

Pettis County Labor Basin

Labor Availability Analysis – 2015

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

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



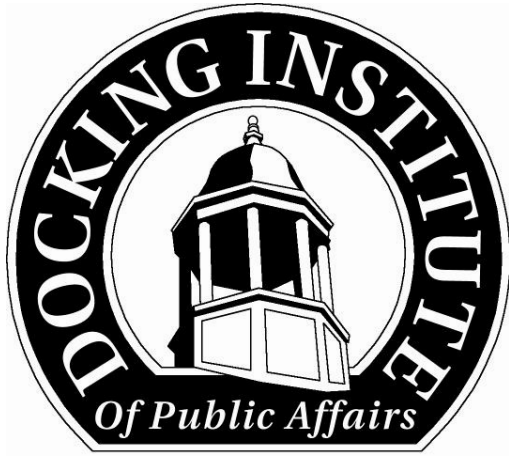
Prepared For

Central Missouri Economic Development Alliance

By

The Docking Institute of Public Affairs

Copyright © 2015
All Rights Reserved



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

Gary D. Brinker, PhD
Director

Michael S. Walker, MS
Assistant Director

Jian Sun, PhD
Research Scientist

Bradley Pendergast
Survey Center Manager

Lynette Ottley
Administrative Associate

Mission:

To Facilitate Effective Public Policy Decision-Making.

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

Pettis County Labor Basin Labor Availability Analysis – 2015

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

Prepared By:

Michael S. Walker, M.S.
Assistant Director,
Docking Institute of Public Affairs

Prepared For:

Central Missouri Economic Development Alliance

Copyright © 2015
All Rights Reserved

Table of Contents

| | |
|--|-----|
| List of Tables | ii |
| List of Figures | iii |
| List of Maps | iv |
| Executive Summary | 1 |
| The Pettis County Labor Basin..... | 2 |
| <i>Components of the Report</i> | 3 |
| The Pettis County Labor Basin's Available Labor Pool..... | 4 |
| Current Skills and Work Experiences | 8 |
| Educational Experience | 14 |
| Considerations for Employment | 16 |
| Wage Demands of Available Labor Pool..... | 19 |
| Subsets of the Available Labor Pool..... | 20 |
| <i>Subset 1: Within Necessary Commute Time</i> | 20 |
| • <i>Wage Demands (of those Within Necessary Commute Time)</i> | 20 |
| • <i>Wage Demands by Occupational Sector (for those Within Necessary Commute Time)</i> | 21 |
| <i>Subset 2: Underemployed Available Labor Pool Workers</i> | 24 |
| Comparative Analysis (2009, 2012, and 2015 Reports) | 27 |
| Methods | 33 |
| <i>Explaining the Civilian Labor Force</i> | 33 |
| <i>Defining the Available Labor Pool</i> | 33 |
| Glossary of Terms..... | 35 |
| Appendix: Hourly Wage to Annual Salary Conversion Chart | 36 |

List of Tables

| | |
|---|----|
| Table 1: Age, Gender, and Education Levels of Available Labor Pool..... | 6 |
| Table 2: Major Occupational Categories of Available Labor | 7 |
| Table 3: Current Work Experience plus Previous Work or Training Experience | 8 |
| Table 4: Previous Work Experience of Non-Workers..... | 10 |
| Table 5: Desired Benefits and Current Benefits Offered..... | 18 |
| Table 6: Cumulative Wage Demands for Occupational Sectors | 21 |
| Table 7: Cumulative Wage Demands Allowing Mobility between General Labor and Service Sector..... | 22 |
| Table 8: Highest Level of Education Achieved Among Underemployed | 25 |
| Table 9: Key Population and Employment Indicators | 27 |
| Table 10: Available Labor Pool Occupational Sectors and Education Levels Comparison | 29 |
| Table 11: Willing to Work Outside of Field and Work Shift Comparison | 29 |
| Table 12: Important Benefits to Change Employment Comparison | 30 |
| Table 13: Underemployed Workers Occupational Sectors and Education Levels Comparison.. | 32 |

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)..... | 7 |
| Figure 3: Current Work Experience plus Previous Work or Training Experience | 9 |
| Figure 4: Work Experience / Willing to Work in Field | 11 |
| Figure 4a: Work Experience in Distribution Center or Warehouse..... | 12 |
| Figure 4b: Work Experience in Manufacturing or Processing Plant | 12 |
| Figure 5: Undergraduate College Major | 14 |
| Figure 6: Community College Experience | 15 |
| Figure 6a: Community College Study Area | 15 |
| Figure 7: Considerations for Employment | 16 |
| Figure 8: Available Labor by Commute Minutes | 17 |
| Figure 8a: Being Closer to Work | 17 |
| Figure 9: Benefits Very Important to Change Employment | 18 |
| Figure 10: Available Labor by Hourly Wage | 19 |
| Figure 11: Available Labor by Hourly Wage (for those Within Necessary Commute Time)..... | 20 |
| Figure 12: Employed and Unemployed Members of the Available Labor Pool | 24 |
| Figure 13: Underemployed Workers..... | 24 |
| Figure 14: Reasons for Underemployment..... | 25 |
| Figure 15: Occupational Sectors of Underemployed Workers | 26 |
| Figure 17: Available Labor Pool Comparison | 28 |
| Figure 18: Available Labor by Commute Minutes Comparison | 30 |
| Figure 19: Available Labor Pool by Hourly Wage Comparison | 31 |

List of Maps

| | |
|--|----|
| Map 1: Pettis County Labor Basin | 2 |
| Map 2: Percent of Total Available Labor in Basin by Zip Code | 5 |
| Map 3: Workplaces by Zip Code | 13 |
| Map 4: Percent Within Necessary Commute Time by Zip Code | 23 |

Pettis County Labor Basin Labor Availability Analysis

Executive Summary

The Pettis County Labor Basin includes Benton, Cooper, Henry, Howard, Johnson, Lafayette, Moniteau, Morgan, Pettis, and Saline Counties in Missouri. The purpose of this report is to assess the “Available Labor Pool” in this labor basin. The “Available Labor Pool” represents those who indicate that they are looking for employment or are interested in changing their jobs for the right employment opportunity.

