
	(N = 31) (+/- 17.6% MoE)		(N = 30) (+/- 17.9% MoE)	
	<i>Number</i>	<i>Cumulative</i>	<i>Number</i>	<i>Cumulative</i>
\$40 or More	14,109	100%	13,654	100%
Up to \$40	14,109	100%	13,199	97%
Up to \$36	13,654	97%	12,289	90%
Up to \$32	12,744	90%	11,834	87%
Up to \$28	11,834	84%	11,378	83%
Up to \$24	9,103	65%	8,648	63%
Up to \$20	5,007	35%	4,551	33%
Up to \$16	2,731	19%	2,731	20%
Up to \$12	910	6%	455	3%
Up to \$7	0	0%	0	0%

Available Labor Pool members residing within the necessary commute time in the Mexico/Audrain County Labor Basin are included in Map 3. The map shows that most counties contains Zip Codes areas that contain at least 2% percent of the “within the necessary commute time” subset of the Pool. The exception is Howard County, which shares .5% or less of the subset. Zip Code areas in Audrain, Boone, Callaway, Monroe, Montgomery, Pike, and Randolph counties share up to 5% of the subset (orange areas on the map). Zip Code areas in Boone, Callaway, and Montgomery share up to 10% of this subset (red areas on the map). Zip Code areas in Audrain, Boone and Callaway share 10% or more of this subset (see darkest shaded areas on the map).

Map 3: Percent within Necessary Commute Time by Zip Code



Subset 2: Underemployed Available Labor Pool Workers

Underemployment — individual characteristics that exceed those required for 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.⁴ 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 79,442 *employed members* of the Available Labor Pool (shown in Figure 19), 29% answered “yes” (in Figure 20) to one or more of the questions presented above. These Pool members are considered “underemployed.” Figure 20 shows that the underemployed workers equal an estimated 22,792 of the employed members of the Pool.

Figure 19: Employed and Unemployed Members of the Available Labor Pool

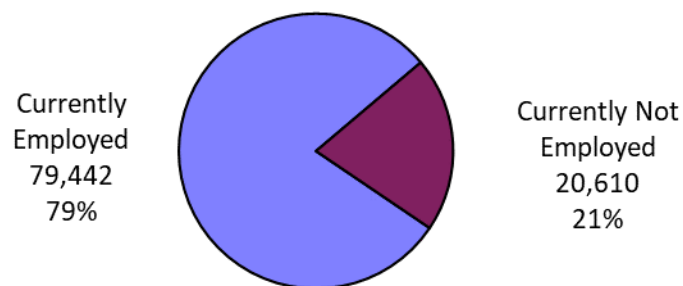
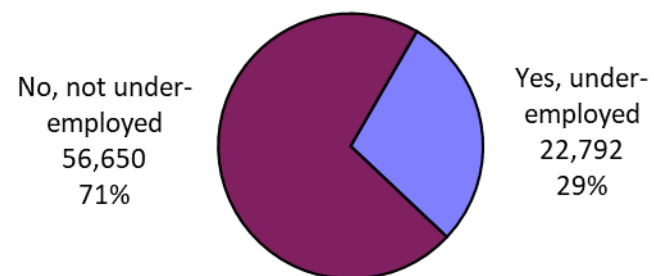


Figure 20: Underemployed Workers



⁴ “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 21 shows the percentages of the positive responses (i.e., “yes” answers) to the various measures of underemployment. More than a quarter (27%) of this subset of the Available Labor Pool consider themselves underemployed because they possess education levels exceeding those needed for their current jobs, while about 23.1% consider themselves underemployed because they possess skills that are not being used currently on the job. When asked if they are underemployed because they earned more money at a past but similar job, 11.8% responded “yes,” while 6.8% feel they are not able to work as many hours as they would like at their job.

