Pettis County Labor Basin

Labor Availability Analysis – 2018

Including a comparison to data from the
2005, 2009, 2012, and 2015 Labor Availability Analyses

Benton ● Cooper ● Henry ● Howard ● Johnson ●
Lafayette ● Moniteau ● Morgan ● Pettis ● Saline Counties

Prepared For

Central Missouri Economic Development Alliance

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To facilitate effective public policy decision-making.

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Pettis County Labor Basin
Labor Availability Analysis – 2018
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2005, 2009, 2012, and 2015 Labor Availability Analyses

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Table of Contents

List of Figures ii
List of Tables iii
List of Maps iii
Executive Summary 1
The Pettis County Labor Basin 2
The Pettis County Labor Basin's Available Labor Pool 4
Current Skills and Work Experience 8
Educational Experience and Job Satisfaction 13
Considerations for Employment 17
Desired Wages of Available Labor Pool 20
Subsets of the Available Labor Pool 21
Subset 1: Within Necessary Commute Time 22
Subset 2: Underemployed Available Labor Pool Workers 27
Subset 3: Those with Military Experience 32
Subset 4: Discouraged Available Labor Pool Members 37
Comparative Analysis (2005, 2009, 2012, 2015, and 2018 Reports) 40
Methods 46
Glossary of Terms 49
Appendix: Hourly Wage to Annual Salary Conversion Chart 50

List of Figures

Figure 1: The Available Labor Pool for the Pettis County Labor Basin 4
Figure 2: Occupational Sectors of Available Labor (Employed Only) 6
Figure 3: Current Work Experience and Previous Work or Training Experience 9
Figure 4: Work Experience / Willing to Work in Field 10
Figure 4a: Work Experience in Warehousing or Distribution 11
Figure 4b: Work Experience in Manufacturing or Processing 11
Figure 5: Undergraduate College Major 13
Figure 6: Community College or Technical College Experience 14
Figure 6a: Community or Technical College Study Area 14
Figure 7: Completed a Technical Certificate 15
Figure 8: Job Satisfaction among Available Labor Pool Workers 15
Figure 9: Considerations for Employment 17
Figure 10: Available Labor by Commute Minutes 18
Figure 10a: Being Closer to Work 18
Figure 11: Benefits Very Important to Change Employment 19
Figure 12: Available Labor by Desired Hourly Wage 20
Figure 13: Available Labor by Desired Hourly Wage (for those within Necessary Commute Time) 23
Figure 14: Employed and Non-Employed Members of the Available Labor Pool 27
Figure 15: Underemployed Workers 27
Figure 16: Reasons for Underemployment 29
Figure 17: Seeking to Employment to Address Underemployment 29
Figure 18: Occupational Sectors of Underemployed Workers 30
Figure 19: Underemployed Workers – Benefits Very Important to Change Jobs 31
Figure 20: Military Experience 32
Figure 21: Occupational Sectors of Individuals with Military Experience 33
Figure 22: Military Experience by Desired Hourly Wage 34
Figure 23: With Military Experience – Benefits Very Important to Change Jobs 34
Figure 24: Underemployment among Those with Military Experience 35
Figure 25: With Military Experience – Reasons for Underemployment 35
Figure 26: With Military Experience – New Employment to Address Underemployment 36
Figure 27: Discouraged Pool Members by Desired Hourly Wage 38
Figure 28: Discouraged Pool Members – Benefits Very Important for New Job 39
Figure 29: Available Labor Pool Comparison 41
Figure 30: Available Labor by Commute Minutes Comparison 43
Figure 31: Available Labor Pool by Hourly Wage Comparison 44

List of Tables

Table 1: Age, Gender, and Education Levels of Available Labor Pool 5
Table 2: Major Occupational Categories of Available Labor 6
Table 3: Current Work Experience and Previous Work or Training Experience 8
Table 4: Job Satisfaction Among Workers: Pool and Non-Pool Members 16
Table 5: Desired Benefits and Current Benefits Offered 19
Table 6: Age, Gender, and Education Levels of Those within Necessary Commute Time 22
Table 7: Cumulative Desired Wages by Occupational Sector 24
Table 8: Cumulative Desired Wages Allowing for Transfer between Sectors 25
Table 9: Age, Gender, and Education Levels of Underemployed Workers 28
Table 10: Occupational Categories of Underemployed Workers 30
Table 11: Age, Gender, and Education Levels of Individuals with Military Experience 32
Table 12: Occupational Categories of Those with Military Experience 33
Table 13: Age, Gender, and Education Levels of Discouraged Pool Members 37
Table 14: Previous Occupational Groups of Discouraged Pool Members 38
Table 15: Key Population and Employment Indicators 40
Table 16: Available Labor Pool Occupational Sectors and Education Levels Comparison 42
Table 17: Willing to Work Outside of Field and Work Shift Comparison 42
Table 18: Important Benefits to Change Employment Comparison 43
Table 19: Underemployed Workers Occupational Sectors and Education Levels Comparison 45

List of Maps

Map 1: Pettis County Labor Basin 2
Map 2: Percent of Total Available Labor in Basin by ZIP Code 7
Map 3: Percent of Pool Member Workplaces by ZIP Code 12
Map 4: Percent with Necessary Commute Time by ZIP Code 26

Executive Summary

The Pettis County Labor Basin in Missouri includes Benton, Cooper, Henry, Howard, Johnson, Lafayette, Moniteau, Morgan, Pettis, and Saline counties. The purpose of this report is to assess the "Available Labor Pool" in this labor basin. The Available Labor Pool represents those who are looking for employment or are interested in new jobs for the right employment opportunities.

The Docking Institute's independent analysis of the labor basin shows that:

- The population of the Pettis County Labor Basin is 256,187. The Civilian Labor Force is 118,568. The Available Labor Pool contains 73,616 individuals.

- Of the *non-working* members of the Available Labor Pool, an estimated 7,302 (9.9%) are currently looking for work and 15,179 (20.6%) are interested in working given the right opportunities. Of the *working* members of the Available Labor Pool, 8,646 (11.7%) are currently looking for work, while 42,489 (57.7%) are interested in different jobs given the right opportunities.

- More than two-thirds (70.7%) of the Available Labor Pool have at least some college experience and 95% have at least a high school diploma. The average age for members of the Pool is about 48 years old, and women make up almost half (47.1%) of the Pool.

- Almost 18% of the Available Labor Pool is currently employed as general laborers, while an additional 8.7% work in government services or technical/highly skilled blue-collar occupations. About 33% of the Pool work in service sector jobs, while 9.5% work in professional, white-collar jobs. More than a quarter (30.9%) are not currently working outside the home.

- A vast majority (84.9%) of the Available Labor Pool are "willing to work outside of their primary field of employment for a new or different employment opportunity."

- About two-fifths (43%) of the members of the Available Labor Pool will commute up to 45 minutes one-way for an employment opportunity, while 85% will commute up to 30 minutes for employment.

- The six most important desired benefits, in order, are good salary or hourly wage, on-the-job training (OJT) or paid training, good health benefits, good vacation benefits, good retirement benefits, and flexible hours or flex-time.

- An estimated 10,527 members (14%) of the Available Labor Pool are interested in a new job at $10 an hour; 33,937 (46%) are interested at $15 an hour; and 47,556 (65%) are interested at $20 an hour.

- Of the 50,855 members in the subset of *employed members* of the Available Labor Pool, 11,919 (23%) consider themselves underemployed.

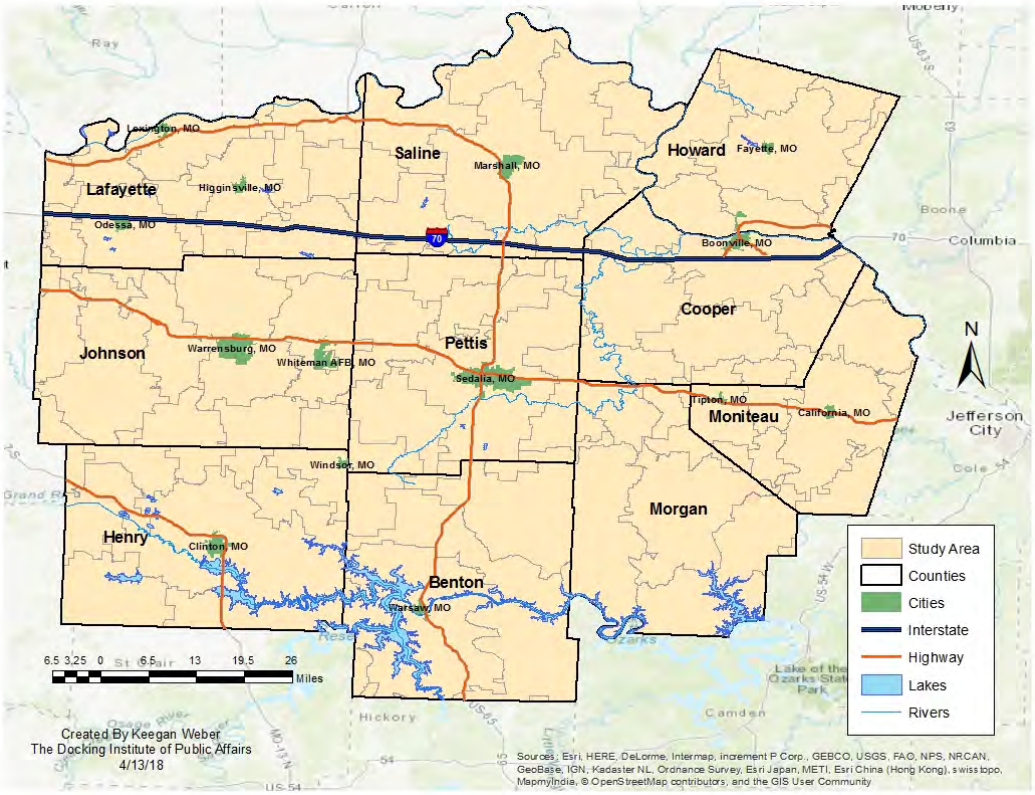
- About 19% (14,274) Available Labor Pool members report military experience, either serving currently or having served in the past. Of those with military experience, 8,144 (57%) are currently employed. Of the employed subset of those with military experience, 1,788 (22%) consider themselves underemployed.

- About 5.6% (4,166) Available Labor Pool members are considered "discouraged" Pool members. More than a quarter (28.6%) have previously worked in a customer service field.

The Pettis County Labor Basin

The Pettis County Labor Basin includes 10 counties in central Missouri (see Map 1 below). The criterion used to include a county in this labor basin is whether it contains communities from which, it can be reasonably assumed, individuals may commute to the center of the labor basin (Sedalia) for an employment opportunity. In the case of the Pettis County Labor Basin, it is reasonable that individuals may commute from (and within) the highlighted area because these counties contain 1) communities with adequate transportation to the Sedalia area and 2) communities that are within a 45-minute commute to the center of the labor basin.

Map 1: Pettis County Labor Basin



The Pettis County Labor Basin has a total population of approximately 256,187, and a Civilian Labor Force of 118,568. The total number of employed individuals is 112,807, and the average county unemployment rate was about 4.85% at the time of this study.

The Docking Institute's analysis suggests that the Pettis County Labor Basin contains an Available Labor Pool of 73,616 individuals.

This report describes characteristics of the Available Labor Pool for the Pettis County Labor Basin. This report also provides information on four subsets of the Available Labor Pool.

Please see the Methods section (page 46) for more information about the Institute's Available Labor Pool Analysis methodology and the survey research methods used for this study. The glossary (page 48) provides definitions of terms used in this report.

Components of the Report

The majority of this report assesses the characteristics of the Available Labor Pool in the Pettis County Labor Basin by answering the following types of questions:

- What portions of the labor force – employed, unemployed, homemakers, students, retired and disabled – are interested in a new employment opportunity?
- What types of jobs have workers and potential workers had in the past?
- What skills and education levels do those interested in new employment have?
- What certificates and technical school experiences do workers and potential workers have?
- What are the job satisfaction levels of those interested in new employment?
- What types of considerations (pay, benefits, and commute time) shape their decision-making?
- What percentage is willing to change fields of employment?
- What work shifts are they willing to work?

Four Subsets of the Available Labor Pool

This report also provides information on four subsets of the Available Labor Pool:

- Those living "within the necessary commute time." Information includes the following:
    - Age, gender, and education levels
    - Desired wages for a new job
    - Wages by employment sector
    - Location by ZIP code areas

- Those that consider themselves as underemployed. Information includes the following:
    - Age, gender, and education Levels
    - Reasons for underemployment
    - Current employment sectors and categories
    - Important benefits to change jobs

- Those with military experience, either currently serving or previous experience. Information includes the following:
    - Age, gender, and education levels
    - Current employment sectors and categories
    - Desired wages for a new job
    - Important benefits to change jobs
    - Underemployment

- Those considered "discouraged Pool members." Information includes the following:
    - Age, gender, and education levels
    - Previous employment
    - Desired wages for a new job
    - Important benefits for a new job

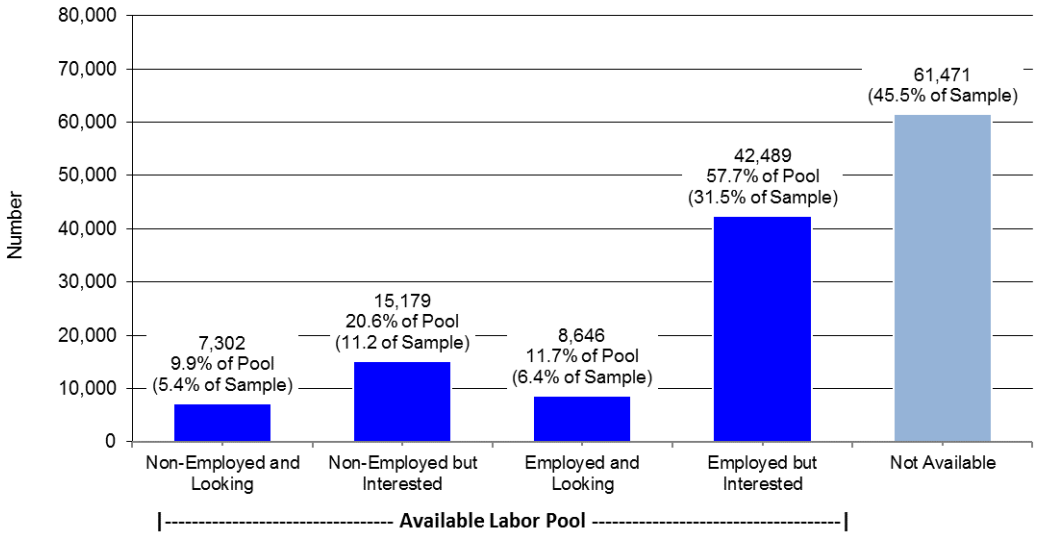
The Pettis County Labor Basin's Available Labor Pool

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

Figure 1 shows the extrapolated number of area adult residents that are members of the Available Labor Pool, as well as those that are not interested in a new or different job. The far right column shows that 45.5% of respondents are not available for a new or different job. The remaining 54.5% are members of the Available Labor Pool[1].

It is estimated that 7,302 (9.9%) members of the Available Labor Pool are non-employed[2] *and* looking for employment, while 15,179 (20.6%) are non-employed *but* interested in a job for the right opportunities. In addition, 8,646 (11.7%) members of the Pool are employed *and* currently looking for different employment, while 42,489 (57.7%) are employed *but* interested in new employment for the right opportunities.

Figure 1: The Available Labor Pool for the Pettis 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* interstested 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 figure shows percentages of the Available Labor Pool, as well as the entire sample (shown in parentheses). For example, 9.9% of the Pool is non-employed and looking for work, while this percentage is 5.4% for the entire sample.

[2] 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 but that might not be officially unemployed.