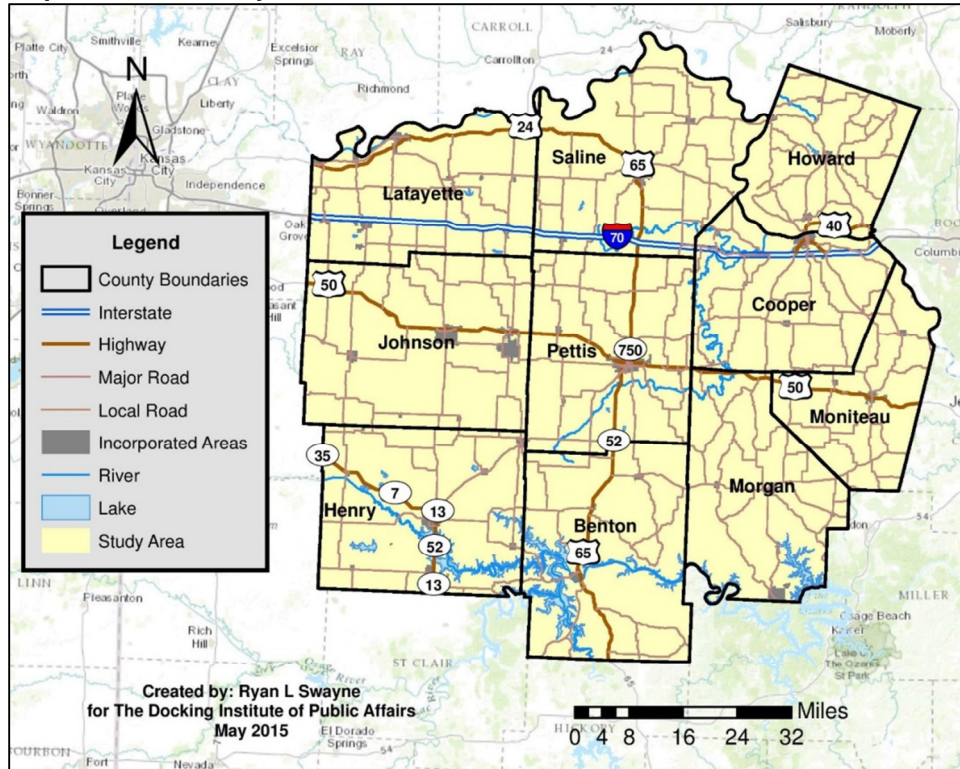
The Docking Institute’s independent analysis of this labor basin shows that:

- The population of the Pettis County Labor Basin is 257,880. About 30% of the population (or 78,595 individuals) is considered the Available Labor Pool.
- Of the non-working members of the Available Labor Pool, an estimated 7,943 (10.1%) are currently looking for work and 13,106 (16.7%) are interested in working for the right opportunities. Of the working members of the Available Labor Pool, 13,295 (16.9%) are currently looking for work, while 44,251 (56.3%) are interested in a different job given the right opportunities.
- About two-thirds (67.1%) of the Available Labor Pool has at least some college experience and about 95% has at least a high school diploma. The average age for members of the Pool is about 45 years old, and women make up half (49.7%) of the Pool.
- An estimated 17.6% of the Available Labor Pool are currently employed as general laborers, while an additional 9.5% work in government services or technical/high skill blue-collar occupations. An estimated 33.9% members of the Pool work in service sector jobs, while 12.3% work in professional white-collar jobs. About a quarter (26.8%) is not currently working.
- About 78% of the Available Labor Pool indicates that they are “willing to work outside of their primary field of employment for a new or different employment opportunity.”
- Half (51%) of the members of the Available Labor Pool will commute up to 45 minutes, one-way, for an employment opportunity, while 87% will commute up to 30 minutes for employment.
- The five most important desired benefits in order are good salary or hourly wage, good retirement benefits, on-the-job (OJT) or paid training, good health benefits, and good vacation benefits.
- An estimated 16,589 members (21%) of the Available Labor Pool are interested in a new job at \$10 an hour, 32,739 (42%) are available at \$15 an hour, and 48,490 (62%) are available at \$20 an hour.
- Of the 57,547 members in the subset of *employed members* of the Available Labor Pool, 17,993 (31%) consider themselves underemployed.
- A comparison of data presented in 2012 and 2015 for the labor region suggests that there is a larger proportion of *employed* members of the 2015 pool than the 2012 pool.

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) one of the 10 counties 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 257,880, and a Civilian Labor Force of 123,812. The total number of employed is 116,028 and the average unemployment rate was about 6.3% at the time of this study. The Docking Institute's analysis suggests that the basin contains an Available Labor Pool of 78,595 individuals.

The Available Labor Pool is composed of workers categorized as either 1) currently not working *and* looking for full-time employment, 2) not working *but* interested in full-time employment, 3) currently working *and* looking for other employment, and 4) currently employed *but* interested in different employment for the right opportunities. Please see the Methods section – page 33 – for more information about the Institute’s Available Labor Pool analysis methodology and the survey research methods used for this study. See the glossary – page 35 – for definitions of terms used throughout the 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 questions:

- What proportion of the labor force – employed, unemployed, homemakers, students, retired and disabled – are interested in a new employment opportunity?
- What skills and education levels do those interested in new employment have?
- What types of jobs have these workers and potential workers had in the past?
- What types of jobs have currently non-working workers had in the past?
- What types of considerations (pay, benefits, commute time) shape their decision-making?
- What are some of the characteristics of the general laborers, high skill blue-collar workers, service and support workers and professional white-collar workers?
- What proportion of the Available Labor Pool is willing to change fields of employment?
- What work shifts are Available Labor Pool members willing to work?