Figure 21: Reasons for Underemployment

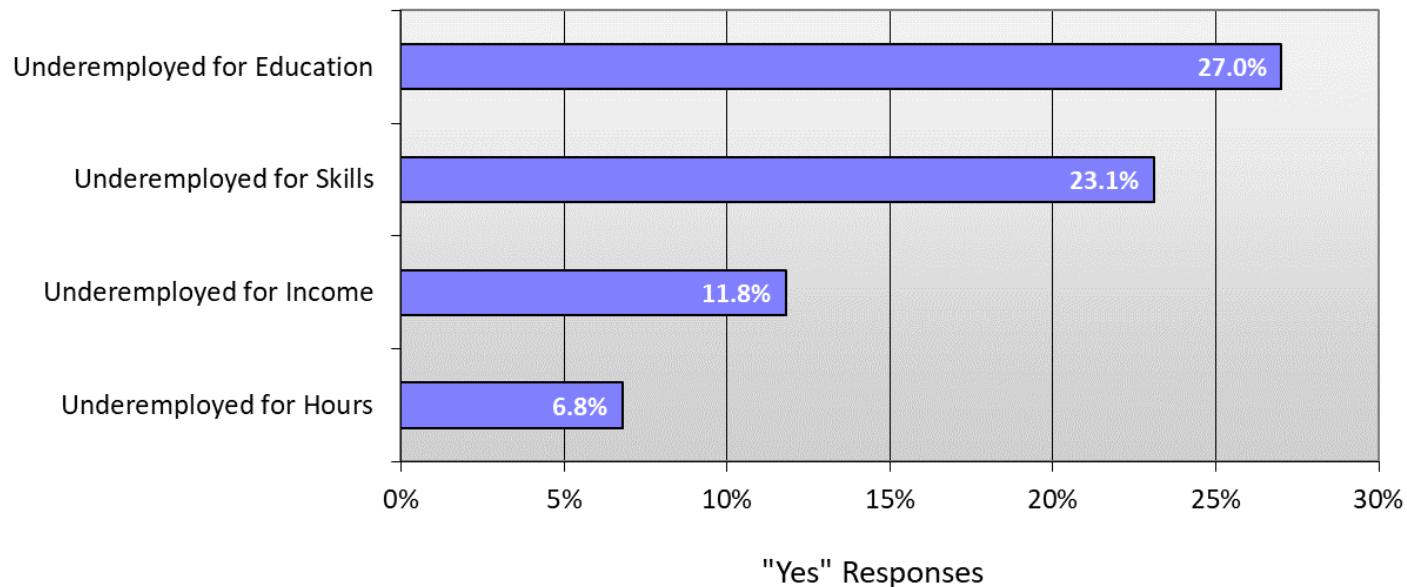


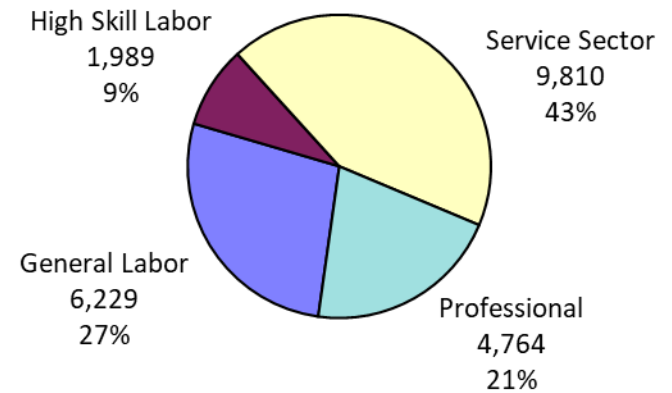
Table 10 and Figure 22 show some characteristics of the underemployed members of the Available Labor Pool. The table shows the education levels of the underemployed. Almost 84% of the underemployed workers have at least some college experiences, while all (100%) have at least a high school diploma.

Figure 22 shows that general laborers make up 27% of the underemployed workers, while high skill laborers make up 9%. Service sector workers make up the largest percentage of underemployed workers at 43%, and professionals make up 21%.

Table 10: Highest level of Education Achieved Among Underemployed

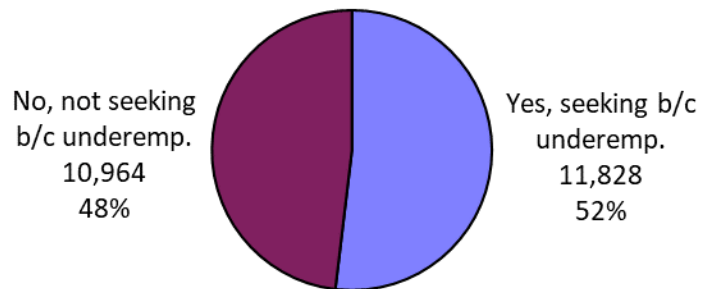
	Number	Percent	Cumulative Percent
Doctoral Degree	798	3.5	3.5
Masters Degree	5,246	23.0	26.5
Bachelors Degree	8,107	35.6	62.1
Associates Degree	2,186	9.6	71.7
Some College	2,752	12.1	83.8
High School Diploma Only	3,702	16.2	100
Less HS Diploma	0	0.0	
Total	22,792	100	

Figure 22: Occupational Sectors of Underemployed Workers



Underemployed workers were asked if they “are available or a new or different job because they are underemployed?” Figure 23 shows that 52% (or 11,828 individuals) of the underemployed workers are seeking new employment to address underemployment.

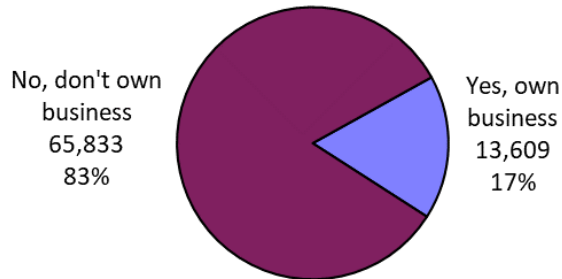
Figure 23: Seeking New Employment to Address Underemployment



Subset 3: Potential Entrepreneurs in the Available Labor Pool Workers

The desire for self-employment may be another indicator of the types of workers available in the labor basin. Figure 24 shows that of the 100,052-member Available Labor Pool, 17% report owning their own businesses.

Figure 24: Business Ownership



Non-business-owning members of the Available Labor Pool (estimated to be 65,833 or 83% of the Pool) were asked the question: “In the past few years have you seriously thought about starting your own business and making it your full-time job?” Figure 25 shows that 18% responded “yes.” These Pool members are considered “potential entrepreneurs.”