Table 1 shows the gender, age, and education levels of the 73,616-member Available Labor Pool. Almost half (47.1%) of the Pool are women, and the average age is about 48 years old. Almost all (95%) have *at least* a high school diploma, more than two-thirds (70.7%) have *at least* some college experience, and about two-fifths (41.5%) have *at least* a bachelor's degree. A quarter (25.8%) speak Spanish, but most (78.1%) speak "only a little."

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

Age Information	Age in 2017		
Range	18 to 69		
Mean Average	47		
Median Average	49		
Gender	Number	Percent	
Female	34,674	47.1	
Male	38,942	52.9	
Total	73,616	100	
			Cumulative
Highest Level of Education Achieved			Percent
Doctoral Degree	2,177	3.0	3.0
Masters Degree	9,542	13.0	15.9
Bachelors Degree	18,818	25.6	41.5
Associates Degree	8,588	11.7	53.1
Some College (including current students)	12,914	17.5	70.7
High School Diploma	17,932	24.4	95.0
Less than HS Diploma	3,645	5.0	100
Total	73,616	100	
"Do you speak Spanish?"	Number	Percent	
"Yes"	18,989	25.8	
Speak Very Well	*1,093*	*5.8*	*These percentages represent portions of 25.8%*
Speak Fairly Well	*3,072*	*16.2*	
Speak Only a Little	*14,824*	*78.1*	
		100	

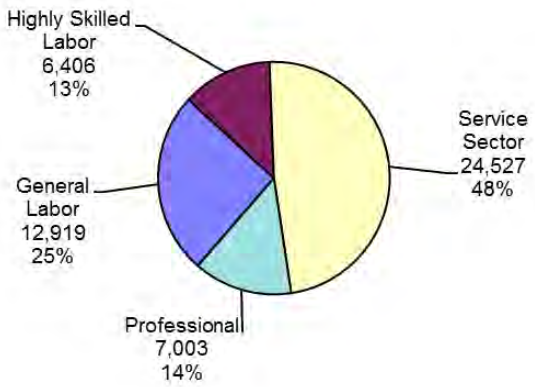
Table 2 shows the various occupational categories of the 73,616-member Available Labor Pool. General labor occupations represent 17.5% of the entire Available Labor Pool, while highly skilled, blue-collar jobs make up 8.7%. Traditional service-related occupations represent 33.3% of the Available Labor Pool, while professional occupations represent 9.5%. Non-employed members of the Pool make up 30.9% of the total.

Table 2: Major Occupational Categories of Available Labor

			Years at Job	
	Number	Percent	Mean	Median
General Labor/Delivery	6,515	8.8	9.4	3.1
Manufacturing/Maintenance/Trucking	6,404	8.7	15.6	15.9
Total General Labor	*12,919*	*17.5*	*12.5*	*9.5*
Mechanic/Welder/Comp Tech	4,352	5.9	15.8	17.0
Crew Management/Protection Services	2,054	2.8	11.5	10.0
Total Highly Skilled Labor	*6,406*	*8.7*	*13.7*	*13.5*
Customer Service	7,323	9.9	6.3	3.0
Clerical	3,218	4.4	10.0	7.8
Office or Dept Manager	3,275	4.4	15.7	12.9
Health Aid/Nurse	5,375	7.3	11.7	9.0
Education Aid/Teacher	5,337	7.2	11.1	8.6
Total Service Sector	*24,527*	*33.3*	*11.0*	*8.3*
Exec Management	1,705	2.3	6.1	7.0
Accounting/Engineering	3,027	4.1	10.1	6.4
Doctor/Professor/Attorney	1,893	2.6	9.7	7.2
Writer/Artist/Musician	378	0.5	15.7	17.4
Total Professional Sector	*7,003*	*9.5*	*10.4*	*9.5*
Homemaker/Student/Unemployed	10,725	14.6	n/a	n/a
Retired/Disabled	12,036	16.4	n/a	n/a
Total Non-Employed	*22,761*	*30.9*		
Total	73,616	100		

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.

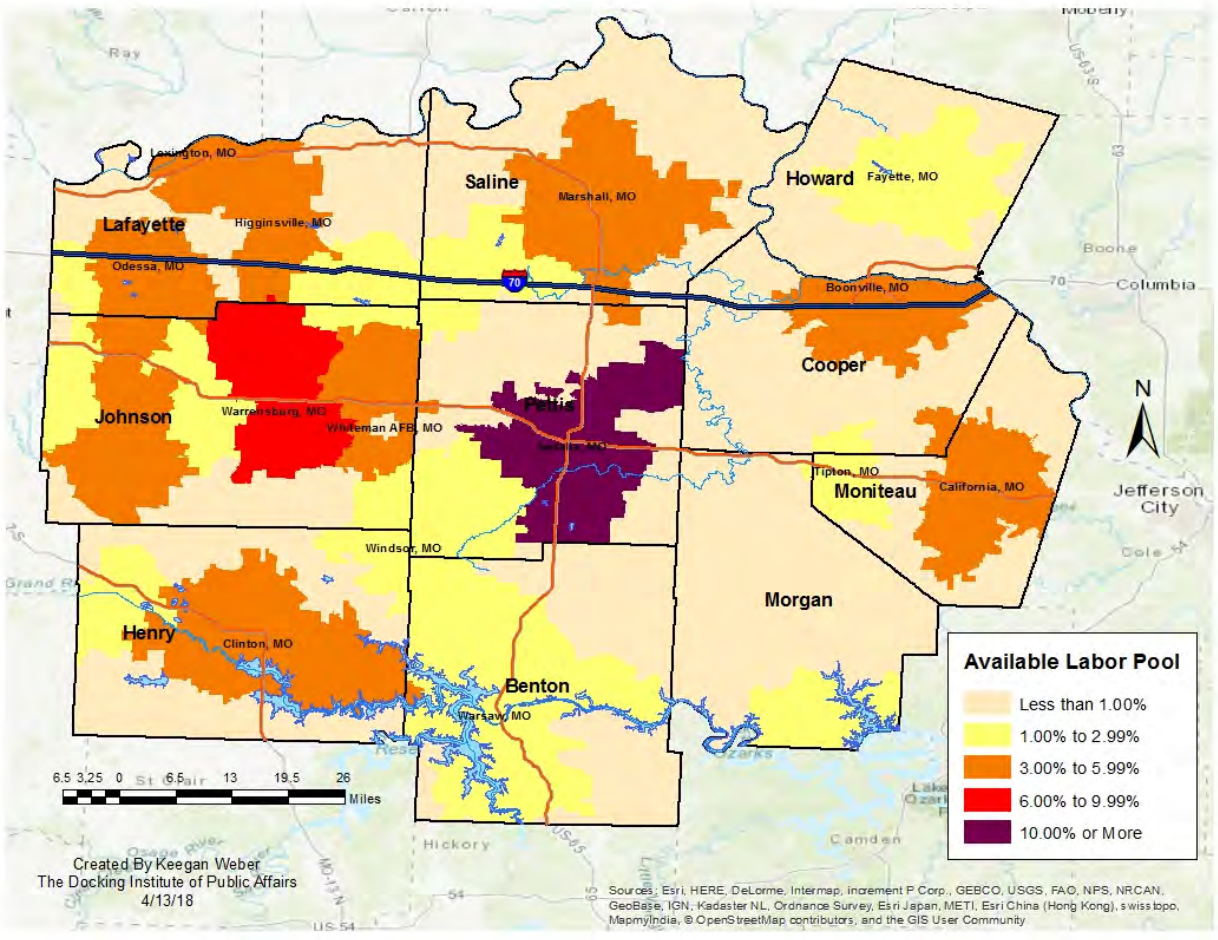
Figure 2: Occupational Sectors of Available Labor (Employed Only)



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 Pettis County Labor Basin. The map shows:

- Ten percent or more of the entire labor basin's Available Labor Pool is located in ZIP code areas within Pettis County. (See purple area in the map.)
- Between 6% and 9.99% of the entire labor basin's Available Labor Pool is located in ZIP code areas within Johnson County. (See red area in the map.)
- ZIP code areas in Cooper, Henry, Lafayette, Johnson, Moniteau, and Saline counties contain 3% to 5.99% of the basin's Available Labor Pool. (See orange areas in the map.)
- ZIP code areas in all counties contain 1% to 2.99% of the basin's Available Labor Pool. (See yellow areas in the map.)
- ZIP codes areas across the basin contain less than 1% of the Available Labor Pool.

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



Current Skills and Work Experience

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

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 who indicated previous training or experience in that particular field.

For example, 5,211 members of the Pool are currently employed in such fields as general laborers, construction workers, cleaners, and similar positions. An additional 3,920 Pool members (employed and currently non-employed) had previous employment experience or training in one of those jobs for a total of 9,131 individuals.

Table 3: Current Work Experience and Previous Work or Training Experience

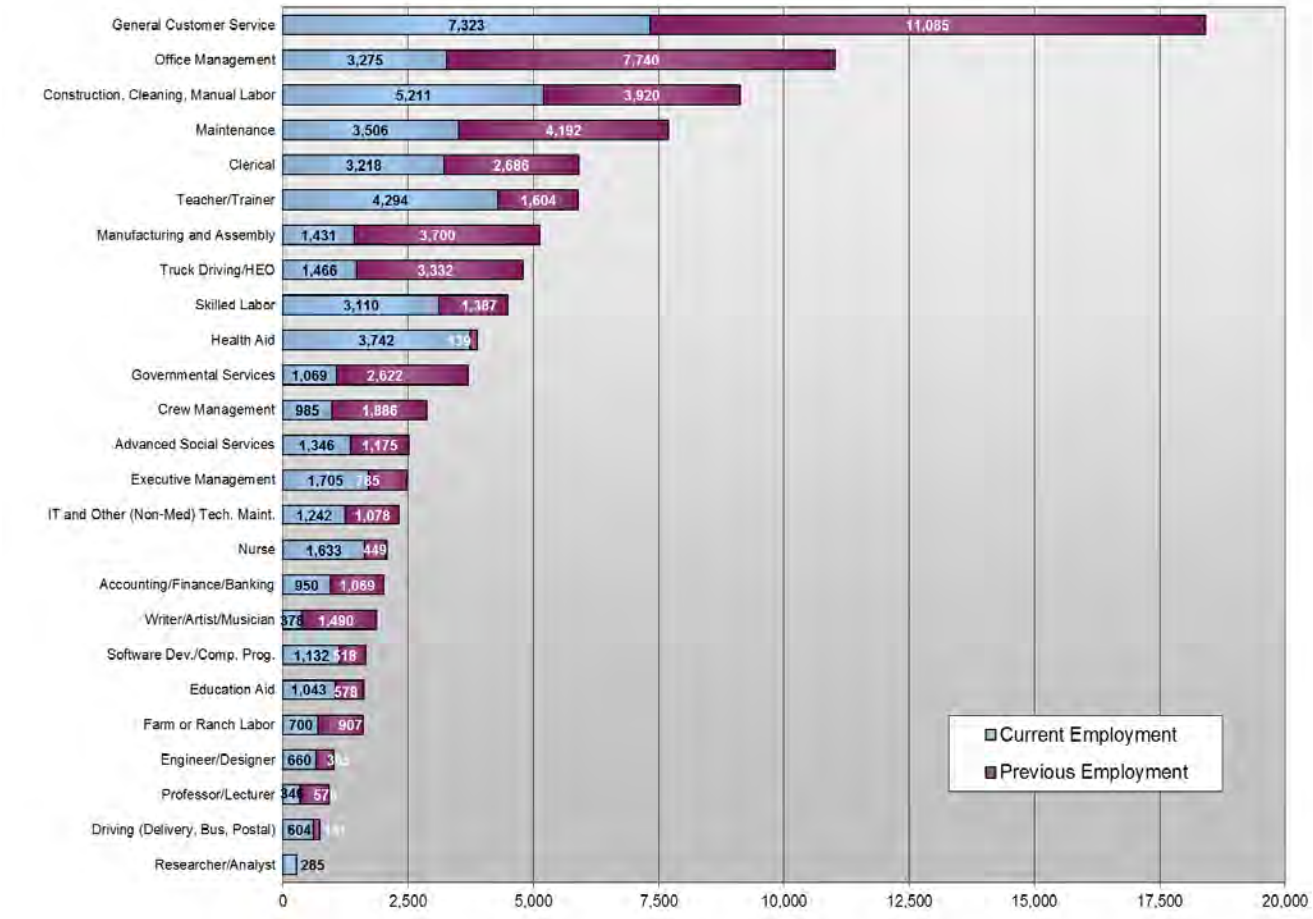
	Current Employment* Number	+	Previous Work/Training Number	=	Current plus Previous Work or Training** Number
Working with Hands					
Construction, Cleaning, Manual Labor	5,211		3,920		9,131
Farm or Ranch Labor	700		907		1,607
Manufacturing and Assembly	1,431		3,700		5,131
Maintenance	3,506		4,192		7,698
Driving (Delivery, Bus, Postal)	604		141		746
Truck Driving/HEO	1,466		3,332		4,798
Skilled Labor	3,110		1,387		4,497
Crew Management	985		1,886		2,871
Working with People					
General Customer Service	7,323		11,085		18,408
Office Management	3,275		7,740		11,015
Governmental Services	1,069		2,622		3,690
Executive Management	1,705		785		2,490
Advanced Social Services	1,346		1,175		2,521
Working with Numbers					
Clerical	3,218		2,686		5,904
Accounting/Finance/Banking	950		1,069		2,020
Researcher/Analyst	285		0		285
Working with Technology					
IT and Other (Non-Med) Tech. Maint.	1,242		1,078		2,320
Software Dev./Comp. Prog.	1,132		518		1,650
Engineer/Designer	660		365		1,025
Providing Health Services					
Health Aid	3,742		139		3,881
Nurse	1,633		449		2,082
Advanced Medical Practitioner	200		0		200
Providing Educational Services					
Education Aid	1,043		578		1,622
Teacher/Trainer	4,294		1,604		5,897
Professor/Lecturer	346		576		922
Creative Arts					
Writer/Artist/Musician	378		1,490		1,868
Total	50,855		53,423		104,278

* 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. 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 7,323 working Pool members currently employed in this category and 11,085 previously employed/trained in this category for a total of 18,408 individuals (total number not shown in figure).

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



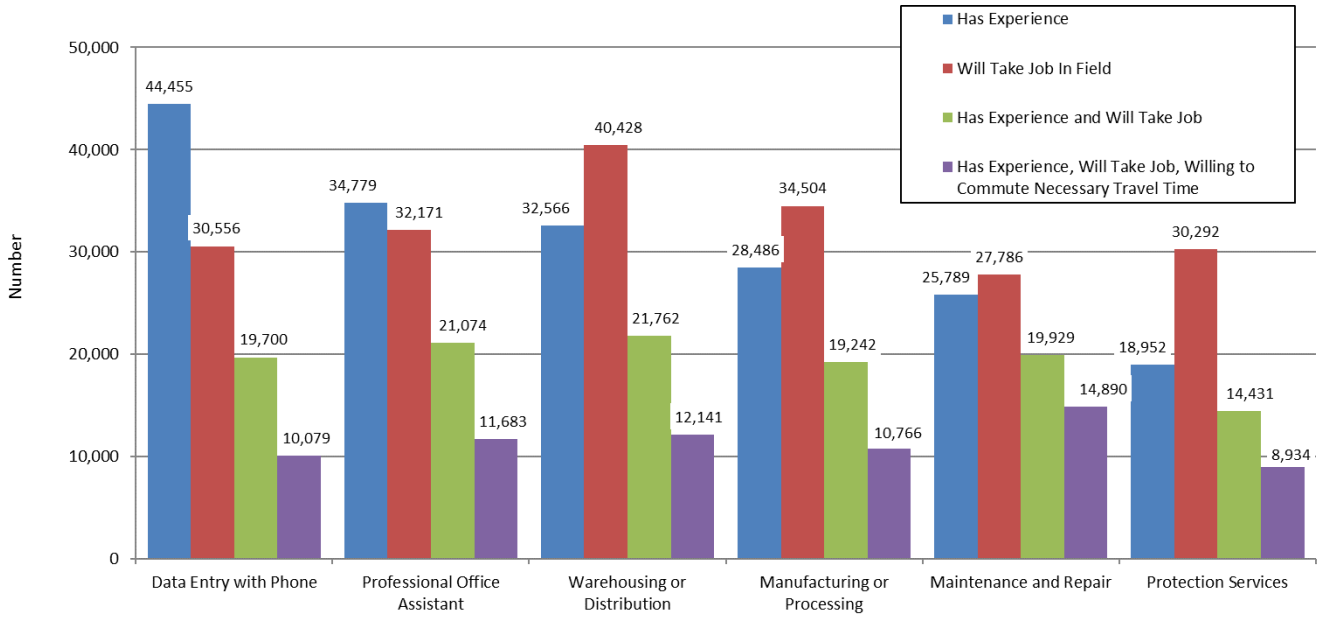
In addition to collecting data regarding the current employment status and previous work or training experience through a series of "open-ended" survey questions (the results of which are shown previously), respondents were asked about the six specific employment areas listed in Figure 4. Respondents were first asked if they had any 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).[3]

The figure shows that an estimated 44,455 Pool members reported experience or training in data entry with telephone operation (blue column), while fewer (30,556 individuals) would consider employment in that field (red column). An estimated 34,779 members of the Pool have at least some experience or training as a professional office assistant (blue column), while slightly fewer members of the Pool (32,171 individuals) would take a job in that field (red column).