Two Subsets of the Available Labor Pool

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

- Those living “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 commute time necessary for the respondent to travel from his or her Zip Code of residence to the Zip Code at the center of the labor basin.
- Those that consider themselves as “underemployed.”

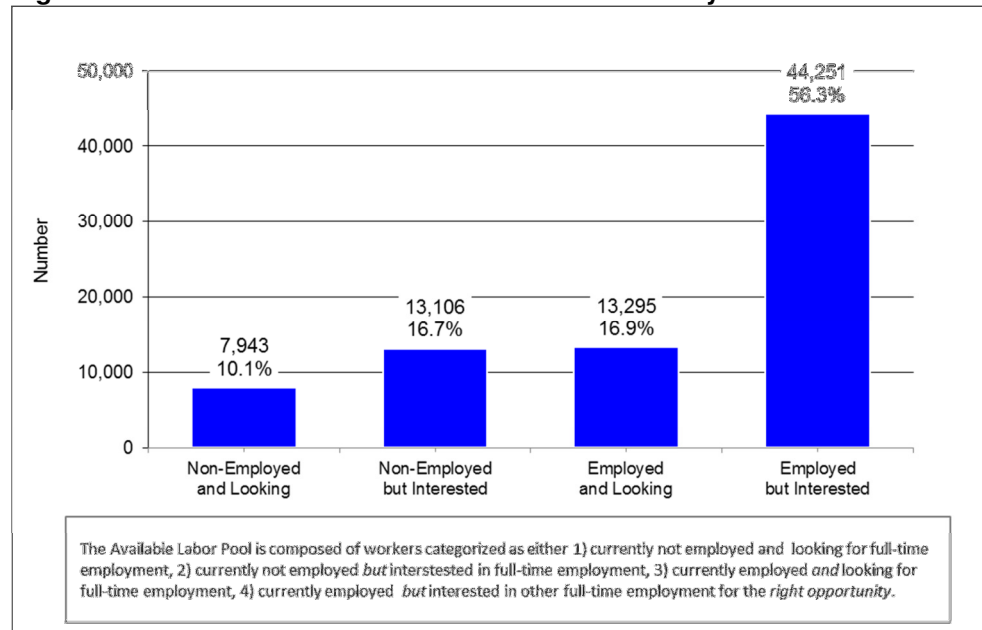
Comparative Analysis

Finally, this report provides a comparative analysis of key findings from the 2005, 2009, 2012, and 2015 labor availability reports conducted in the Pettis County area.

The Pettis County Labor Basin's Available Labor Pool

It is estimated that 7,943 (10.1%) members of the Available Labor Pool) are non-employed¹ *and* looking for employment, while 13,106 (16.7%) are non-employed *but* interested in a job for the right opportunities. In addition, 13,295 (16.9%) members of the Pool are employed *and* currently looking for different employment, while 44,251 (56.3%) are employed *but* interested in new employment for the right opportunities.

Figure 1: The Available Labor Pool for the Pettis County Labor Basin



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 Pettis County Labor Basin. The map shows:

- Ten percent or more of the entire labor basin's Available Labor Pool is located in Zip Codes areas within Johnson and Pettis counties. (See purple areas in the map.)
- Between 5% and 9.99% of the entire labor basin's Available Labor Pool is located in Zip Code areas within Henry and Saline counties. (See red areas in the map.)
- Between 2% and 4.99% of the entire labor basin's Available Labor Pool is located in Zip Code areas within Benton, Cooper, Henry, Moniteau, Morgan, Johnson, Lafayette, and Pettis counties. (See brown areas in the map.)
- Zip Code areas in seven counties contain 1% to 1.99% of the basin's Available Labor Pool. (See orange areas in the map.)
- Zip Codes areas in all 10 counties contain less than 1% of the Available Labor Pool. (See peach and yellow areas in the map.)