Figure 25: Seriously Thought About Starting Own Business

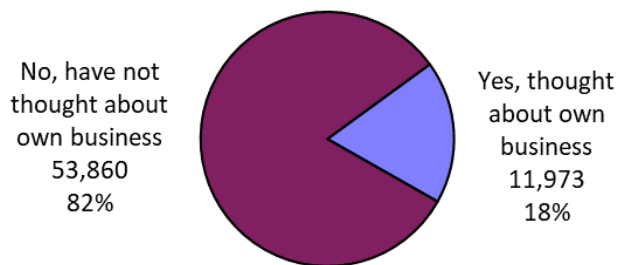


Table 11 and Figures 26 and 27 show some characteristics of the *potential entrepreneurs*. The table shows that 88.6% of the potential entrepreneurs have some college experience and 69.5% have at least Bachelor’s degrees.

Table 11: Highest Level of Education Achieved Among Potential Entrepreneurs

	Number	Percent	Cumulative Percent
Doctoral Degree	927	7.7	7.7
Masters Degree	3,314	27.7	35.4
Bachelors Degree	4,074	34.0	69.5
Associates Degree	1,619	13.5	83.0
Some College	671	5.6	88.6
High School Diploma Only	1,367	11.4	100
Less HS Diploma	0	0.0	
Total	11,973	100	

Figure 21 shows that general laborers make up 17% of the potential entrepreneurs, while high skill laborers make up only 2%. Service sector workers make up 46%, and professionals make up 27%. Non-working Pool members make up 8% of the potential entrepreneurs.

Figure 26: Occupational Sectors of Potential Entrepreneurs

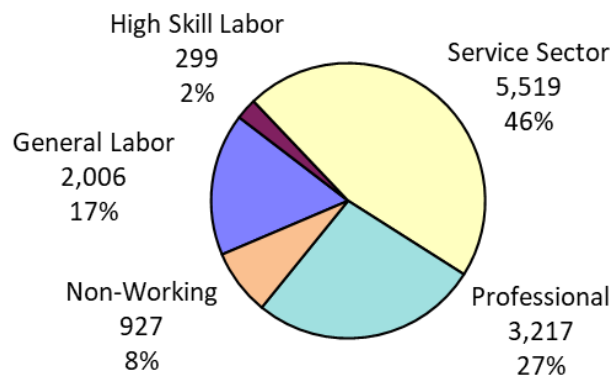
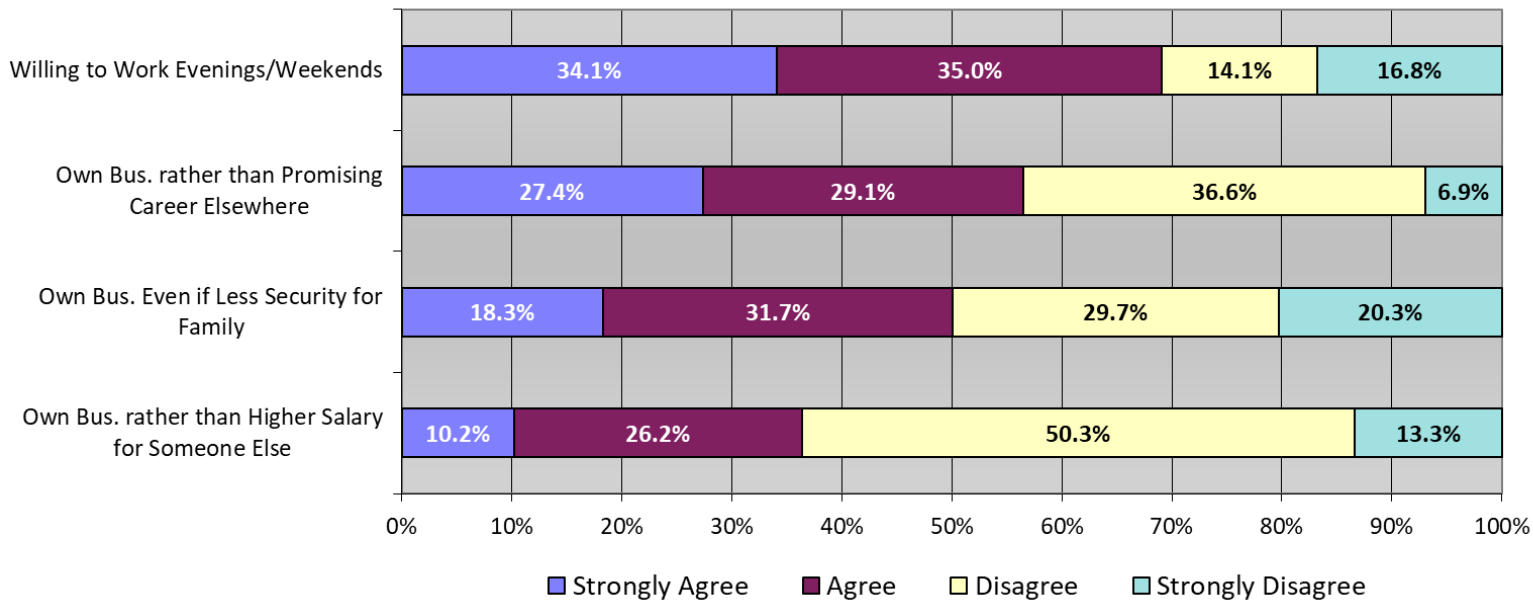


Figure 27 shows the strength of desire to own a business. About a third (35%) “agree” and 34.1% “strongly agree” with a statement asking if they “are willing to work evenings or on weekends to make their business a success.”