The figure also shows responses for training or experience working in warehousing or distribution, manufacturing or processing, maintenance and repair, and in protection services.

The third column shows the estimated number that have at least some experience/training in a field ***and*** are willing to work in that field again (green column). The fourth column shows the estimated numbers that have any experience/training ***and*** are willing to take a job in that field ***and*** are within the necessary commute time (purple column). See page 22 for a definition of necessary commute time.

Figure 4: Work Experience / Willing to Work in Field



[3] Figure 4 differs substantially from Table 3 and Figure 3 (previous pages). For example, the "has experience" column above represents an extrapolated total of ***all*** Pool members answering "yes" to the question "do you have any experience or training in…" As such, Figure 4 provides a "50,000-foot view" of the skill sets of Pool members. Table 3 and Figure 3, on the other hand, provide extrapolated responses from Pool members (working in the first column, working and non-working in the second) about specific jobs – one current job and/or one previous job.

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

Figures 4a and 4b show the responses to those questions. The figures show that more than two-fifths (46%) of those with warehousing experience worked in jobs involving moving materials or loading trucks (see figure 4a).

Almost three-fifths (59%) of those with manufacturing or processing experience worked in jobs involving production, fabrication, or assembly (see figure 4b).

Figure 4a: Work Experience in Warehousing or Distribution

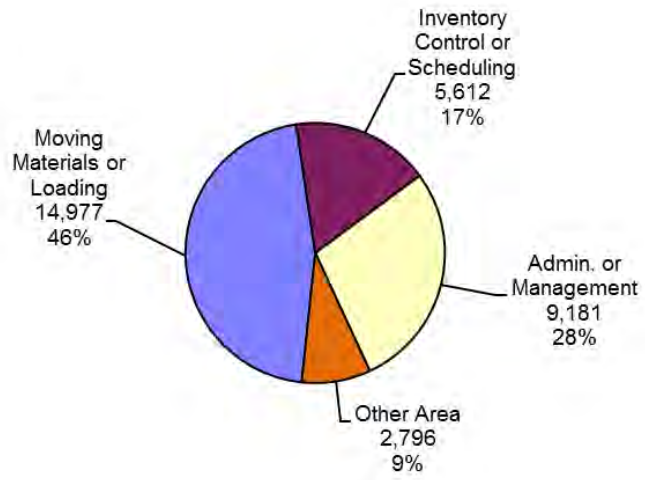
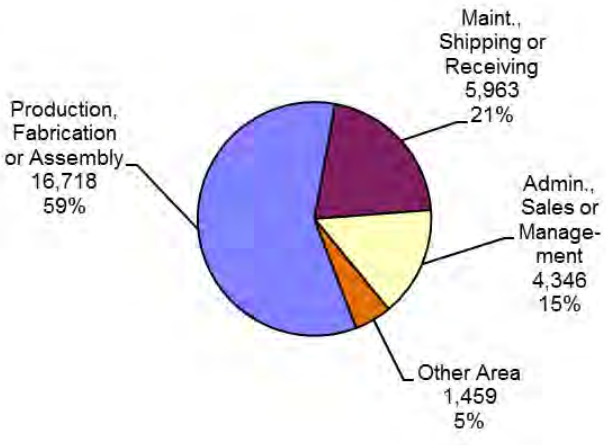


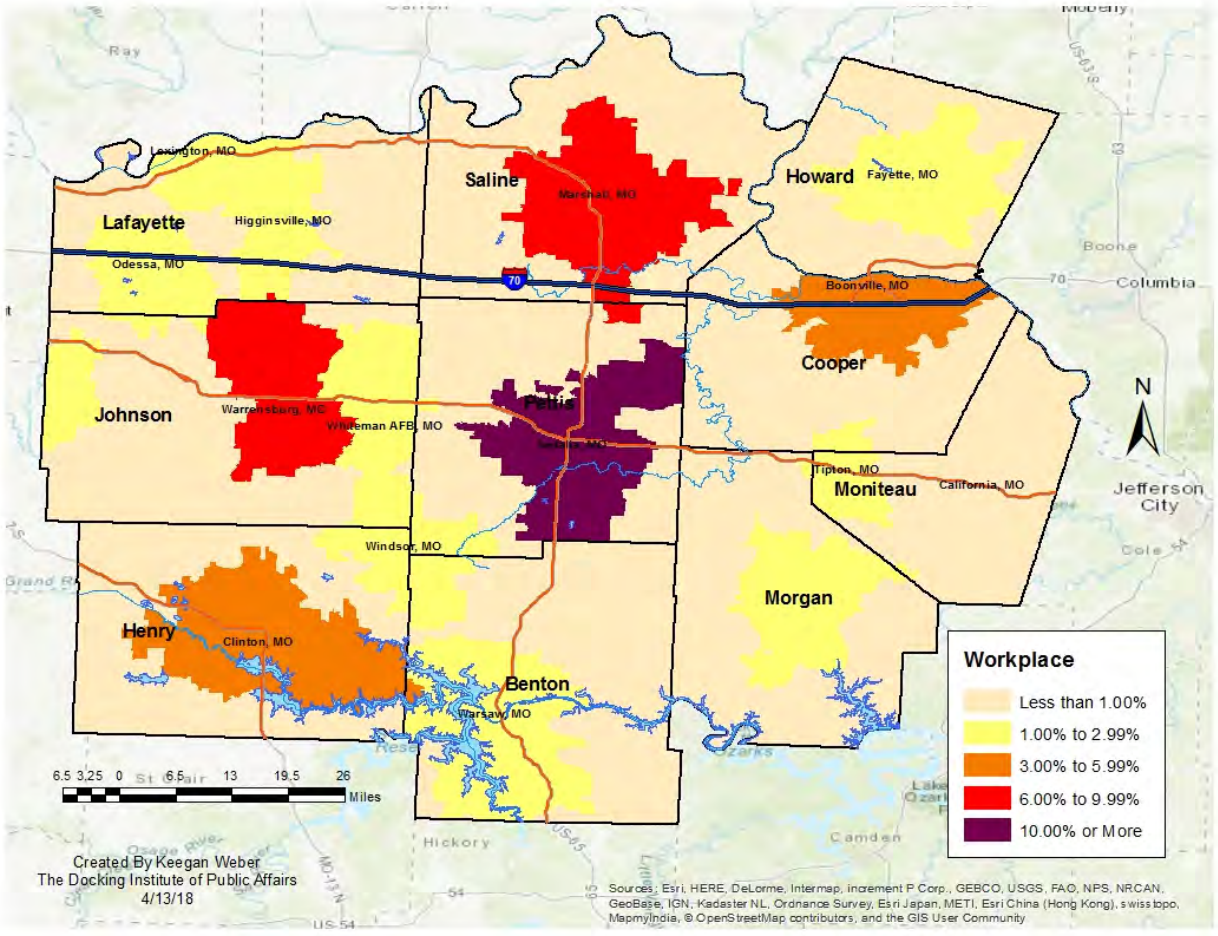
Figure 4b: Work Experience in Manufacturing or Processing



Working Available Labor Pool members were asked for the ZIP code of their workplaces. Map 3 shows the locations of workplaces employing Available Labor Pool members by ZIP code area. The map shows the following:

- Ten percent or more of the working members of the Available Labor Pool work in ZIP code areas in Pettis County. (See purple area on the map.)
- Between 6% and 9.99% of the working members of the Pool work in ZIP codes areas in Johnson and Saline counties. (See red areas on the map.)
- Workplaces located in ZIP code areas in Cooper and Henry counties employ 3% to 5.99% of the basin's working Pool members, respectively. (See orange areas on the map.)
- Workplaces located in ZIP code areas in all counties employ 1% to 2.99% of the basin's working Pool members. (See yellow areas on the map.)
- Finally, up to 1% of the Pool work for employers located in ZIP code areas in the rest of the labor basin.

Map 3: Percent of Pool Member Workplaces by ZIP Code



Educational Experience and Job Satisfaction

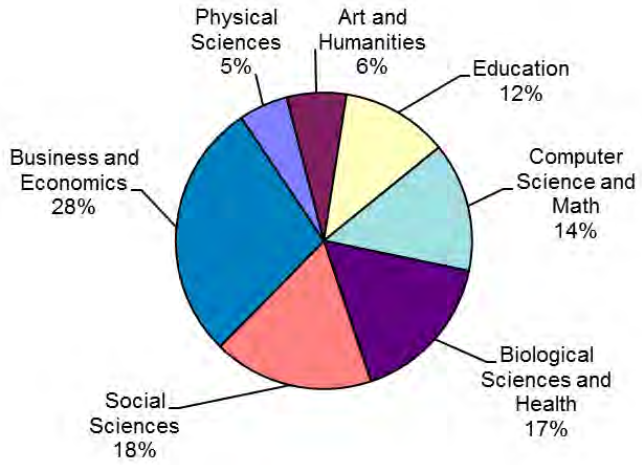
Table 1 (see page 5) shows that 70.7% of the Available Labor Pool reported at least some college experience (with 53.1% holding at least associate's degrees and 41.5% having completed at least a bachelor's degree).

Respondents that have at least some college experience or are currently enrolled in a community college, college, or university were asked to provide their major area of study. Answers are grouped into the following categories:

Social Sciences: Sociology, Psychology, Anthropology, Politics, and Social Work.
Biological Sciences and Health: Biology, Agriculture, Nursing, Pre-Med, and Pre-Vet.
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: Programming or Technology, Networking, Web Design, and Math.
Arts and Humanities: Art, Music, History, Philosophy, and Languages.

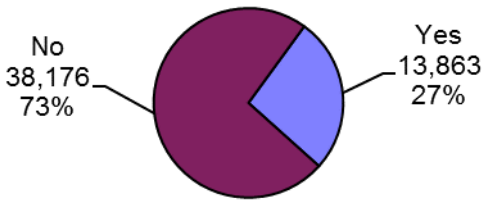
Figure 5 shows that Available Labor Pool members with at least some college experience indicate majors in business and economics (28%), social sciences (18%), biological sciences and health (17%), computer science and math (14%), education (12%), arts and humanities (6%), and physical sciences (5%).

Figure 5: Undergraduate College Major



All respondents that have completed at least some college were also asked: “Are you attending a community college or technical school now, or have you received a community college or technical degree?” Figure 6 shows that 27% of the respondents hold a community college or technical degree or were working on one at the time of the research.

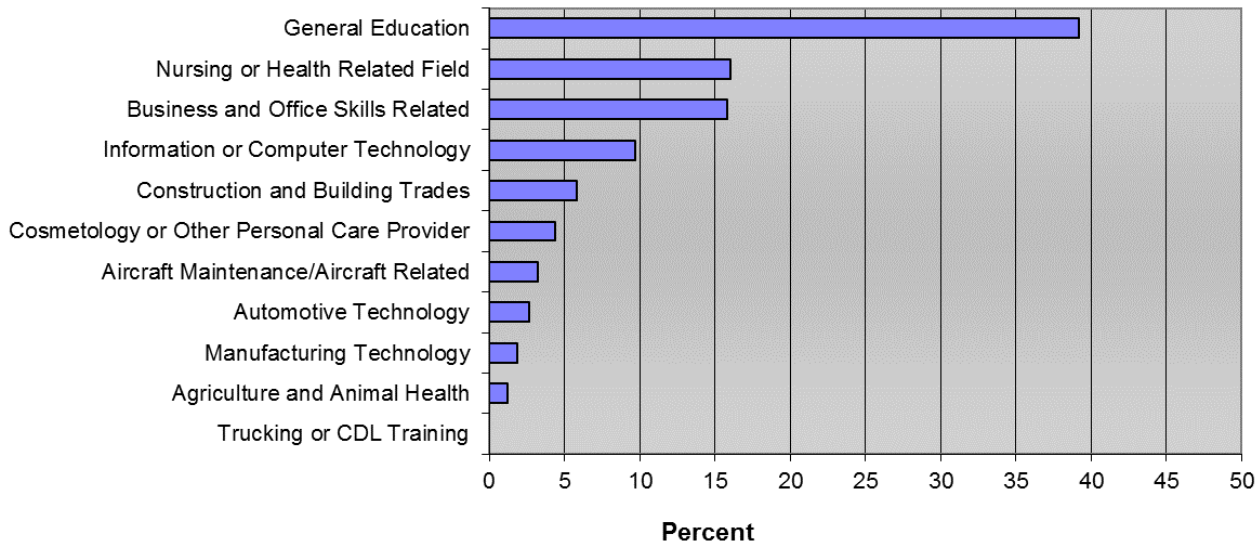
Figure 6: Community College or Technical College Experience



Respondents answering “yes” to the above question were asked for their area of study. Answer options are grouped into one of the options shown in Figure 6a. The figure shows that about 39% reported studying general education courses, and about 16% reported studying nursing or a health related field and reported studying a business-related field, each. Almost 10% reported studying information technology or computer technology.

Other areas of study mentioned were construction or other building trades, cosmetology or other personal care, aircraft maintenance or other aircraft related field, automotive technology, manufacturing technology, agriculture or animal health, and trucking or commercial driver’s license (CDL) training.

Figure 6a: Community or Technical College Study Area



All members of the Available Labor Pool were asked if they had completed a certificate in a technical field. Figure 7 shows that 34% of the Pool members reported completing a technical certificate of some kind.

Figure 7: Completed a Technical Certificate

Figure 8 and Table 4 show responses to questions regarding *job satisfaction*. The figure and table report responses from *working survey respondents* only. The figure shows that about 36% of the working Pool respondents "strongly agree" with a statement suggesting that they "enjoy the things I do," while 57% "agree" with that statement. In all, about 93% at least "agree" that they enjoy their work.

In general, Pool members are generally satisfied with their work and their work environments but are looking for and/or are available for new employment. About 55%, however, at least disagree that they have a "fair chance at promotion" to another position.