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

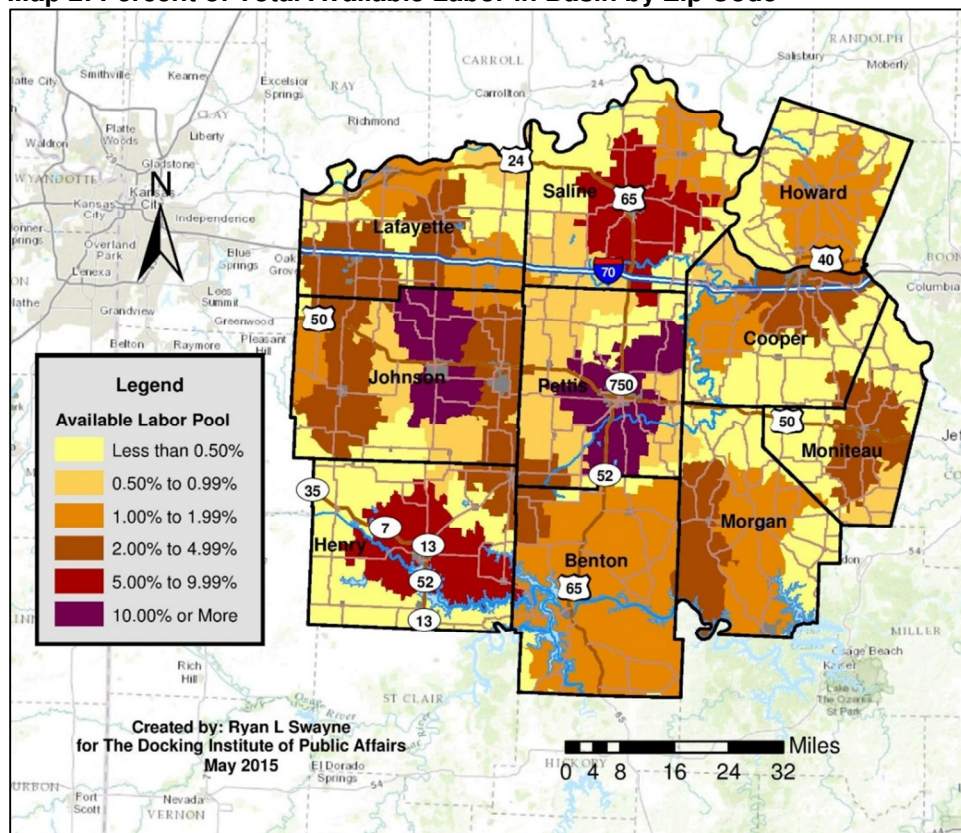


Table 1 shows the gender, age, and education levels of the 78,595-member Available Labor Pool. Slightly less than half (49.7%) of the Pool is women, and the average age is about 45 years old. Most (94.6%) have **at least** a high school diploma, about two-thirds (67.1%) have **at least** some college education, and a third (33.8%) have **at least** a bachelor's degree.

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

| | | | |
|--|-------------|---------|---|
| Current Year | Age in 2015 | | |
| Range | 18 to 75 | | |
| Average | 45 | | |
| Median | 46 | | |
| Gender | Number | Percent | |
| Female | 39,053 | 49.7 | |
| Male | 39,543 | 50.3 | |
| Total | 78,595 | 100 | |
| Highest Level of Education Achieved | | | Cumulative Percent |
| Doctoral Degree | 1,742 | 2.2 | 2.2 |
| Masters Degree | 8,524 | 10.8 | 13.1 |
| Bachelors Degree | 16,337 | 20.8 | 33.8 |
| Associates Degree | 10,476 | 13.3 | 47.2 |
| Some College (including current students) | 15,642 | 19.9 | 67.1 |
| High School Diploma | 21,664 | 27.6 | 94.6 |
| Less HS Diploma | 4,211 | 5.4 | 100 |
| Total | 78,595 | 100 | |
| "Do you speak Spanish?" | Number | Percent | |
| "Yes" | 13,220 | 16.8 | |
| <i>Speak Very Well</i> | 1,110 | 8.4 | These percentages represent portions of 16.8% |
| <i>Speak Fairly Well</i> | 2,029 | 15.3 | |
| <i>Speak Only a Little</i> | 10,081 | 76.3 | |
| | | 100 | |

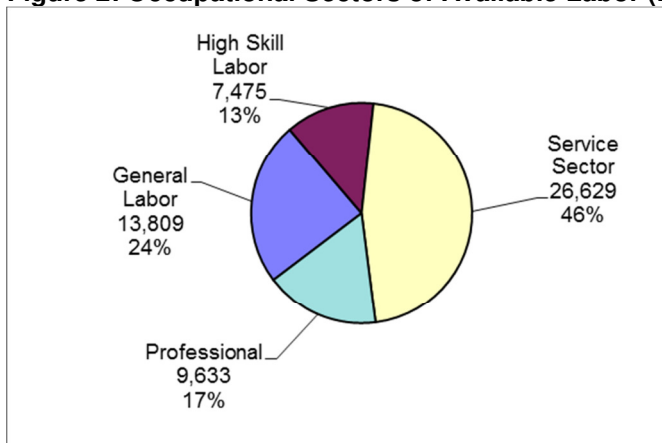
Table 2 shows the various occupational categories of the 78,595-member Available Labor Pool. General labor occupations represent 17.6% of the entire Available Labor Pool, while high-skilled, blue-collar jobs make up 9.5%. Traditional service-related occupations represent 33.9% of the Available Labor Pool, while professional occupations represent 12.3%. Non-employed members of the Pool make up about a quarter (26.8%) of the total.

Table 2: Major Occupational Categories of Available Labor

| | Number | Percent | Years at Job | |
|-------------------------------------|---------------|-------------|--------------|-------------|
| | | | Mean | Median |
| General Labor/Delivery | 6,060 | 7.7 | 12.8 | 10.0 |
| Manufacturing/Maintenance/Trucking | 7,749 | 9.9 | 11.1 | 8.0 |
| Total General Labor | 13,809 | 17.6 | 12.0 | 9.0 |
| Mechanic/Welder/Comp Tech | 4,128 | 5.3 | 10.6 | 10.0 |
| Crew Management/Protection Services | 3,347 | 4.3 | 14.3 | 12.6 |
| Total Highly-Skilled Labor | 7,475 | 9.5 | 12.5 | 11.3 |
| Customer Service | 9,522 | 12.1 | 7.6 | 4.0 |
| Clerical | 3,253 | 4.1 | 6.9 | 5.5 |
| Office or Dept Manager | 5,154 | 6.6 | 13.6 | 11.8 |
| Health Aid/Nurse | 4,483 | 5.7 | 11.5 | 9.3 |
| Education Aid/Teacher | 4,217 | 5.4 | 7.5 | 3.9 |
| Total Service Sector | 26,629 | 33.9 | 9.4 | 6.9 |
| Exec Management | 4,018 | 5.1 | 13.2 | 10.0 |
| Accounting/Engineering | 2,100 | 2.7 | 11.8 | 10.0 |
| Doctor/Professor/Attorney | 2,679 | 3.4 | 17.2 | 17.1 |
| Writer/Artist/Musician | 836 | 1.1 | 1.6 | 1.0 |
| Total Professional Sector | 9,633 | 12.3 | 11.0 | 9.5 |
| Homemaker/Student/Unemployed | 12,326 | 15.7 | n/a | n/a |
| Retired/Disabled | 8,722 | 11.1 | n/a | n/a |
| Total Non-Employed | 21,049 | 26.8 | | |
| Total | 78,595 | 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)



Current Skills and Work Experiences

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

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

For example, 2,998 members of the Pool are currently employed as general laborers, construction, cleaners, and similar positions. An additional 2,609 Pool members (employed and currently non-employed) had previous employment experience or training in one of those jobs, for a total of 5,608 individuals. The total does not sum precisely due to rounding error.