About 29% “agree” and 27.4% “strongly agree” with a statement asking if they “would rather own their own business than pursue a promising career elsewhere.” About a third (36.6%) “disagree” with this statement.

Half of the potential entrepreneurs “agree or strongly agree” (combined) and “disagree or strongly disagree” (combined) with the statement “I am willing to have less security for my family in order to operate my own business.” More than half (63.6%) “disagree or strongly disagree” (combined) with the statement “I would rather own their own business than earn a higher salary working for someone else.”

Figure 27: Strength of Desire for Own Business among Potential Entrepreneurs



Comparative Analysis: 2020 and 2022 Reports

The Docking Institute of Public Affairs conducted a similar labor study in the Mexico/Audrain County Labor Basin in 2020. This section of the report compares some of the data collected from 2020 and 2022.

Table 12 shows population, Civilian Labor Force (CLF), employment, average unemployment rate, and Available Labor Pool data presented in both reports.

The population of the Mexico/Audrain County Labor Basin increased by an estimated 4,488 people in the past two years (from 334,149 to 338,637). The Civilian Labor Force remained rather steady at 168,422 and 168,256, as did the number of employed individuals (163,733 and 162,748, respectively). The unemployment rates were recorded as 2.78% and 3.27%.

The table also shows the Available Labor Pools for both years. There are about 6,400 fewer Pool members in 2022 than in 2020.

Table 12: Key Population and Employment Indicators

Mexico / Audrain County Labor Basin	2020 Study	2022 Study
Labor Basin Population	334,149	338,637
Civilian Labor Force	168,422	168,256
Employed	163,733	162,748
Average Unemployment Rate	2.78%	3.27%
Available Labor Pool	106,424	100,052

Figure 28 shows that there were more “employed and looking” Pool members in 2020 than in 2022, but more “employed but interested” Pool members in 2022 than in 2020.

Figure 28: Available Labor Pool Comparison

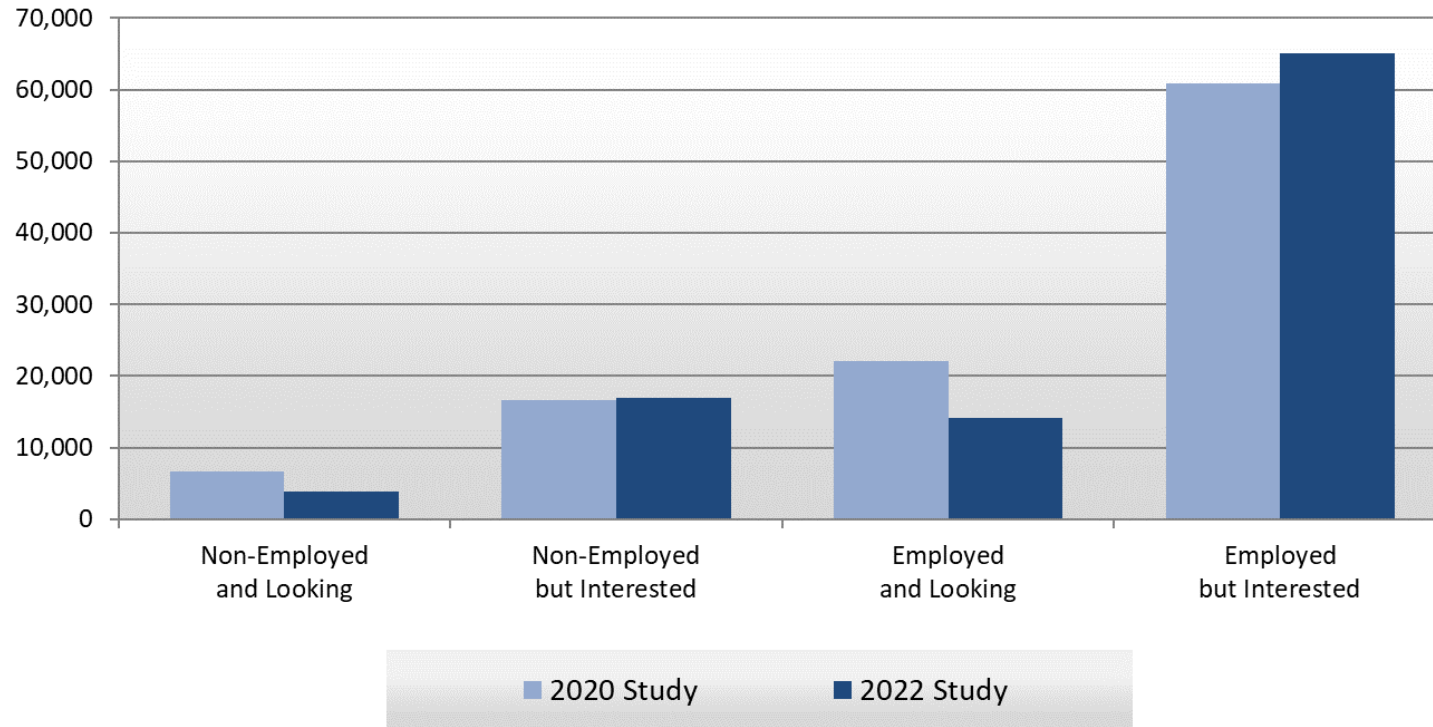


Table 13 compares occupational sectors and education levels from both studies. Professional positions make up 15.6% of the 2020 Pool and 22.9% of the 2022 Pool. The percentage of Pool members with at least some college experience was 73% in 2020 and is 84.6% in 2022.