Figure 8: Job Satisfaction among Available Labor Pool Workers

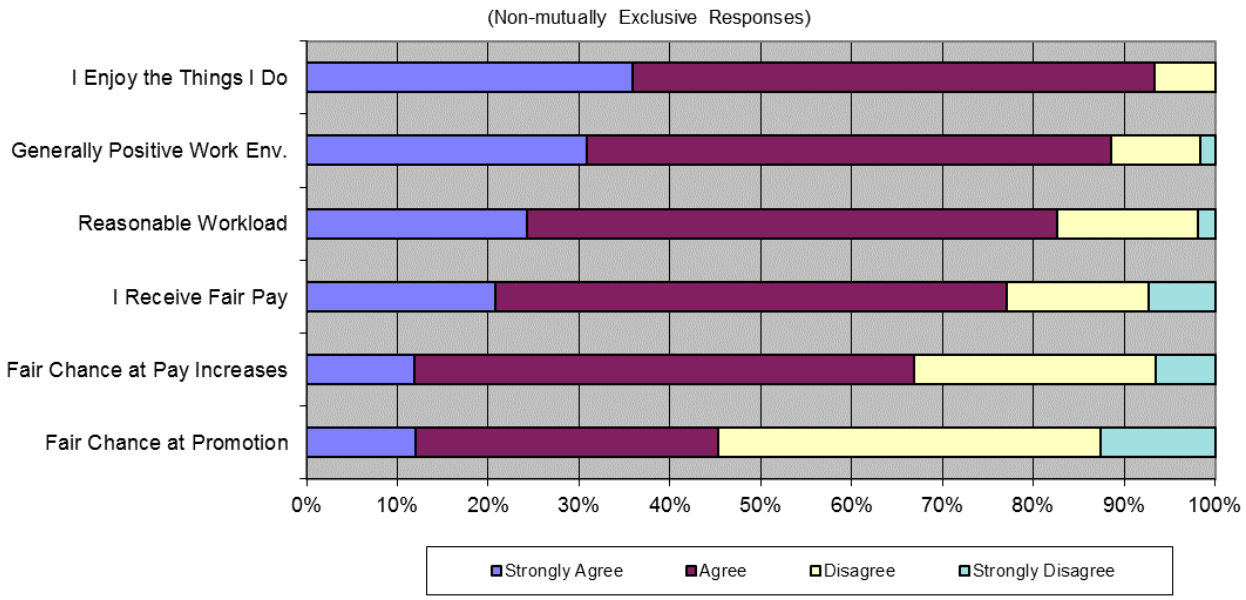


Table 4 shows combined “strongly agree” and “agree” responses of working Pool members and working non-Pool respondents. The table shows that 93.3% of the working Pool members at least agree with the statement regarding “enjoying the things I do”; a higher percentage (97.1%) of the working non-Pool respondents suggest the same.

The statement with the largest percentages of disparity between working Pool members and working non-Pool respondents is with regard to “receiving fair pay.” About 92% of the working non-Pool respondents at least agree with this statement, whereas about 15% fewer (77%) of the working Pool members feel the same way.

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

	Strongly and Agree		
	Pool Only	Non-Pool Only*	
	Percent	Percent	*Difference*
I Enjoy the Things I Do	93.3	97.1	-3.8
Generally Positive Work Env.	88.6	97.9	-9.3
Reasonable Workload	82.6	90.4	-7.8
I Receive Fair Pay	77.1	92.2	-15.1
Fair Chance at Pay Increases	66.8	73.3	-6.5
Fair Chance at Promotion	45.3	55.6	-10.4

*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. For example, 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 Pettis County Labor Basin. Figure 9 shows that a clear majority of the Available Labor Pool (62,487 members or 85%) are willing to accept positions outside of their primary fields of employment.

Figure 9: Considerations for Employment

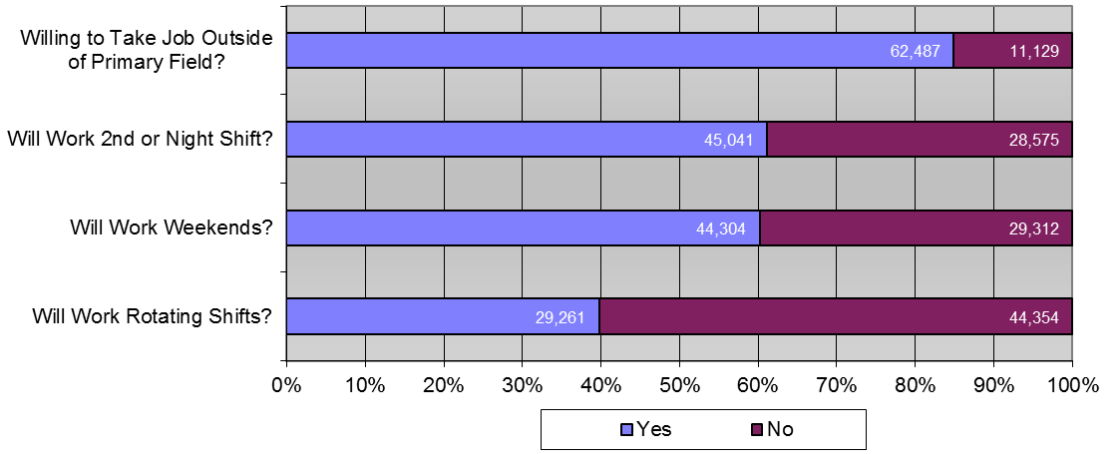
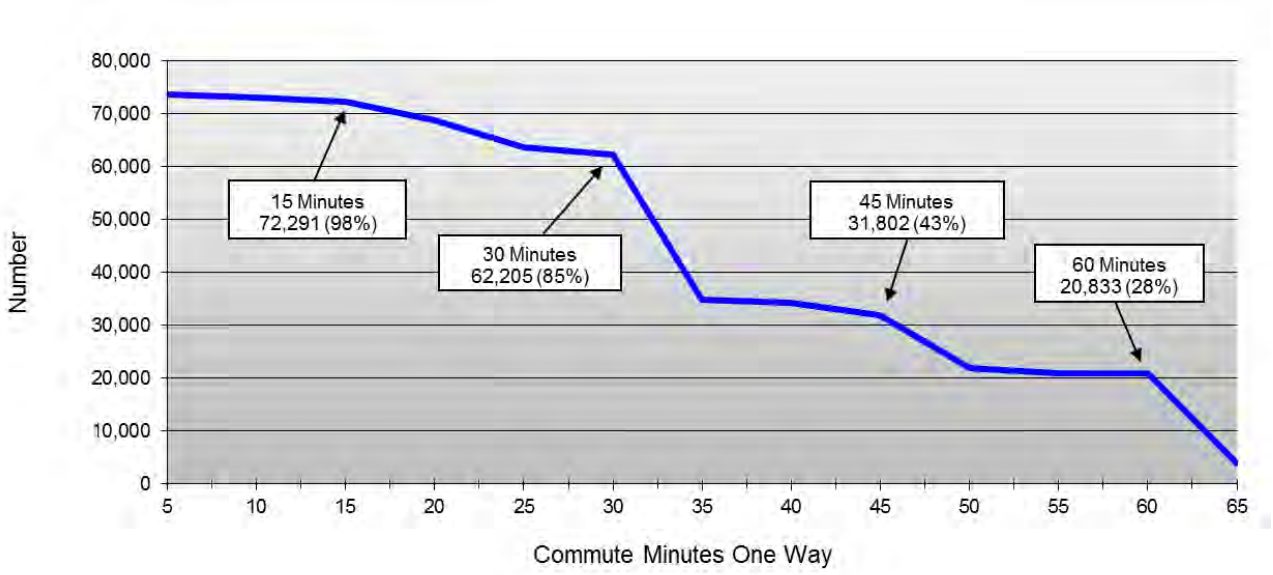


Figure 9 also shows responses to three questions regarding work shifts. Respondents were asked if they would be willing to work weekends, rotating shifts, or a second or night shift for a new job.

The figure shows that about 61% of the Available Labor Pool are willing to work second shift or night shift and about 60% are willing to work weekends. Two-fifths (40%) are willing to work rotating shifts for a new or different job.

Another important consideration for many employers is whether workers are willing to commute for a new or different employment opportunity. Figure 10 shows to what degree the Available Labor Pool members in the Pettis County Labor Basin are open to commuting. More than two-fifths (43%) of the members of the Available Labor Pool will commute up to 45 minutes, one-way, for an employment opportunity, while 85% will commute up to 30 minutes, one-way, for employment. Nearly all (98%) will travel up to 15 minutes, one-way, for employment.

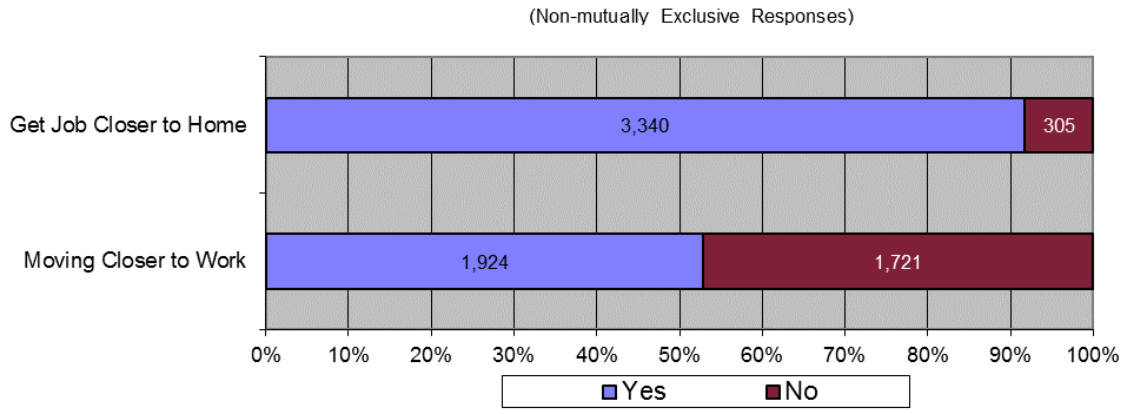
Figure 10: Available Labor by Commute Minutes



Working members of the Pool indicating a *willingness to commute farther than 60 minutes*, one-way, for a job, were asked two questions: "Have you considered moving to be closer to your job?" and "Have you considered getting a job closer to your home?"

Figure 10a shows that a vast majority (92%) of this subset of the Pool would consider getting a new job closer to their place of residence, while about 53% would consider moving closer to their place of work.

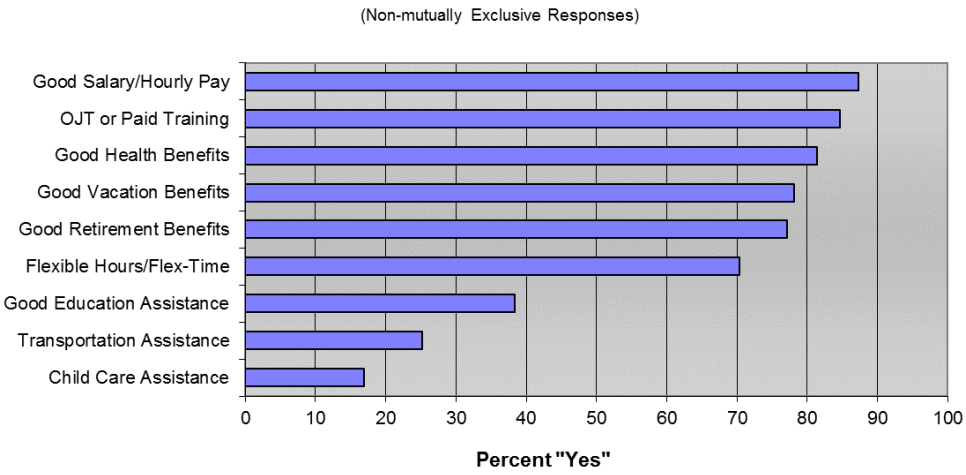
Figure 10a: Being Closer to Work



Available Labor Pool members were asked about various benefits that might be important when 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, with answer options including "yes" and "no." (Responses are non-mutually exclusive.)

Figure 11 shows that the six most important benefits are, in order: good salary or hourly pay, on-the-job training (OJT) or paid training, good health benefits, good vacation benefits, good retirement benefits, and flexible hours or flex-time. All of these benefits are considered "very important" by 70% or more of the Available Labor Pool. Good educational assistance, transportation assistance, and child care assistance are considered "very important" by 38%, 25%, and 17% of Pool members, respectively.

Figure 11: Benefits Very Important to Change Employment



The left column in Table 5 shows the percentages of all Pool members, while the right column shows the percentages of *working members* of the Available Labor Pool that are offered the benefit from their current employers. Flexible hours/flex-time stands out with a 14.5% difference between those Pool members considering this benefits very important (70.4%) and those working Pool members receiving this benefit (55.9%), while transportation assistance and child care assistance follow similar patterns (with about 10% differences).

Table 5: Desired Benefits and Current Benefits Offered

	Benefit Important to Change Jobs Percent	Benefit Currently Offered* Percent	*Difference*
Good Salary/Hourly Pay	87.3	83.8	*3.5*
OJT or Paid Training	84.7	84.1	*0.6*
Good Health Benefits	81.4	83.4	*-2.0*
Good Vacation Benefits	78.2	77.3	*0.9*
Good Retirement Benefits	77.2	74.2	*3.0*
Flexible Hours/Flex-Time	70.4	55.9	*14.5*
Good Education Assistance	38.4	47.7	*-9.3*
Transportation Assistance	25.2	14.6	*10.6*
Child Care Assistance	16.9	6.5	*10.4*

*This column represent working Pool members that receive the benefit.

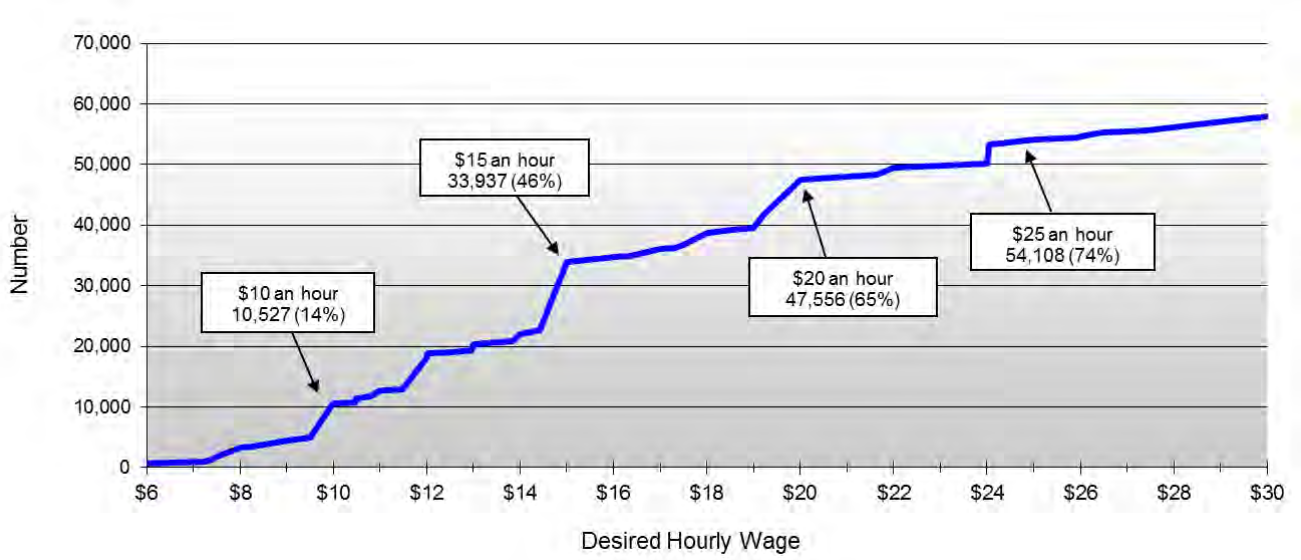
Desired Wages of Available Labor Pool

Desired wage is another important consideration for employers and economic developers. Figure 13 shows desired wages of members of the Available Labor Pool. It is estimated that 54,108 people (or 74% of the available labor) are interested in a new job at $25 an hour[4].

An estimated 47,556 (65%) members of the Pool are interested in new employment opportunities at $20 an hour, while 33,937 (46%) are interested at $15 an hour.

Finally, an estimated 10,527 people (14%) are interested in a new job at $10 an hour. This percentage is larger than many comparable labor basins.