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

| | Current Employment* Number | Previous Work/Training* Number | Current plus Previous Work or Training** Number |
|---------------------------------------|----------------------------------|--------------------------------------|---|
| Working with Hands | | | |
| General Labor | 2,998 | 2,609 | 5,608 |
| Farm or Ranch Labor | 1,432 | 510 | 1,942 |
| Manufacturing and Assembly | 2,536 | 3,429 | 5,965 |
| Maintenance | 1,243 | 1,149 | 2,392 |
| Driving (Delivery, Bus, Postal) | 1,630 | 789 | 2,419 |
| Truck Driving/Heavy Equip. Op. | 3,971 | 1,859 | 5,829 |
| Skilled Labor | 2,246 | 2,126 | 4,372 |
| Crew Management | 1,632 | 1,054 | 2,686 |
| Working with People | | | |
| General Customer Service | 9,522 | 10,929 | 20,451 |
| Office Management | 5,154 | 5,473 | 10,627 |
| Governmental Services | 1,715 | 2,831 | 4,547 |
| Executive Management | 4,018 | 1,921 | 5,939 |
| Advanced Social Services | 1,289 | 1,216 | 2,505 |
| Working with Numbers | | | |
| Clerical | 3,253 | 722 | 3,975 |
| Accounting/Finance/Banking | 879 | 623 | 1,502 |
| Researcher/Analyst | 314 | 0 | 314 |
| Working with Technology | | | |
| IT and Other (Non-Med) Tech. Maint. | 1,882 | 936 | 2,818 |
| Software Dev./Comp. Prog. | 906 | 938 | 1,844 |
| Engineer/Designer | 0 | 20 | 20 |
| Providing Health Services | | | |
| Health Aid | 2,409 | 784 | 3,194 |
| Nurse | 2,074 | 885 | 2,959 |
| Advanced Medical Practitioner | 393 | 211 | 604 |
| Providing Educational Services | | | |
| Education Aid | 2,031 | 1,092 | 3,123 |
| Teacher/Trainer | 2,186 | 992 | 3,178 |
| Professor/Lecturer | 998 | 20 | 1,017 |
| Creative Arts | | | |
| Writer/Artist/Musician | 836 | 1,703 | 2,539 |
| Total | 57,547 | 44,821 | 102,367 |

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

** An individual member of the Pool is counted only once within each employment category. If jobs are duplicate, they were removed from the Previous Job Category.

Total numbers or percentages in table might not match those in text due to rounding.

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 9,522 working Pool members currently employed in this category and 10,929 previously employed/trained in this category, for a total of 20,541 individuals.