Table 13: Available Labor Pool Occupational Sectors and Education Levels Comparison

Occupational Sector	2020 Study		2022 Study			
	Number	Percent	Number	Percent		
General Labor	19,036	17.9	16,097	16.1		
High Skill Labor	7,830	7.4	7,536	7.5		
Service Sector	38,702	36.4	32,893	32.9		
Professional	16,550	15.6	22,915	22.9		
Non-Working*	24,308	22.8	20,610	20.6		
<i>Total</i>	<i>106,424</i>	<i>100</i>	<i>100,052</i>	<i>100</i>		
		Cumulative		Cumulative		
Highest Education	Number	Percent	Percent	Number	Percent	Percent
Doctoral Degree	4,462	4.2	3.4	8,381	8.4	8.4
Masters Degree	15,000	14.1	14.3	21,187	21.2	29.6
Bachelors Degree	36,180	34.0	40.9	33,495	33.5	63.0
Associates Degree	14,206	13.3	51.1	9,925	9.9	73.0
Some College	17,623	16.6	73.0	11,701	11.7	84.6
High School Diploma	15,182	14.3	96.6	15,363	15.4	100.0
Less HS Diploma	3,772	3.5	100	0	0.0	0
<i>Total</i>	<i>106,424</i>	<i>100</i>		<i>100,052</i>	<i>100</i>	

* Non-working occupational status for 2022 includes survey respondents whose occupational status was not provided.

Table 14 shows responses to the question asking if the respondent was “willing to take a job outside of your primary field of employment or experience.” The table also shows responses to questions regarding various work shifts. In 2022, the 2nd shift/night shift question was split into two questions (one addressing the 2nd shift and one addressing the night shift).

The table shows that 82.8% in 2020 and 72.3% in 2022 are willing to take jobs outside of their primary fields of employment or experience. The table also shows a larger percentage of 2020 Pool members (48.2%) than 2020 Pool members (32.4%) is willing to work weekends for a new job.

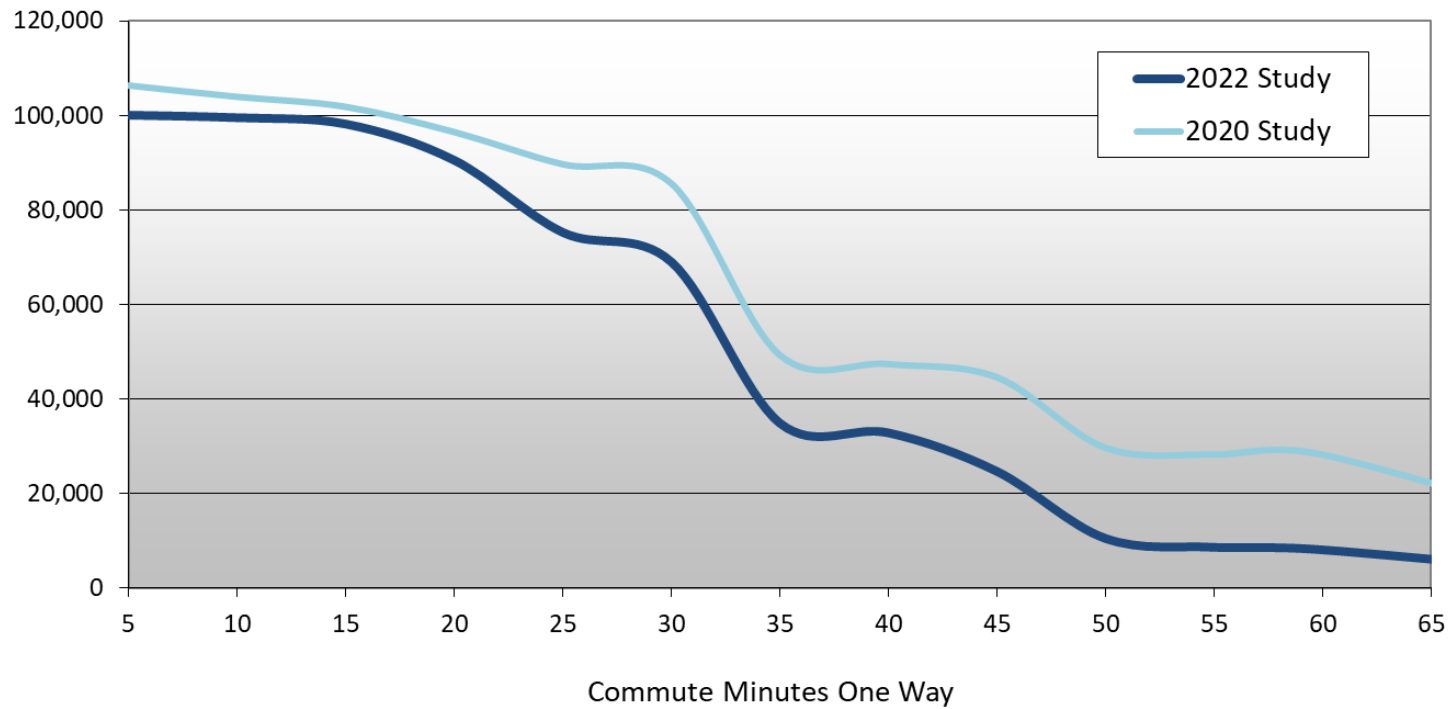
Table 14: Willing to Work Outside of Field and Work Shift Comparison