Figure 12: Available Labor by Desired Hourly Wage



[4] See the Appendix for an hourly wage/annual salary conversion chart.

Subsets of the Available Labor Pool

The previous portion of the report addressed the entire Available Labor Pool. The remainder of the report addresses four subsets of the Available Labor Pool. Each provides a different look at the Available Labor Pool, and they are not mutually exclusive.

The four subsets are the following:

1. Those Residing within the Necessary Commute Time
2. Underemployed Available Labor Pool Workers
3. Those with Military Experience
4. Discouraged Available Labor Pool Members

Subset 1: Within Necessary Commute Time

To present an even more refined picture regarding the number of workers who would seriously consider a new employment opportunity, the data in this section includes *only those respondents* that are determined to reside "within the necessary commute time."

Necessary Commute Time is defined as a commute time stated by a respondent that is equal to or greater than the commute time necessary for that respondent to travel 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 opportunity and who lives an estimated 15 minutes from the center of the labor basin is considered to be "willing to travel the necessary commute time" for a new job.

Those within the necessary commute time number 41,691 individuals.

Table 6 shows that the average age of this subset of the Available Labor Pool is between 47 and 50 years old. Almost three-fifths (58.8%) are male. Almost two-fifths (38.4%) hold at least a bachelor's degree and a vast majority (94.3%) have earned at least a high school diploma.

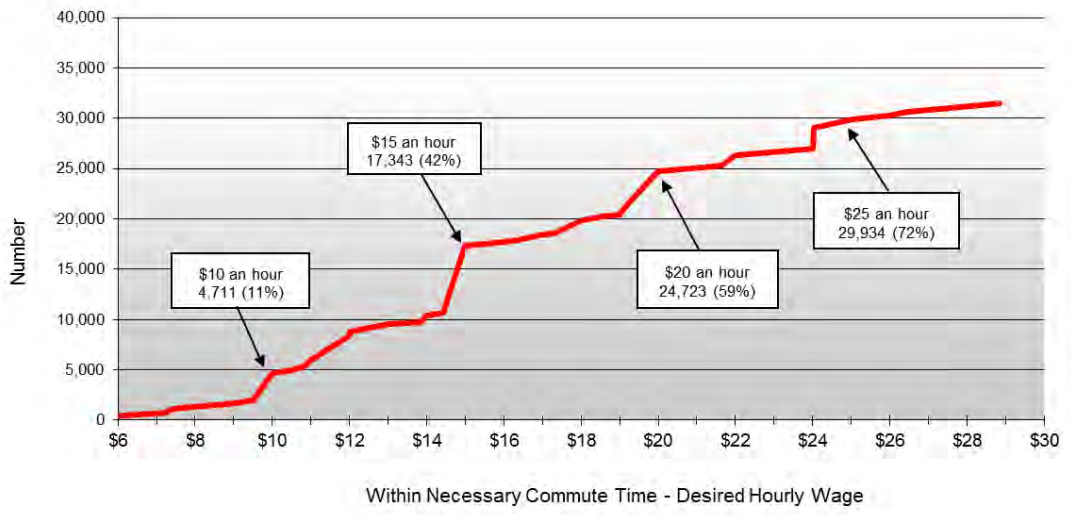
Table 6: Age, Gender, and Education Levels of Those within Necessary Commute Time

Age Information	Age in 2017		
Range	19 to 69		
Mean Average	47		
Median Average	50		
Gender	Number	Percent	
Female	17,168	41.2	
Male	24,522	58.8	
Total	41,691	100	
			Cumulative
Highest Level of Education Achieved			*Percent*
Doctoral Degree	1,046	2.5	2.5
Masters Degree	5,243	12.6	15.1
Bachelors Degree	9,725	23.3	38.4
Associates Degree	5,052	12.1	50.5
Some College (including current studer	7,472	17.9	68.5
High School Diploma	10,757	25.8	94.3
Less than HS Diploma	2,396	5.7	100
Total	41,691	100	

Desired Wages of those within Necessary Commute Time

Figure 13 shows the wage demands for the Available Labor Pool members that are "within the necessary commute time." An estimated 29,934 people (or 72% of this subset) are interested in a new job at $25 an hour. An estimated 24,723 (59%) are interested in a new employment opportunity at $20 an hour, and 17,343 (42%) are interested in a new job at $15 an hour. Finally, an estimated 4,711 people (11%) are interested in a new job at $10.

Figure 13: Available Labor by Desired Hourly Wage (for those within Necessary Commute Time)



The figure above suggests the obvious: the higher the wage, the larger the pool of available labor. As noted, 4,711 members of the "within the necessary commute time" subset of the labor pool are available for a new or different job at $10 an hour. At $9 an hour, there are 1,709 members of the pool available. As such, an increase of $1 per hour from $9 to $10 represents an increase of 3,002 workers and potential workers.

The graph 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. For example, 1,084 members of this subset are interested in a job at $8 an hour. At $9 an hour there are an estimated 1,709 individuals available. So, while there is certainly an increase in the number of available workers at this higher wage rate, the increase is only 625 individuals – a relatively small increase given the overall size of this subset of the Available Labor Pool.

Additional wage plateaus exist between $15 and $16 an hour (an increase of 375 individuals), and $18 and $19 an hour (an increase of 542 individuals).

Desired Wages by Occupational Sector for those within Necessary Commute Time

Table 7 shows the four main occupational sectors (employed only) of those within the necessary commute time subset of the Available Labor Pool. The table shows that 10% of the general laborers will take a new or different job at a wage of at $12 an hour, while 26% are available for new employment at a wage of $15 an hour. Of the skilled laborers, none are available for new employment at a wage of $12 an hour, while 5% are available at a wage of $15 an hour.

Regarding service workers, 24% are available at a wage of $12 an hour, while 32% are available at a wage of $15 an hour. Of the professional workers, none are available at a wage of $12 an hour, while 5% are available at a wage of $15 an hour.

Table 7: Cumulative Desired Wages by Occupational Sector

	General Labor		**Highly Skilled Labor**		**Service Sector**		**Professional**	
	(N= 43) (+/- 14.9% MoE)		(N= 19) (+/- 22.5% MoE)		(N= 53) (+/- 13.5% MoE)		(N= 20) (+/- 21.9% MoE)	
	Number	*Cumulative*	*Number*	*Cumulative*	*Number*	*Cumulative*	*Number*	*Cumulative*
$30 <	9,850	100%	4,352	100%	12,141	100%	4,581	100%
$30	7,829	79%	1,833	42%	9,977	82%	1,997	44%
$27	7,829	79%	1,374	32%	9,857	81%	1,880	41%
$24	7,072	72%	1,374	32%	8,174	67%	940	21%
$21	6,567	67%	916	21%	7,934	65%	940	21%
$18	4,294	44%	229	5%	6,251	51%	470	10%
$15	2,526	26%	229	5%	3,847	32%	235	5%
$12	1,010	10%	0	0%	2,885	24%	0	0%
$9	253	3%	0	0%	721	6%	0	0%
$6	0	0%	0	0%	240	2%	0	0%

Table 7 (previous page) shows data for working members of the Pool that are within the necessary commute time, with each occupational sector shown *independently* and excluding non-working pool members.

Table 8 (below) includes working service sector Pool members, working general labor Pool members, and non-working Pool members that are within the necessary commute time.[5]

Additionally, in Table 8, general laborers and service sector workers are classified in both sectors shown *if* they are willing to change fields of employment (see Figure 9, page 17).

In other words, Table 8 allows general laborers, service sector workers, and non-workers to "transfer" between employment sectors – providing much larger numbers of workers available for general labor and service sector jobs at various wages than is shown in Table 6.

Specifically, Table 8 *includes* data from respondents that:

1 are willing to commute the necessary distance from his/her community to the center of the labor basin, *and*
2 are willing to change their primary field of employment (for example: service sector employment to general labor employment), *and*
3a are currently non-employed, *or*
3b are employed as general laborers or service sector employees.[6]

Table 8: Cumulative Desired Wages Allowing for Transfer between Sectors

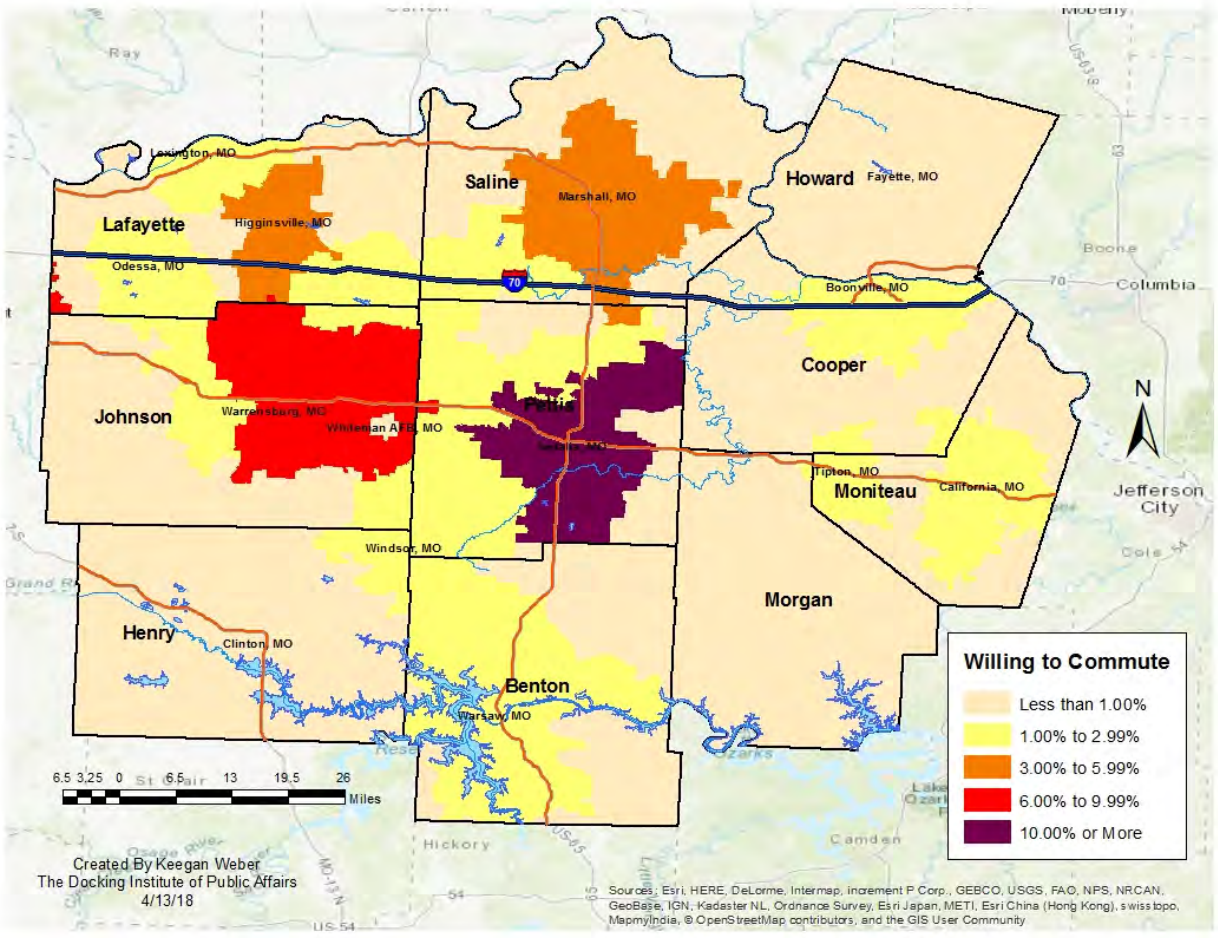
	General Labor		Service Sector	
	(N= 114)	(+/- 9.2% MoE)	(N= 120)	(+/- 8.9% MoE)
	Number	*Cumulative*	*Number*	*Cumulative*
$30 <	26,114	100%	27,488	100%
$30	22,449	86%	23,594	86%
$27	22,449	86%	23,365	85%
$24	19,929	76%	20,845	76%
$21	19,013	73%	19,929	73%
$18	14,890	57%	16,264	59%
$15	7,559	29%	8,934	33%
$12	4,581	18%	5,269	19%
$9	916	4%	916	3%
$6	229	1%	229	1%

[5] It is assumed that non-working Pool members will take jobs (all things being equal) in either general labor or service sectors.
[6] Highly skilled blue-collar workers and professional white-collar workers are excluded from Table 7 because it is assumed that, as a general rule, people in occupations such as Doctors, Lawyers, Engineers, Professors, Machinists, Electricians, etc. are unlikely to transfer into lower-skill general labor and service/support occupations. In addition, it is assumed that, because professional and highly skilled occupations require extensive education and/or training, lower-skilled general laborers and service-sector workers are unable to transfer to higher-skill labor or professional positions – at least in the near term.

Map 4 shows how each ZIP code area compares to all other ZIP code areas in terms of the percent of the *within the necessary commute time subset* of the Available Labor Pool. The map shows the following:

- Ten percent or more of this subset are located in ZIP code areas within Pettis County. (See purple area on the map.)
- Between 6% and 9.99% of this subset are located in ZIP code areas within Johnson County. (See red area on the map.)
- ZIP code areas in Lafayette and Saline counties each contain 3% to 5.99% of this subset. (See orange areas on the map.)
- ZIP code areas in all counties except Morgan and Howard counties contain 1% to 2.99% of this subset. (See yellow areas on the map.)
- Finally, up to 1% of this subset is located in ZIP code areas spread throughout the remaining Counties of the labor basin.

Map 4: Percent within Necessary Commute Time by ZIP Code



Subset 2: Underemployed Available Labor Pool Workers

Underemployment (individuals possessing skills and/or training that exceeds the responsibilities of their current jobs) is a significant issue in many communities. To assess underemployment in the Pettis County Labor Basin, *employed members of the Available Labor Pool* were presented with a scenario describing underemployment.[7] They were then asked a series of questions assessing if they perceive themselves as underemployed because 1) their skill levels are greater than their current job requires, 2) they possess higher levels of education than are required on the job, 3) they previously earned a higher income at a similar job, or 4) they are limited in the number of hours that they may work.

Of the 50,855 *employed members* of the Available Labor Pool (shown in Figure 15), almost a third (see Figure 15) answered "yes" to one or more of the questions presented above. These Pool members are considered "underemployed."

Figure 15 shows that the underemployed workers represent 23% (11,916 individuals) of the employed members of the Pool.

Figure 14: Employed and Non-Employed Members of the Available Labor Pool

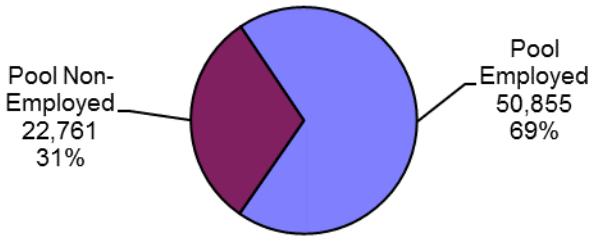
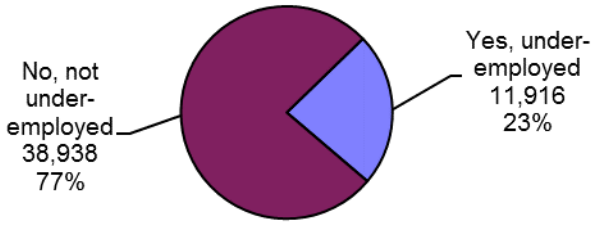


Figure 15: Underemployed Workers



[7] "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...?"

Table 9 shows that the average age of this subset of the Available Labor Pool is between 43 and 46 years old. About two-thirds (64%) are male, about a third (32.3%) hold at least a bachelor's degree, and a vast majority (93.5%) have earned a high school diploma.