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

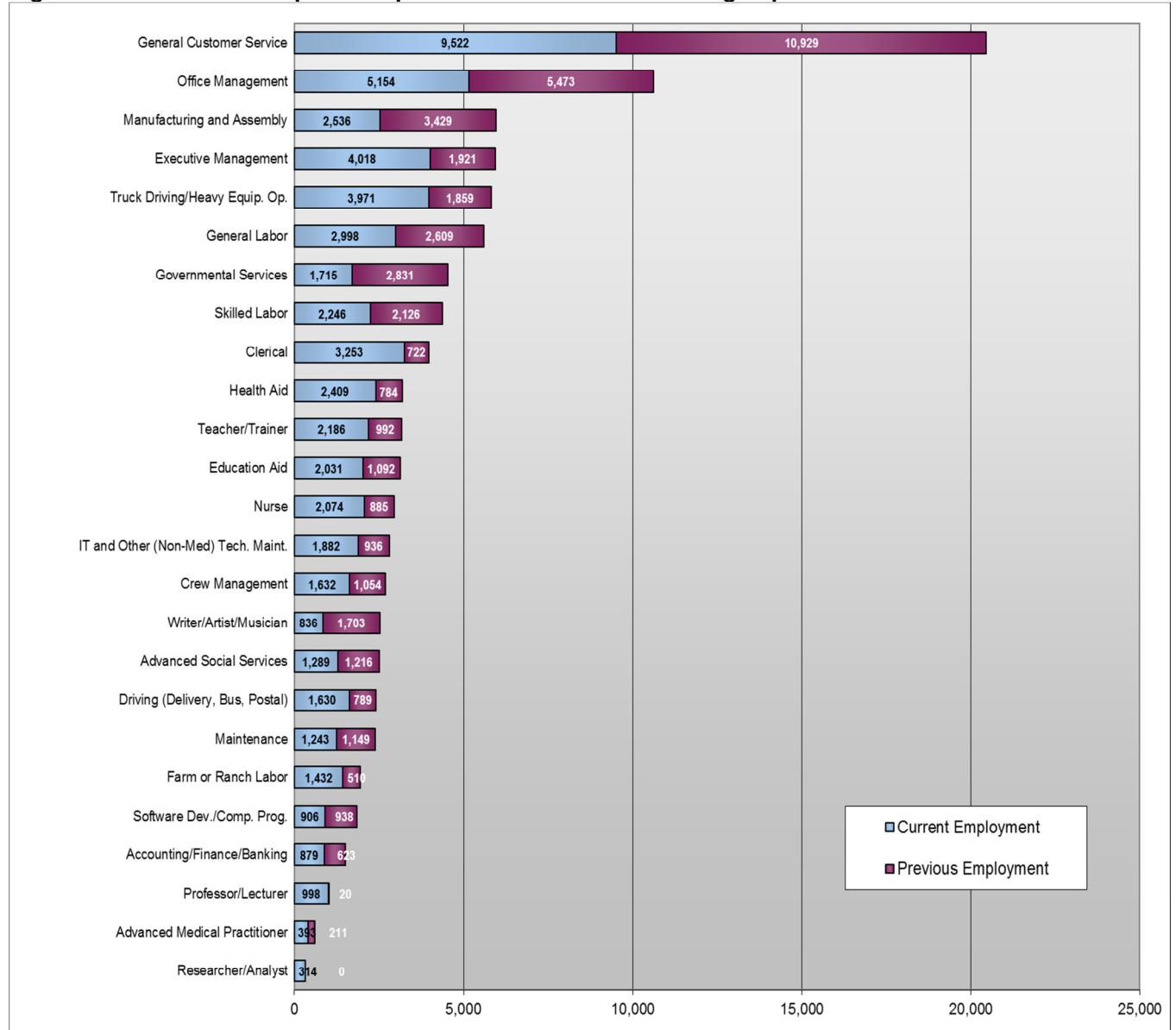


Table 2 on page 7 showed that 21,049 members of the Available Labor Pool are currently non-working. Those with previous work experience were included in the “previous work/training” column in Table 3 on page 8.

Table 4 below shows the work experience of the non-working members of the Pool. The table shows that 20.7% of the current non-workers were previously employed as general customer service workers, 11.3% were office managers, and 10.2% were health aids.

Table 4: Previous Work Experience of Non-Workers

| Non-Employed - Previous Experience | | |
|---|--------|---------|
| | Number | Percent |
| Working with Hands | | |
| General Labor | 1,574 | 7.5 |
| Farm or Ranch Labor | 147 | 0.7 |
| Manufacturing and Assembly | 2,074 | 9.9 |
| Maintenance | 413 | 2.0 |
| Driving (Delivery, Bus, Postal) | 543 | 2.6 |
| Truck Driving/Heavy Equip. Op. | 1,802 | 8.6 |
| Skilled Labor | 660 | 3.1 |
| Crew Management | 0 | 0.0 |
| Working with People | | |
| General Customer Service | 4,358 | 20.7 |
| Office Management | 2,369 | 11.3 |
| Governmental Services | 201 | 1.0 |
| Executive Management | 710 | 3.4 |
| Advanced Social Services | 440 | 2.1 |
| Working with Numbers | | |
| Clerical | 201 | 1.0 |
| Accounting/Finance/Banking | 688 | 3.3 |
| Researcher/Analyst | 0 | 0.0 |
| Working with Technology | | |
| IT and Other (Non-Med) Tech. Maint. | 0 | 0.0 |
| Software Dev./Comp. Prog. | 228 | 1.1 |
| Engineer/Designer | 0 | 0.0 |
| Providing Health Services | | |
| Health Aid | 2,141 | 10.2 |
| Nurse | 517 | 2.5 |
| Advanced Medical Practitioner | 0 | 0.0 |
| Providing Educational Services | | |
| Education Aid | 971 | 4.6 |
| Teacher/Trainer | 808 | 3.8 |
| Professor/Lecturer | 0 | 0.0 |
| Creative Arts | | |
| Writer/Artist/Musician | 204 | 1.0 |
| Total | 21,049 | 100 |

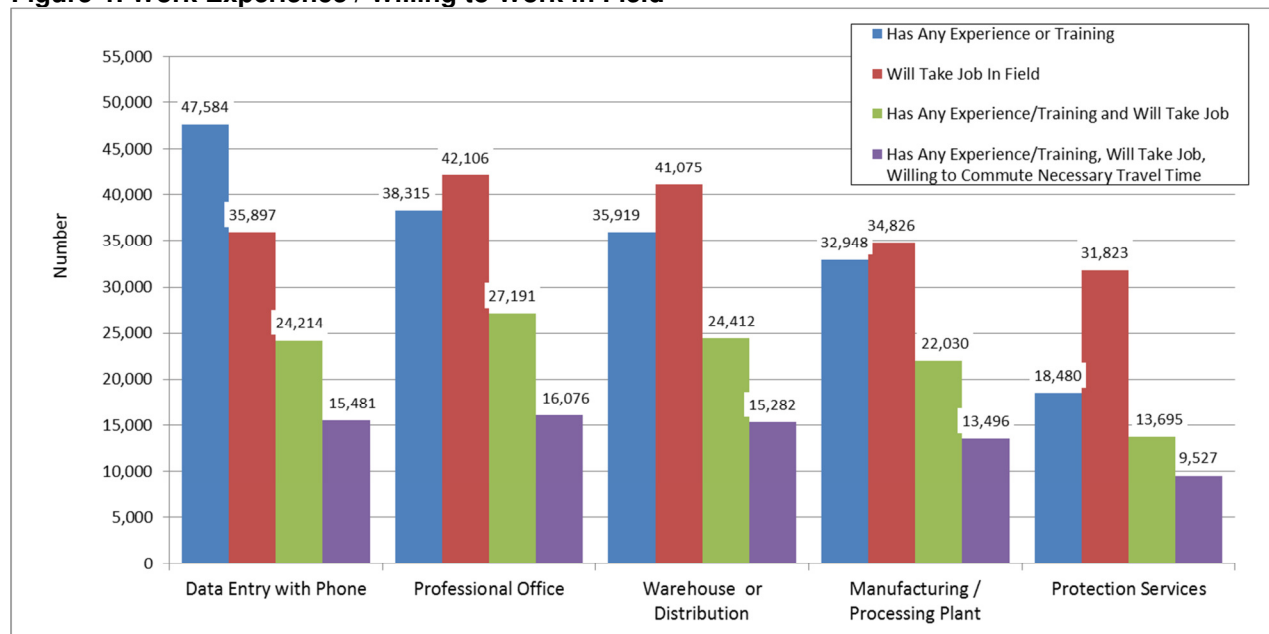
In addition to collecting data regarding the current employment status and previous work or training experience through a series of “open-ended” survey questions (the results of which are shown in the previous table and figure), respondents were asked about the five specific employment areas listed in Figure 4. Respondents were first asked if they had 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.²