<i>(Ranked by 2022 Report)</i>	2020 Study		2022 Study	
	Number	Percent	Number	Percent
Willing to Take Job Outside of Primary Field	88,113	82.8	82,582	72.3
Will Work 2nd Shift*	39,039	36.7	39,762	34.8
Will Work Weekends	51,313	48.2	37,014	32.4
Will Work Night Shift*	n/a	n/a	22,703	19.9
Will Work Rotating Shifts	38,533	36.2	21,905	19.2

* In 2020, "2nd Shift" and "Night Shift" were presented as a single question.

Figure 29 compares “minutes willing to commute” for both studies. A notable decline in available labor occurs between 30 and 35 minutes. The largest decline occurred in 2022.⁵

Figure 29: Available Labor by Commute Minutes Comparison



⁵ Change is measured by the number of Pool members willing commute 30 minutes minus the number willing to commute at 35 divided by the number willing to commute 30 minutes. Results for 2020 and 2022 are 43% and 50%, respectively.

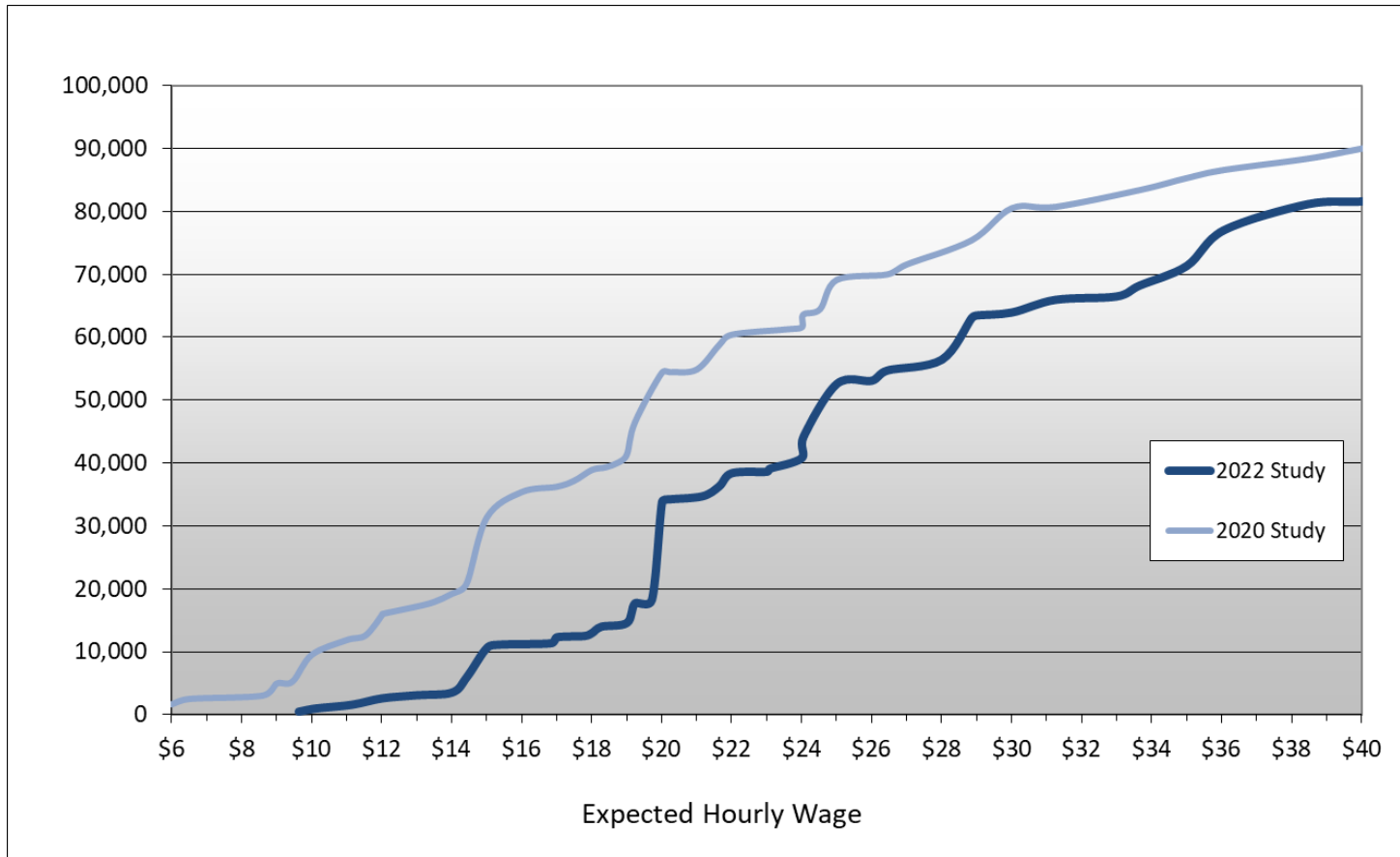
Table 15 shows the relative importance of various benefits, ranked in order of 2022 responses. The table shows that the percentages of Pool members considering “Good salary/hourly pay” and “flexible hours or remote work” as very important benefits/opportunities increased between 2020 and 2022 (90.2% and 96.7% for the former and 75.9% and 82.2% for the latter).