Table 9 shows that the education levels of the underemployed workers differs somewhat from the overall Available Labor Pool. Those with higher education levels are less likely to consider themselves as underemployed than those with lower education levels. For example, the table below shows that 9.5% of the underemployed workers hold at least a master's degree, while the percentage for the Available Labor Pool as a whole is 15.9% (See Table 1, page 5).

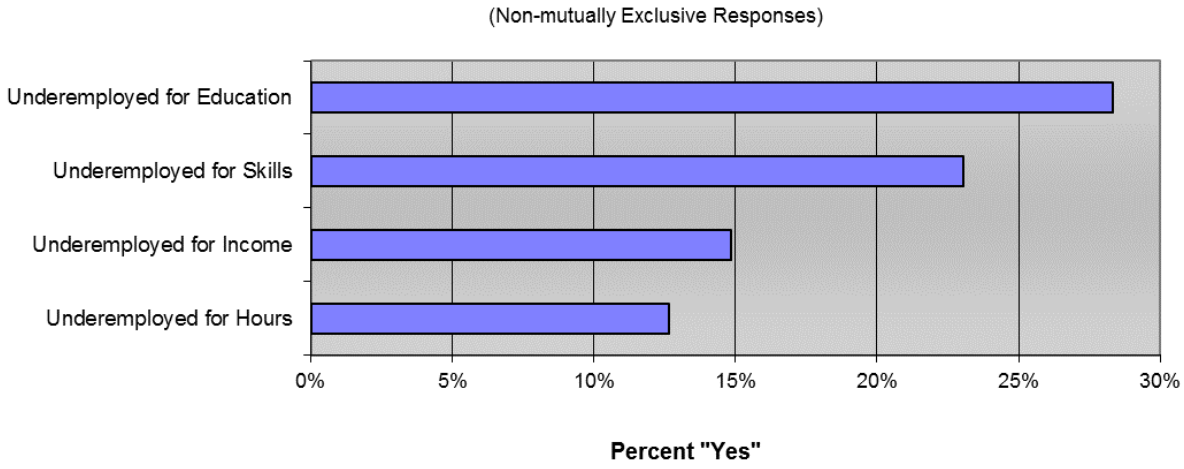
Table 9: Age, Gender, and Education Levels of Underemployed Workers

Age Information	Age in 2017		
Range	19 to 65		
Mean Average	43		
Median Average	46		
Gender	Number	Percent	
Female	4,287	36.0	
Male	7,629	64.0	
Total	11,916	100	
			Cumulative
Highest Level of Education Achieved			*Percent*
Doctoral Degree	208	1.7	1.7
Masters Degree	922	7.7	9.5
Bachelors Degree	2,724	22.9	32.3
Associates Degree	1,757	14.7	47.1
Some College (including current studer	2,684	22.5	69.6
High School Diploma	2,845	23.9	93.5
Less than HS Diploma	776	6.5	100.0
Total	11,916	100	

Figure 16 shows the varying percentage of positive responses (i.e., “yes” answers) to the various measures of underemployment.

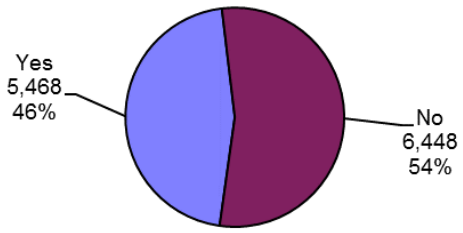
About 27% of this subset possess education levels exceeding those needed for their current jobs. About 23% possess skills not used currently on the job, and about 15% earned more money at a past but similar job. About 12% are unable to work as many hours as desired.

Figure 16: Reasons for Underemployment



Underemployed workers were asked if they “are available for a new or different job because they are underemployed?” Figure 17 shows that half (46% or 5,468 individuals) of the underemployed workers are seeking new employment to address underemployment.

Figure 17: Seeking New Employment to Address Underemployment



Occupational Sectors and Categories of Underemployed Workers

Figure 18 and Table 10 show the occupational sectors and categories of underemployed workers. Figure 18 shows that 35% of the underemployed workers are general laborers and 5% are highly skilled blue-collar workers. Most underemployed workers are employed as service sector workers (54%), while 6% hold professional positions.

Comparing Figure 18 with Figure 2 (page 6) suggests that fewer professional and highly skilled laborers but more general laborers and service sector employees consider themselves underemployed. Figure 2 (page 6) shows that the subset of working Available Labor Pool members consists of 25% general laborers, 13% highly skilled laborers, 48% service workers, and 14% professionals.

Figure 18: Occupational Sectors of Underemployed Workers

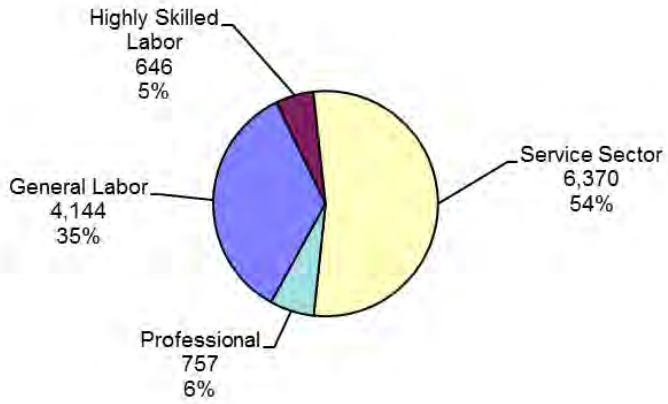


Table 10 shows the occupational categories of underemployed workers. The table shows that the four largest groups of underemployed workers are general laborers/delivery drivers and those holding similar positions (17%), manufacturing/maintenance/truck drivers (17.7%), customer service workers (23.8%), and education aids/teachers (10.9%).

Table 10: Occupational Categories of Underemployed Workers

	Number	Percent
General Labor/Delivery	2,030	17.0
Manufacturing/Maintenance/Trucking	2,114	17.7
Mechanic/Welder/Comp Tech	334	2.8
Crew Management/Protection Services	312	2.6
Customer Service	2,834	23.8
Clerical	954	8.0
Office or Dept Manager	595	5.0
Exec Management	212	1.8
Accounting/Engineering	545	4.6
Health Aid/Nurse	691	5.8
Education Aid/Teacher	1,296	10.9
Total	11,916	100.0

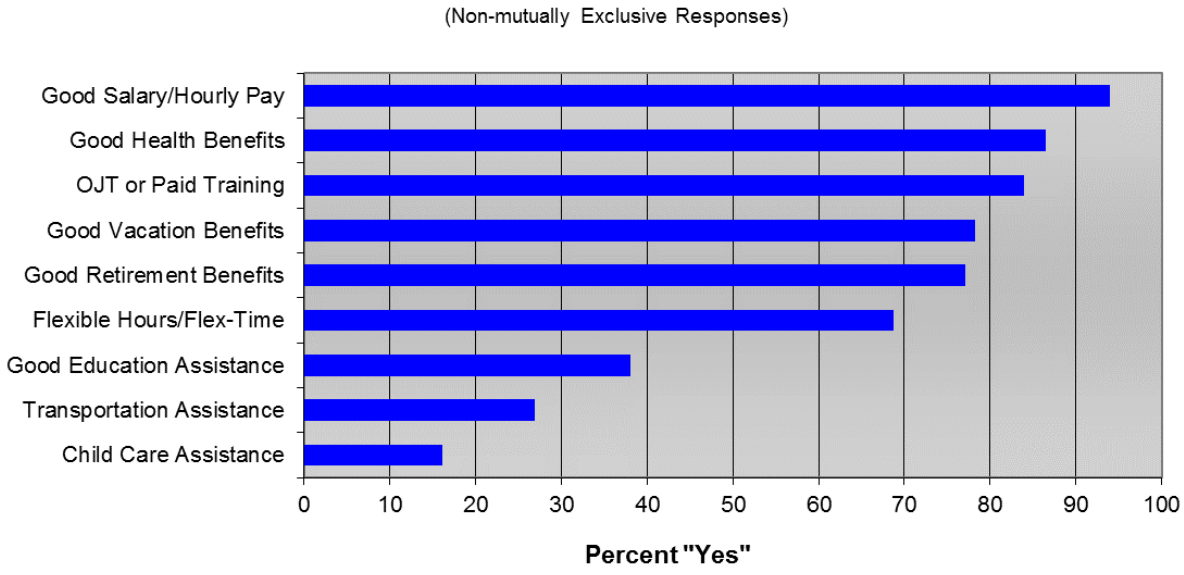
Considerations for Employment among Underemployed Workers

Figure 19 shows that the six most important benefits for this subset are, in order, good salary or hourly pay, good health benefits, on-the-job training (OJT) or paid training, good vacation benefits, good retirement benefits, and flexible hours/flex-time. All of these benefits are considered “very important” by about 70% or more among the underemployed workers.

Good educational assistance follows at about 37%.

Transportation assistance and child care assistance are considered “very important” by about 26% and 16% respectively.

Figure 19: Underemployed Workers – Benefits Very Important to Change Jobs



Subset 3: Those with Military Experience

This portion of the report addresses Available Labor Pool members with military experience – either serving currently or in the past.

Figure 20 shows that 14,274 (19%) members of the Available Labor Pool have military experience.

Figure 20: Military Experience

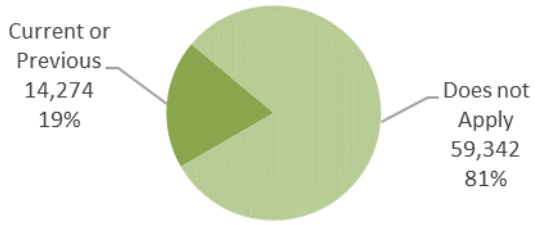


Table 11 shows that the average age of this subset of the Available Labor Pool is about 50 years old. More than two-thirds (69.2%) are male. More than two-fifths (41.7%) hold at least a bachelor's degree, and almost all (96.3%) have earned at least a high school diploma.

Table 11: Age, Gender, and Education Levels of Individuals with Military Experience

Age Information	Age in 2017		
Range	21 to 69		
Mean Average	49		
Median Average	50		
Gender	Number	Percent	
Female	4,392	30.8	
Male	9,882	69.2	
Total	14,274	100	
			Cumulative
Highest Level of Education Achieved			*Percent*
Doctoral Degree	534	3.7	3.7
Masters Degree	1,795	12.6	16.3
Bachelors Degree	3,626	25.4	41.7
Associates Degree	2,171	15.2	56.9
Some College (including current studer	3,721	26.1	83.0
High School Diploma	1,898	13.3	96.3
Less than HS Diploma	529	3.7	100
Total	14,274	100	

Occupational Sectors and Categories of Those with Military Experience

Figure 21 and Table 12 show the occupational sectors and occupational categories for those with military experience. Figure 21 shows that many (26%) are service sector workers currently. Professional workers and highly skilled laborers make up 8% and 6% respectively, and general laborers make up 17%. A large percentage (43%) of this subset is currently not working outside the home.

Figure 21: Occupational Sectors of Individuals with Military Experience

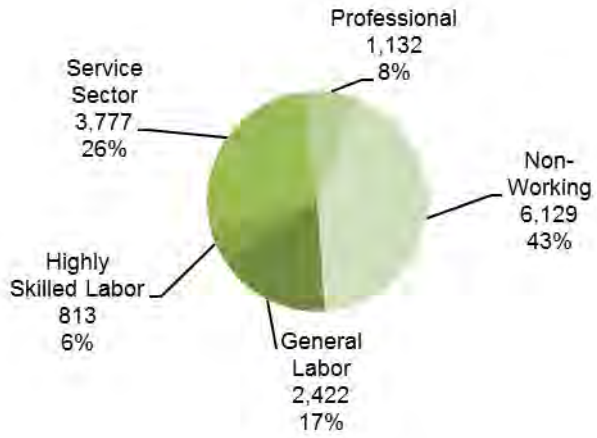


Table 12 shows the occupational categories of this subset of the Available Labor Pool. The figure shows that 12% currently work in manufacturing, maintenance, trucking, and other skilled positions, while almost 12% work in customer service. About 14% are homemakers, students, or unemployed, and more than a quarter (28.8%) are retired or disabled individuals.

Table 12: Occupational Categories of Those with Military Experience

	Number	Percent
General Labor/Delivery	709	5.0
Manufacturing/Maintenance/Trucking	1,713	12.0
Mechanic/Welder/Comp Tech	506	3.5
Crew Management/Protection Services	306	2.1
Customer Service	1,650	11.6
Clerical	492	3.4
Office or Dept Manager	1,002	7.0
Exec Management	352	2.5
Accounting/Engineering	352	2.5
Health Aid/Nurse	492	3.4
Education Aid/Teacher	141	1.0
Doctor/Professor/Attorney	429	3.0
Homemaker/Students/Unemployed	2,025	14.2
Retirees/Disabled	4,104	28.8
	14,274	100

Considerations for Employment among Those with Military Experience

Figure 22 shows the estimated number of this subset by desired hourly wage. The figure shows that 69% are interested in a new job at $25 an hour. More than half (61%) are interested in a new job at $20 an hour, while more than a third (39%) are interested at $15 an hour. Finally, 12% are interested in a new job at $10 an hour.

Figure 22: With Military Experience by Desired Hourly Wage

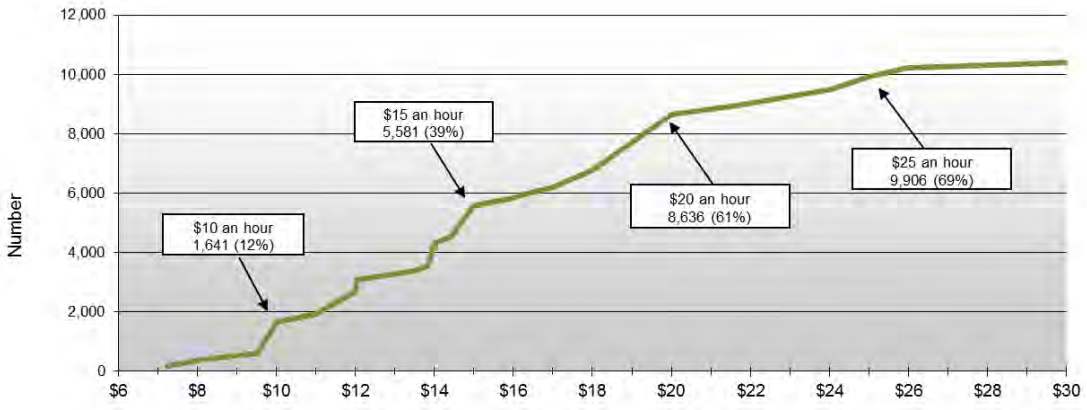
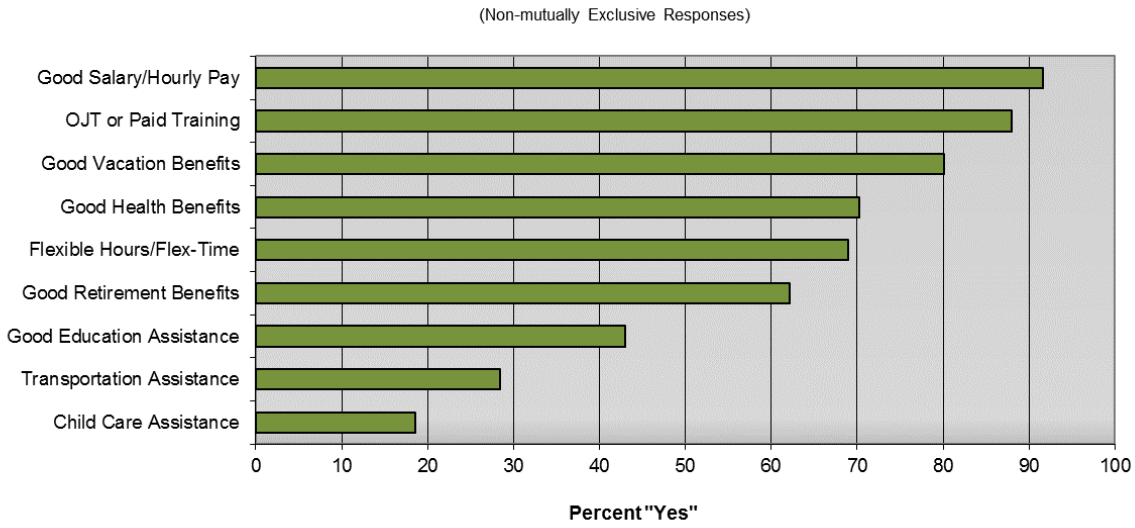


Figure 23 shows that the six most important benefits for this subset are, in order, good salary or hourly pay, on-the-job training (OJT) or paid training, good vacation benefits, good health benefits, flexible hours/flex-time, and good retirement benefits. All of these benefits are considered “very important” by 60% or more of those with military experience. Good educational assistance follows at about 43%.