The figure shows that an estimated 47,584 Pool members report having training and/or experience in data entry with telephone operation, while fewer (35,897) individuals would consider employment in that field. An estimated 38,315 members of the Pool have training and/or experience in a professional office environment, while more (42,106 individuals) would take a job in that field.

An estimated 35,919 members of the Pool suggest that they have training or experience working in a distribution center or warehouse while 41,075 would consider a job in that field. An estimated 32,948 have experience working in a manufacturing or processing plant while 34,826 would take a job in that field. Finally, 18,480 have training or experience in protection or security services, while 31,823 would consider employment in that field.

The third column shows the estimated number that have any experience or training in a field **and** are willing to work in that field again. The fourth column show the estimated numbers that have any training/experience **and** are willing to take a job in that field **and** are within the necessary commute time for a new or different job. (See page 20 for a definition of “within the necessary commute time.”)

Figure 4: Work Experience / Willing to Work in Field



² Figure 4 differs substantially from Table 3 and Figure 3 (pages 8 and 9). For example, the “has any experience or training” column above represents an extrapolated total of **all** Pool members answering “yes” to a question asking “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, non-working in the second) about specific jobs – one current job and/or one previous job.

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 4a and 4b show the responses to those questions. The figures show that about half (48%) of those indicating distribution/warehousing experience moved materials or loaded trucks. Additionally, just over half (55%) of those indicating experience in manufacturing/processing had jobs in procession, fabrication or assembly.

Figure 4a: Work Experience in Distribution Center or Warehouse

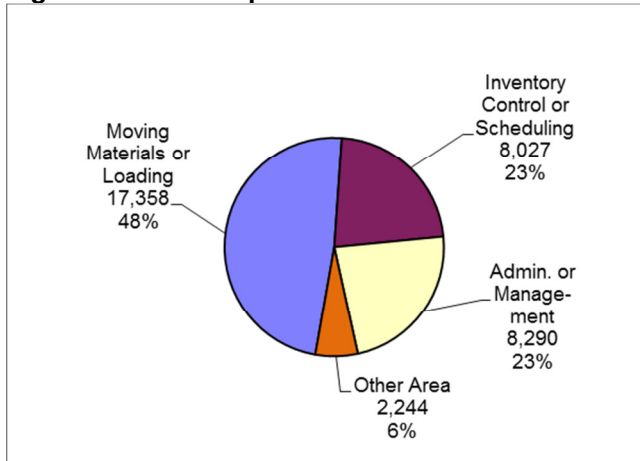
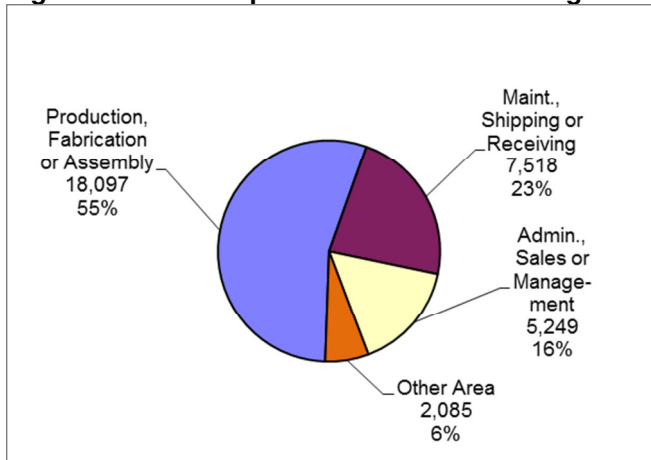


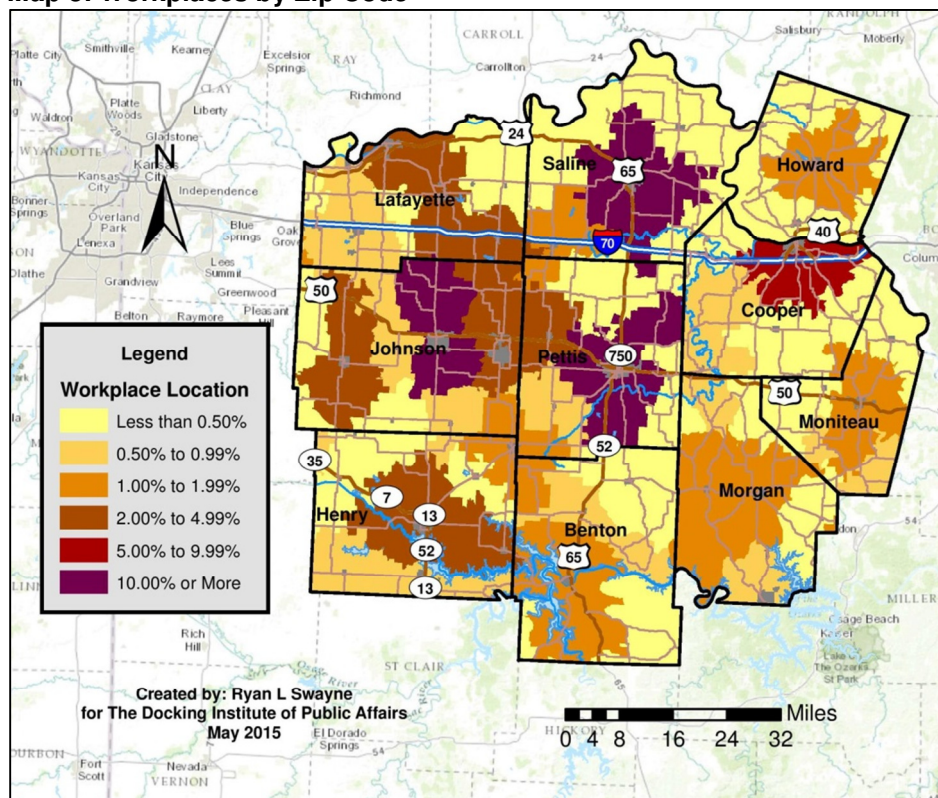
Figure 4b: Work Experience in Manufacturing or Processing Plant