Table 15: Important Benefits to Change Employment Comparison

<i>(Ranked by 2022 Report)</i>	<i>Percent Responding "Yes" Shown</i>		<i>Change 2022-2020</i>
	<i>2020 Study</i>	<i>2022 Study</i>	
Good Salary or Hourly Wage	90.2	96.7	6.5
Good Retirement Benefits	85.4	82.9	-2.5
Flexible Hours or Remote Work	75.9	82.2	6.3
Good Vacation Benefits	82.5	80.9	-1.6
Good Health Benefits	83.5	80.7	-2.8

Figure 30 shows expected wages for both studies. Available labor increases notably between \$15 and \$20 an hour. Of the two time periods, 2022 shows a larger increase in available labor between \$15 and \$20 an hour.⁶

Figure 30: Available Labor Pool by Hourly Wage Comparison



⁶ Change is measured by the number of Pool members expecting \$20 an hour minus the number expecting \$15 an hour, divided by the number expecting \$15. Results for 2020 and 2022 are 74% and 168%, respectively.

Table 16 compares of the underemployed members of the Available Labor Pools for both studies. Almost 29% of the 2022 Pool is underemployed, while 21.8% of the 2020 Pool was underemployed.

The percentage of underemployed workers in general labor occupations was larger in 2020 (32.7%) than in 2022 (27.3%). The percentage of underemployed service sector workers was smaller in 2020 (39%) than in 2022 (43%).

The percentage of underemployed workers with some college experience is larger in 2022 (83.8%) than in 2020 (79.8%).

Table 16: Underemployed Workers Occupational Sectors and Education Levels Comparison

	2020 Study		2022 Study			
	Number	Percent	Number	Percent		
Employed of Pool	82,116	77.2	79,442	79.4		
Underemployed Wrkrs	17,882	21.8	22,792	28.7		
Willing to Change Jobs to Address Status	9,478	53.0	11,828	51.9		
Occupational Sector	Number	Percent	Number	Percent		
General Labor	5,847	32.7	6,229	27.3		
High Skill Labor	1,093	6.1	1,989	8.7		
Service Sector	6,970	39.0	9,810	43.0		
Professional	3,973	22.2	4,764	20.9		
<i>Total</i>	<i>17,882</i>	<i>100</i>	<i>22,792</i>	<i>100</i>		
Highest Education	Number	Percent	Cumulative Percent	Number	Percent	Cumulative Percent
Doctoral Degree	1,639	9.2	8.7	798	3.5	3.5
Masters Degree	2,314	12.9	24.2	5,246	23.0	26.5
Bachelors Degree	4,233	23.7	46.4	8,107	35.6	62.1
Associates Degree	3,840	21.5	67.2	2,186	9.6	71.7
Some College	1,848	10.3	79.8	2,752	12.1	83.8
High School Diploma	2,812	15.7	94.9	3,702	16.2	100
Less HS Diploma	1,196	6.7	100	0	0.0	
<i>Total</i>	<i>17,882</i>	<i>100</i>		<i>22,792</i>	<i>100</i>	

Methods

The Mexico/Audrain County Labor Basin includes Audrain, Boone, Callaway, Howard, Monroe, Montgomery, Pike, Ralls, and Randolph Counties in central Missouri. The basin has a total population of approximately 338,637 and a Civilian Labor Force of 168,256. The total number of employed is 162,748 and the average unemployment rate was about 3.27% during the time of this study. The Docking Institute estimates the basin's Available Labor Pool consists of 100,052 individuals.

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 soon 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.”⁷ The Available Labor Pool is composed of workers of working age (18-65) 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 Force⁸. Secondly, the number of potential workers is then *restricted* to those working-age 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 working-age workers and potential workers for employers to draw upon in the Mexico/Audrain County Labor Basin.

Description of Survey Research Methods

For the 2020 study, data were collected from a random digit telephone survey of area adults, using the Docking Institute’s Computer Assisted Telephone Interviewing (CATI) system. Data were collected in 2022 using address-based sampling (ABS) and paper booklet questionnaires. The Institute purchased an address-based sample of households from an expert sampling vendor. Questionnaire instructions asked that an adult (18 or older) in the household participate in the survey. The self-administered questionnaire booklet was designed to be taped shut and dropped in the mail upon completing the questions, as the back cover is printed with business-reply postage and pre-addressed for return to the Docking Institute.

⁷ 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 soon, and retired individuals who may be willing and able to be gainfully employed).

⁸ 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.

The initial booklet was sent to 3,644 area residents in April 2022. A second wave, for non-responding households, was sent to 2,454 households on May 9, 2022. The combined mailing yielded a response rate of 2.3%, and too few booklets to meet study objectives. A second booklet was produced, and additional ABS samples were purchased (totaling 19,084 households). On August 10, 2022, a post card announcing a forthcoming booklet was sent to half of the households (9,542). The second booklet was sent to 19,084 households by September 9, 2022. A second post card, asking households to complete/return the booklet questionnaire and providing instructions for an online survey option, was mailed to 18,705 households on September 23, 2022.