Transportation assistance and child care assistance is considered “very important” by about 28% and 18%, respectively.

Figure 23: With Military Experience – Benefits Very Important to Change Jobs



Underemployment among Those with Military Experience

Of the *working members of this subset*, 22% consider themselves underemployed.

Figure 24: Underemployment among Those with Military Experience

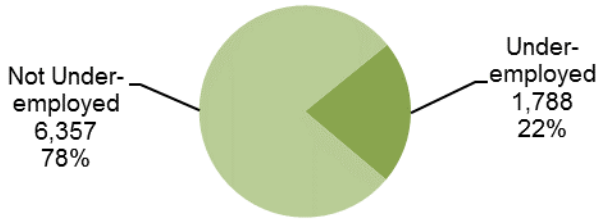
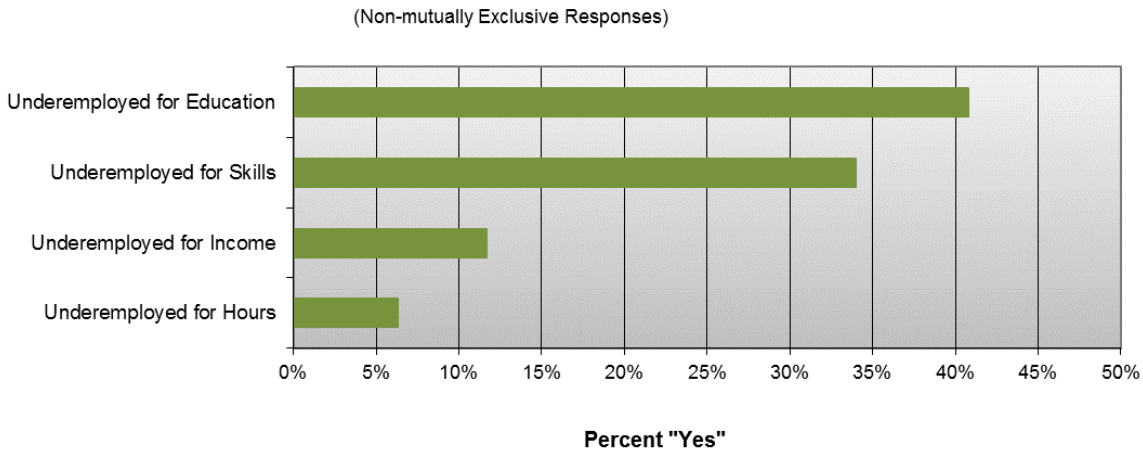


Figure 25 shows the percentages of the positive responses (i.e., “yes” answers) to the various measures of underemployment.

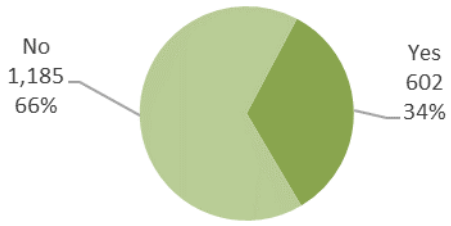
Of the *working and underemployed members of this subset*, 41% possess education levels exceeding those needed for their current jobs, about 34% possess skills not used currently on the job, about 12% earned more money at a past but similar job, and about 6% are unable to work as many hours as desired.

Figure 25: With Military Experience – Reasons for Underemployment



Underemployed workers were asked if they “are available for a new or different job because they are underemployed?” Figure 26 shows that 34% of the underemployed workers of this subset are seeking new employment to address underemployment.

Figure 26: With Military Experience – New Employment to Address Underemployment



Subset 4: Discouraged Available Labor Pool Members

This portion of the report addresses unemployed Available Labor Pool members who are not currently looking for work, but are interested in a new job. This subset includes nonworking Pool members who report being not-employed but are not full-time students, homemakers, retired, or disabled.

The number of members of this subset is 4,166 individuals.

Table 13 shows that the average age of this subset of the Available Labor Pool is between 46 and 49 years old. About two-thirds (67.9%) are female. Nearly a quarter (24.3%) hold at least a bachelor's degree, and a vast majority (90.6%) have earned at least a high school diploma.

Table 13: Age, Gender, and Education Levels of Discouraged Pool Members

Age Information	Age in 2017		
Range	19 to 66		
Mean Average	46		
Median Average	49		
Gender	Number	Percent	
Female	2,829	67.9	
Male	1,337	32.1	
Total	4,166	100	
			Cumulative
Highest Level of Education Achieved			*Percent*
Doctoral Degree	0	0.0	0.0
Masters Degree	369	8.9	8.9
Bachelors Degree	644	15.4	24.3
Associates Degree	532	12.8	37.1
Some College (including current studer	675	16.2	53.3
High School Diploma	1,556	37.4	90.6
Less than HS Diploma	390	9.4	100
Total	4,166	100	

Previous Occupational Groups of Discouraged Pool Members

Table 14 shows the previous occupation groups of *discouraged Pool members*.

The table shows that 28.6% of this subset previously worked in customer service and 14.3% worked in trucking or heavy equipment operation.

Table 14: Previous Occupational Groups of Discouraged Pool Members

	Number	Percent
General Labor	298	7.1
Maintenance	298	7.1
Truck Driving/Heavy Equipment Operator	595	14.3
General Customer Service	1,190	28.6
Office Management	298	7.1
Clerical	298	7.1
Software Development/Computer Programming	298	7.1
Health Aid	298	7.1
Nurse	298	7.1
Education Aid	298	7.1
Total	4,166	100.0

Considerations for Employment among Discouraged Pool Members

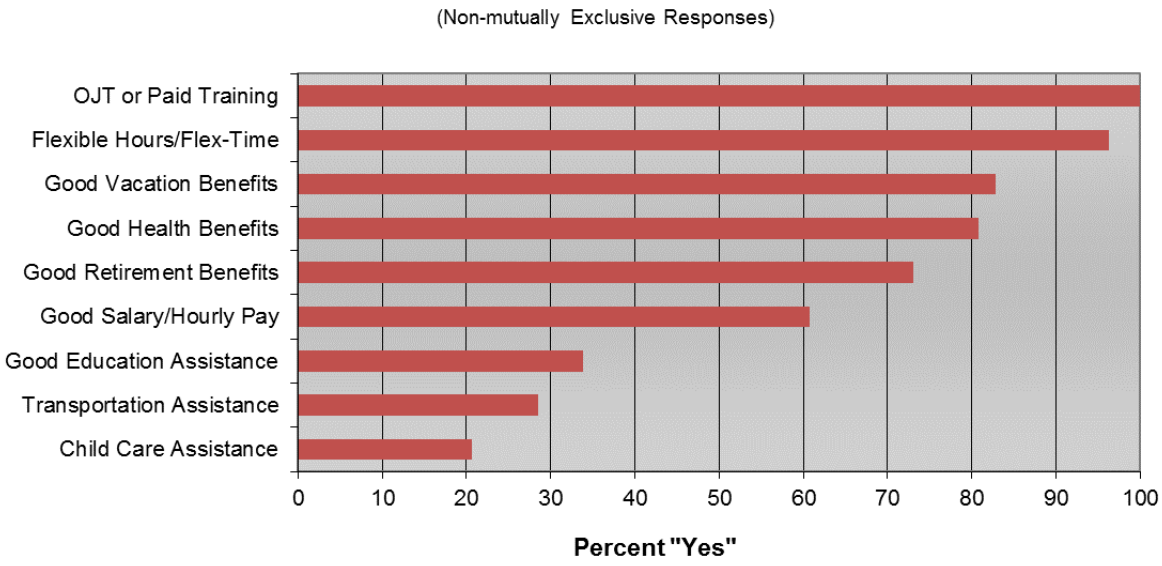
Figure 27 shows the estimated number of this subset by desired hourly wage. The figure shows that 94% are interested in a new job at $15 an hour or more, and almost half (48%) are interested at $10 an hour.

Figure 27: Discouraged Pool Members by Desired Hourly Wage

Figure 28 shows that the six most important benefits for this subset are, in order, on-the-job training (OJT) or paid training, flexible hours/flex-time, good vacation benefits, good health benefits, good retirement benefits, and good salary or hourly pay. All of these benefits are considered “very important” by 60% or more of discouraged Pool members.

Education benefits, transportation assistance, and child care are considered “very important” by about 34%, 29%, and 21%, respectively.

Figure 28: Discouraged Pool Members – Benefits Very Important for New Job



Comparative Analysis (2005, 2009, 2012, 2015, and 2018 Reports)

The Docking Institute of Public Affairs has conducted similar labor studies in 2005, 2009, 2012, and 2015. This section of the report compares some of the data collected from all five studies and 2018.

Table 15 shows the population, Civilian Labor Force, employment, average unemployment rate, and Available Labor Pool data presented in the five reports.

The population of the Pettis County Labor Basin has increased by 5,848 individuals from 2005 to 2018, while the Civilian Labor Force has decreased by about 4,512 workers during that same period.

The number of employed people in the labor basin has also decreased over the 13 years by 4,377. The unemployment rate increased from 2005 to 2012 (5.5% to 9.2%) but is now about 4.9%.

The table also shows the Available Labor Pools for each year. The Pool increased by 12,064 people from 2005 to 2012, but then decreased by 4,979 individuals from 2015 to 2018.

Table15: Key Population and Employment Indicators

Pettis County Labor Basin

	2005 Report	2009 Report	2012 Report	2015 Report	2018 Report
Basin Population	250,339	251,893	256,792	257,880	256,187
Civilian Labor Force	124,080	126,169	121,381	123,812	118,568
Employed	117,184	118,787	110,158	116,028	112,807
Average Unemployment Rate	5.5%	5.3%	9.2%	6.3%	4.9%
Available Labor Pool	66,531	67,336	74,220	78,595	73,616

The configuration of the Available Labor Pool has shifted over the past 13 years. Figure 29 shows that there was a larger proportion of non-employed Pool members in 2012, compared to other years.

There were higher percentages of “employed but interested” Pool members in 2015 and 2018 that other years.

Figure 29: Available Labor Pool Comparison

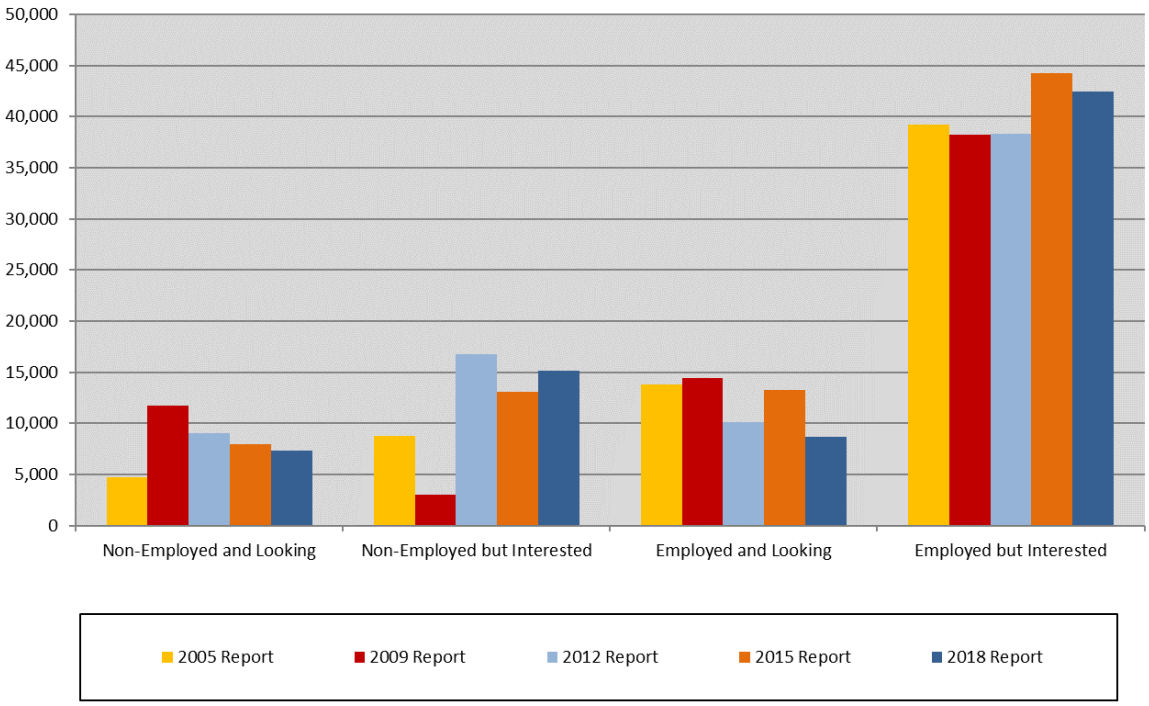


Table 16 compares occupational sectors and education levels from the five studies. The 2018 study stands out with the highest percentage of non-working pool members. The 2005 Pool had the highest percentage of general laborers, while the 2015 had the highest percentage of service sector employees.

The education levels among the five pools vary somewhat. The 2018 Pool has the highest percentage of educated workers, with about two-fifths (41.5%) holding at least bachelor's degrees (see cumulative columns).

Table 16: Available Labor Pool Occupational Sectors and Education Levels Comparison

	2005 Report			2009 Report			2012 Report			2015 Report			2018 Report		
Labor Sector															
	Number	Percent		Number	Percent		Number	Percent		Number	Percent		Number	Percent	
General Labor	16,201	24.4		13,524	20.1		12,694	17.1		13,809	17.6		12,919	17.5	
Highly Skilled Labor	4,403	6.6		3,990	5.9		5,245	7.1		7,475	9.5		6,406	8.7	
Service Sector	18,824	28.3		23,164	34.4		21,042	28.4		26,629	33.9		24,527	33.3	
Professional	13,535	20.3		12,371	18.4		9,407	12.7		9,633	12.3		7,003	9.5	
Non-Working	13,568	20.4		14,287	21.2		25,832	34.8		21,049	26.8		22,761	30.9	
Total	***66,531***	***100***		***67,336***	***100***		***74,220***	***100.1***		***78,595***	***100***		***73,616***	***100***	
Highest Education			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative
	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent
Doctoral Degree	588	0.9	0.6	1,587	2.4	2.0	2,417	3.3	3.3	1,742	2.2	2.2	2,177	3.0	3.0
Masters Degree	5,195	7.9	9.6	6,615	9.8	11.4	8,362	11.3	14.5	8,524	10.8	13.1	9,542	13.0	15.9
Bachelors Degree	10,444	15.7	25.1	12,874	19.1	28.7	8,803	11.9	26.4	16,337	20.8	33.8	18,818	25.6	41.5
Associates Degree	5,612	8.4	34.2	7,082	10.5	27.9	10,630	14.3	40.7	10,476	13.3	47.2	8,588	11.7	53.1
Some College	20,764	31.2	63.2	17,862	26.5	68.6	16,712	22.5	63.2	15,642	19.9	67.1	12,914	17.5	70.7
High School Diploma	19,045	28.6	94.6	17,387	25.8	95.3	22,451	30.2	93.5	21,664	27.6	94.6	17,932	24.4	95.0
Less HS Diploma	4,883	7.3	***100***	3,929	5.8	***100***	4,845	6.5	***100***	4,211	5.4	***100***	3,645	5.0	***100***
Total	***66,531***	***100***		***67,336***	***100***		***74,220***	***100***		***78,595***	***100***		***73,616***	***100***	

Table 17 shows the numbers and percentages of those "willing to take a job outside of their primary field." The table also shows responses to questions regarding various work shifts.

The table shows that the percentage of Pool members willing to take a job outside of their primary field varies from 87.7% (2005) to 77.9% (2015).

Table 17: Willing to Work Outside of Field and Work Shift Comparison

	2005 Report		2009 Report		2012 Report		2015 Report		2018 Report	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Willing to Take Job Outside of Primary Field?	58,364	87.7	55,485	82.4	61,009	82.2	61,187	77.9	62,487	84.9
Will Work 2nd or Night Shift?	n/a	n/a	37,910	56.3	43,048	58.0	42,534	54.1	45,041	61.2
Will Work Weekends?	n/a	n/a	38,449	57.1	44,680	60.2	42,385	53.9	44,304	60.2
Will Work Rotating Shifts?	n/a	n/a	29,897	44.4	37,852	51.0	33,620	42.8	29,261	39.7

Figure 30 shows a comparison of “minutes willing to commute” for the four studies.

While the patterns are similar, the “drop-off” between 30 minutes and 35 minutes seems the most dramatic in the 2005 and 2012 studies.

Figure 30: Available Labor by Commute Minutes Comparison

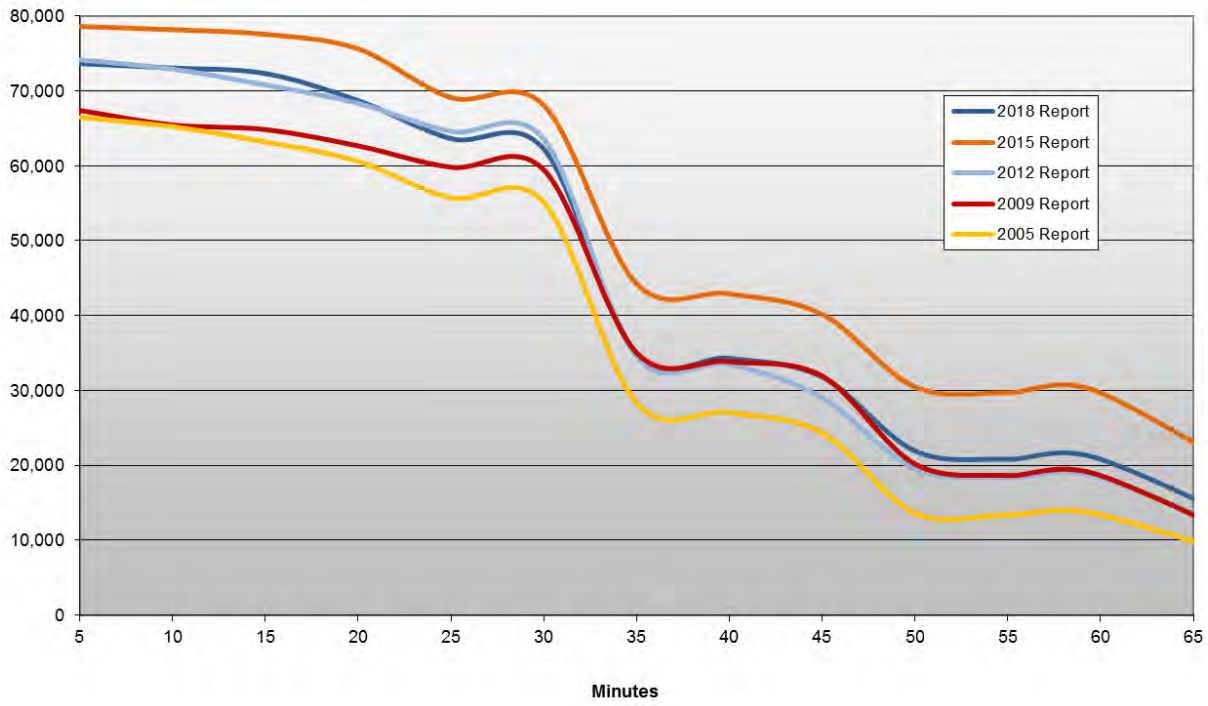


Table 18 shows desired benefits ranked in order by 2018 data. The table shows that good salary/hourly pay is the most important benefit in the 2009, 2015, and 2018 studies, whereas good health benefits ranked highest in 2005 and 2012.

Table 18: Important Benefits to Change Employment Comparison

	2005 Report	2009 Report	2012 Report	2015 Report	2018 Report	
Ranked by 2018 Report	*Percent Responding "Yes"*					*Change '15 - '18*
Good Salary/Hourly Pay	79.1	89.9	79.7	86.4	87.3	*-0.9*
OJT or Paid Training	87.4	75.7	81.7	84.3	84.7	*-0.4*
Good Health Benefits	88.6	74.7	84.2	82.2	81.4	*0.8*
Good Vacation Benefits	78	75.3	70.8	81.7	78.2	*3.5*
Good Retirement Benefits	86	80.1	82.3	84.6	77.2	*7.4*
Flexible Hours/Flex-Time	71	69.7	66.8	72.9	70.4	*2.5*
Good Education Assistance	68.7	52.5	54.7	54.9	38.4	*16.5*
Transportation Assistance	n/a	26.2	33.4	27.2	25.2	*2.0*
ChildCare Assistance	n/a	n/a	n/a	n/a	16.9	*n/a*

Figure 31 shows a comparison of the desired wages of the five study groups. The desired wage line shows that larger proportions of the 2005, 2009, and 2012 Pools are available for work in the $8 to $19 an hour or so range when compared to the 2015 and 2018 Pools.

Figure 31: Available Labor Pool by Hourly Wage Comparison

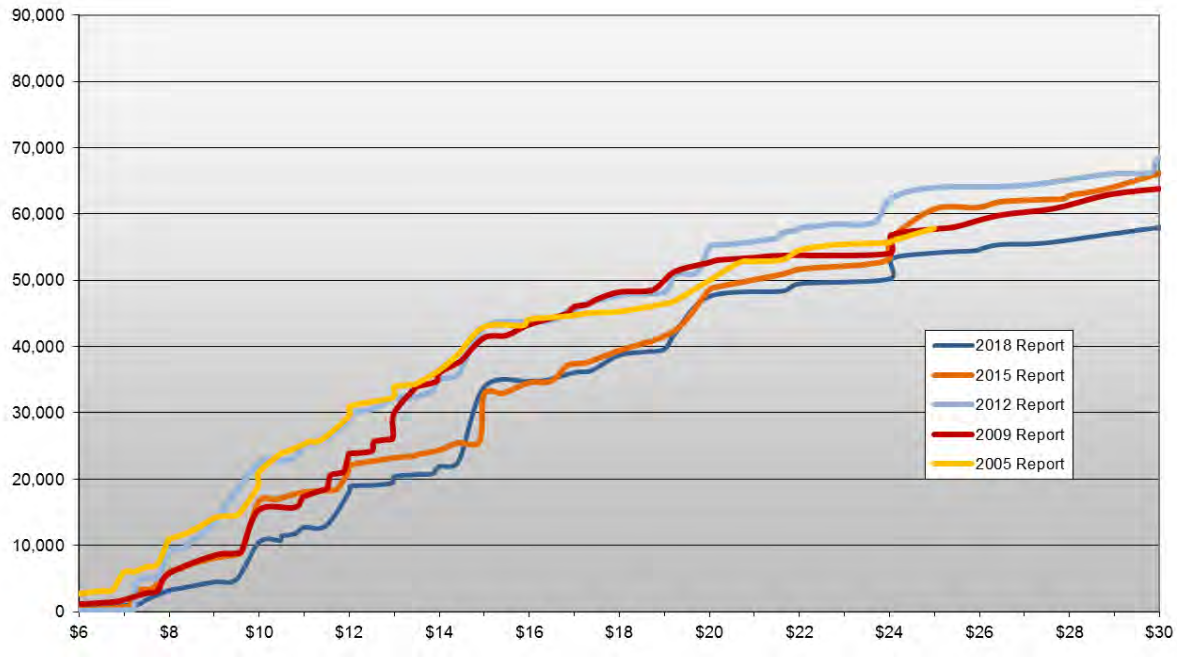


Table 19 shows a comparison of the underemployed members of the Available Labor Pools for the five studies.

The percentage of underemployed workers was smallest in 2018 (23.4%) and largest in 2005 (53%). Interestingly, the 2005 Pool had the largest percentage of employed members (80%) and 2012 had the smallest (65.2%).

The percentage of underemployed workers in general labor occupations is largest in 2018 (34.8%) and smallest in 2009 (23.1%). The percentage of underemployed professional workers is smallest in 2018 (6.4%) and largest in 2009 (15.7%).

Examining the cumulative percentage columns in the educational attainment (Highest Education) section of the table shows that 49.9% of the underemployed workers in 2015 had associates degrees at least, while these percentages are smaller for the other study periods.

Table 19: Underemployed Workers Occupational Sectors and Education Levels Comparison

	2005 Report			2009 Report			2012 Report			2015 Report			2018 Report		
	Number	Percent		Number	Percent		Number	Percent		Number	Percent		Number	Percent	
Employed of Pool	52,962	80.0		53,049	79.0		48,388	65.2		57,547	73.2		50,855	69.1	
Underemployed Wrkrs	***28,032***	***53.0***		***16,551***	***31.0***		***12,532***	***25.9***		***17,993***	***31.3***		***11,916***	***23.4***	
Willing to Change Job to Address Status	24,900	89.0		14,251	86.0		10,465	83.5		9,000	50.0		5,468	45.9	
Labor Sector															
	Number	Percent		Number	Percent		Number	Percent		Number	Percent		Number	Percent	
General Labor	8,227	29.3		3,820	23.1		3,275	26.1		5,187	28.8		4,144	34.8	
Highly Skilled Labor	3,520	12.6		1,735	10.5		1,279	10.2		2,458	13.7		646	5.4	
Service Sector	12,882	46.0		8,399	50.7		6,850	54.7		8,417	46.8		6,370	53.5	
Professional	3,403	12.1		2,597	15.7		1,128	9.0		1,931	10.7		757	6.4	
Total	***28,032***	***100***		***16,551***	***100***		***12,532***	***100***		***24,737***	***100***		***11,916***	***100***	
Highest Education			Cumulative			Cumulative			Cumulative			Cumulative			Cumulative
	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent
Doctoral Degree	476	1.7	1.7	775	4.7	4.7	320	2.6	2.6	418	2.3	2.3	208	1.7	1.7
Masters Degree	2,006	7.2	8.9	439	2.7	7.3	826	6.6	9.1	2,248	12.5	14.8	922	7.7	9.5
Bachelors Degree	4,841	17.3	26.1	3,225	19.5	26.8	1,365	10.9	20.0	3,990	22.2	37.0	2,724	22.9	32.3
Associates Degree	2,473	8.8	34.9	2,627	15.9	42.7	1,807	14.4	34.5	2,314	12.9	49.9	1,757	14.7	47.1
Some College	9,812	35.0	69.9	3,708	22.4	65.1	4,463	35.6	70.1	3,453	19.2	69.0	2,684	22.5	69.6
High School Diploma	6,815	24.3	94.3	5,099	30.8	95.9	3,135	25.0	95.1	4,704	26.1	95.2	2,845	23.9	93.5
Less HS Diploma	1,609	5.7	***100***	678	4.1	***100***	616	4.9	***100***	865	4.8	***100***	776	6.5	***100***
Total	***28,032***	***100***		***16,551***	***100***		***12,532***	***100***		***24,737***	***100***		***11,916***	***100***	

Methods

The Pettis County Labor Basin has a total population of 256,187 and a Civilian Labor Force of 118,568. The unemployment rate was about 4.85% at the time of the study. The basin contains an Available Labor Pool of 73,616 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 (BLS) 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 who are available for work and 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 labor force dynamics in the Pettis 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, unemployed people 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.[8] 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 given the right opportunities, 3) currently working *and* looking for other 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.[9] Secondly, the number of potential workers is then *restricted* to those individuals who indicate that they are looking for work or are interested in new employment. The advantage of this methodology is that it allows researchers to examine

[8] 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).

[9] 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 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.

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 Pettis County Labor Basin.

Description of Survey Research Methods

Data for the 2018 study were collected from a random digit telephone survey of adults living in 20 counties in west central Missouri: Bates, Benton, Caldwell, Carroll, Cass, Chariton, Clay, Cooper, Henry, Hickory, Howard, Jackson, Johnson, Lafayette, Moniteau, Morgan, Pettis, Ray, Saline, and St. Clair.[10] Surveying took place from September 2017 through January 2018, and utilized a Computer Assisted Telephone Interviewing (CATI) system. A total of 3,211 households were successfully contacted during the data collection period, and a randomly selected adult in each was asked to participate in the study.[11] In 1,748 households, the selected adult agreed to be interviewed. This represents a cooperation rate of 53.8% and a margin of error of +/-2.36%.

Survey respondents that were 65 years of age or older, retired, and not looking for work nor 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 1,206 and are considered eligible respondents. Of these respondents, 612 or 51% were looking for work or are interested in new or different employment. This subgroup is the Available Labor Pool for the study region. The margin of error for the region-wide Available Labor Pool is +/- 3.96%.

The Pettis County Labor Basin encompasses 10 of the 20 counties: Benton, Cooper, Henry, Howard, Johnson, Lafayette, Moniteau, Morgan, Pettis, and Saline. A total of 590 cooperating and eligible respondents lie within the basin. Of these respondents, 321 constitute 2018 Available Labor Pool for the Pettis County Labor Basin (Margin of Error = +/- 5.47%).

Data collection for the 2005, 2009, 2012, and 2015 labor studies used the same methods. 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

[10] 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.

[11] 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.

valid, reliable, and unbiased. Question wording and design of the survey instrument is the property of the Docking Institute.[12]

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

Glossary of Terms

Pettis County Labor Basin – The Pettis County Labor Basin includes Benton, Cooper, Henry, Howard, Johnson, Lafayette, Moniteau, Morgan, Pettis, and Saline 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 workers 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 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 at which a respondent would consider accepting 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.

Within the Necessary Commute Time – "Necessary Commute Time" is any number of minutes that a respondent is willing to travel that is equal to or greater than the estimated travel 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 to be within the necessary commute time for a new job.

Underemployment – Individuals who perceive themselves as 1) possessing skills and/or training levels that exceed the responsibilities of their current job; 2) have educations that exceed those necessary for their current job; 3) have earned a higher salary/hourly wage for a previous but similar job, and/or 4) are unable to work as many hours as desired at their current job.

Military Experience – Individuals who are currently serving or who have previously served in the armed forces.

Discouraged Pool Members – Non-working, non-students, and non-retired individuals who are NOT looking for work, but are interested in a new job.

Job Sectors – Job sectors include the following (with examples shown):

- ***General Labor*** includes occupations such as cleaning, construction, delivery, and maintenance.
- ***Highly Skilled Blue Collar*** includes occupations such as police, fire-fighting, postal worker, welder, highly skilled mechanic, computer technician, and lab technician.
- ***Service Sector*** includes occupations such as clerical work, waitress, retail sales clerk, bookkeeper, para-professional, certified nurse's assistant, nurse, teaching, and small business management.
- ***Professional White Collar 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
$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

Hourly Wage	Annual Salary
$30.50	$63,440
$31.00	$64,480
$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
$50.50	$104,000
$51.00	$105,040
$51.50	$106,080
$52.00	$107,120
$52.50	$108,160
$53.00	$109,200
$53.50	$110,240
$54.00	$111,280
$54.50	$112,320
$55.00	$113,360

End of Report