In total, 25,182 booklets were mailed to area households. By October 26, 2022, 1,577 booklets were returned to the Institute as completed (792), undeliverable (769), and unusable/refusals (16). Excluding the undeliverable booklets and including 25 surveys completed online (for 817 completions total), the response rate is 3.35%. The sample margin of error for 817 completions is +/- 3.43%, assuming no response bias. Thus, we estimate there is a 95% chance that results in the sample of 817 are within +/-3.43% of what we would find in the full population if we could survey everyone.

From Labor Basin to Available Labor Pool

A total of 556 residents of Audrain, Boone, Callaway, Howard, Monroe, Montgomery, Pike, Ralls, and Randolph counties are included in the Mexico/Audrain County Labor Basin. As the Available Labor Pool consists of working-age residents interested in a new or different job, survey respondents 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 411. Of these 411 respondents, 53% (or 220) indicated that they were looking for another job or interested in a new or different given the right opportunities. 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 +/- 6.61%.

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.⁹

⁹ 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 central 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.

Expected Wage – The hourly wage that a respondent would expect to earn at a new or different job given the right opportunities. If a respondent offers a yearly salary instead of an hourly wage, an hourly 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.

Within the Necessary Commute Time – “Necessary Commute Time” is the number of minutes that a respondent indicates he or she is willing to travel that is equal to or greater than the estimated time necessary for the respondent to commute from his or her Zip Code of residence to the Zip Code at the center of the labor basin. For example, a respondent who is willing to travel for 30 minutes, one-way, for a new or different job and that lives an estimated 15 minutes from the center of the labor basin is considered “within the necessary commute time” for a new job.

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.

Potential Entrepreneurs – Potential entrepreneurs are non-business owning members of the Available Labor Pool that have “seriously considered starting their own businesses in the past few years.”

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

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

High Skill Labor includes occupations such as police, firefighting, postal worker, welder, high-skilled mechanics, welder, computer technician and lab technician.

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

Professional Sector 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	Hourly Wage	Annual Salary
\$5.00	\$10,400	\$23.00	\$47,840	\$40.50	\$84,240
\$5.50	\$11,440	\$23.50	\$48,880	\$41.00	\$85,280
\$6.00	\$12,480	\$24.00	\$49,920	\$41.50	\$86,320
\$6.50	\$13,520	\$24.50	\$50,960	\$42.00	\$87,360
\$7.00	\$14,560	\$25.00	\$52,000	\$42.50	\$88,400
\$7.50	\$15,600	\$25.50	\$53,040	\$43.00	\$89,440
\$8.00	\$16,640	\$26.00	\$54,080	\$43.50	\$90,480
\$8.50	\$17,680	\$26.50	\$55,120	\$44.00	\$91,520
\$9.00	\$18,720	\$27.00	\$56,160	\$44.50	\$92,560
\$9.50	\$19,760	\$27.50	\$57,200	\$45.00	\$93,600
\$10.00	\$20,800	\$28.00	\$58,240	\$45.50	\$94,640
\$10.50	\$21,840	\$28.50	\$59,280	\$46.00	\$95,680
\$11.00	\$22,880	\$29.00	\$60,320	\$46.50	\$96,720
\$11.50	\$23,920	\$29.50	\$61,360	\$47.00	\$97,760
\$12.00	\$24,960	\$30.00	\$62,400	\$47.50	\$98,800
\$12.50	\$26,000	\$30.50	\$63,440	\$48.00	\$99,840
\$13.00	\$27,040	\$30.50	\$63,440	\$48.50	\$100,880
\$13.50	\$28,080	\$31.00	\$64,480	\$49.00	\$101,920
\$14.00	\$29,120	\$31.50	\$65,520	\$49.50	\$102,960
\$14.50	\$30,160	\$32.00	\$66,560	\$50.00	\$104,000
\$15.00	\$31,200	\$32.50	\$67,600	\$50.50	\$105,040
\$15.50	\$32,240	\$33.00	\$68,640	\$51.00	\$106,080
\$16.00	\$33,280	\$33.50	\$69,680	\$51.50	\$107,120
\$16.50	\$34,320	\$34.00	\$70,720	\$52.00	\$108,160
\$17.00	\$35,360	\$34.50	\$71,760	\$52.50	\$109,200
\$17.50	\$36,400	\$35.00	\$72,800	\$53.00	\$110,240
\$18.00	\$37,440	\$35.50	\$73,840	\$53.50	\$111,280
\$18.50	\$38,480	\$36.00	\$74,880	\$54.00	\$112,320
\$19.00	\$39,520	\$36.50	\$75,920	\$54.50	\$113,360
\$19.50	\$40,560	\$37.00	\$76,960	\$55.00	\$114,400
\$20.00	\$41,600	\$37.50	\$78,000	\$55.50	\$115,440
\$20.50	\$42,640	\$38.00	\$79,040	\$60.00	\$124,800
\$21.00	\$43,680	\$38.50	\$80,080		
\$21.50	\$44,720	\$39.00	\$81,120		
\$22.00	\$45,760	\$39.50	\$82,160		
\$22.50	\$46,800	\$40.00	\$83,200		