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 *within the basin* by Zip Code area. The map shows:

- Ten percent or more of the working members of the Available Labor Pool work in Zip Code areas in Johnson, Pettis, and Saline counties. (See purple areas in the map.)
- Workplaces located in Zip Code areas in Henry, Johnson, Lafayette, and Pettis counties employ 2% to 4.99% of the basin's working Pool members. (See brown areas in the map.)
- Workplaces located Benton, Henry, Howard, Johnson, Moniteau, Morgan, Pettis, and Saline counties employ 1% to 1.99% of the basin's working Pool members. (See orange areas in the map.)
- Finally, less than 1% of the employers are located in Zip Code areas across all 10 counties. (See peach and yellow areas in the map.)

Map 3: Workplaces by Zip Code



Educational Experience

Table 1 (see page 6) shows that 67.1% of the Available Labor Pool reports attending some college (with at least 47.2% completing an associate's degree and at least 33.8% completing a bachelor's degree).

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

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.

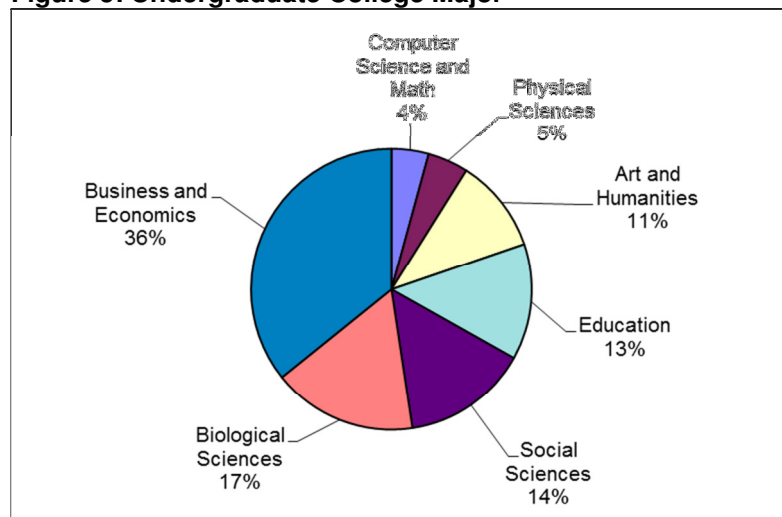
Education: Elementary and Secondary Teaching.

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

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

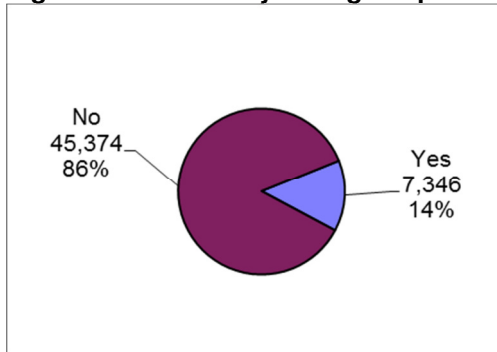
Figure 5 shows that the largest groups of Available Labor Pool members indicate a major in business and economics (36%), biological sciences (17%), social sciences (14%), education (13), and arts and humanities (11%). Physical sciences and computer science and math have a combined total of 9%.

Figure 5: Undergraduate College Major



All respondents that had completed “at least some college” were asked: “Are you attending technical school now or have you received a technical degree?” Figure 6 shows that 14% of the respondents hold a technical degree or are working on one at the present time.

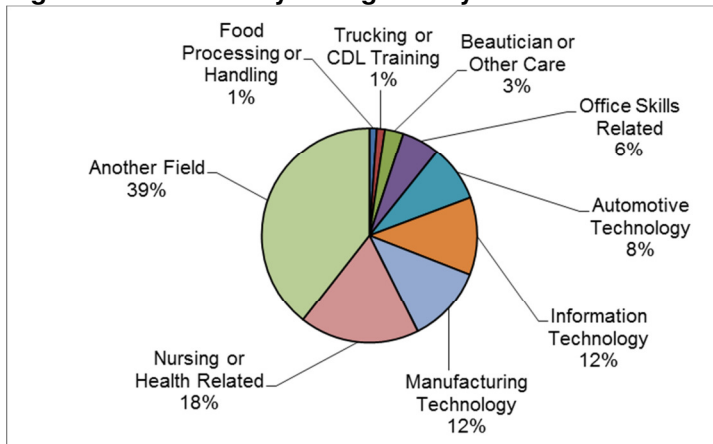
Figure 6: Community College Experience



Respondents answering “yes” to the above question were asked for their area of study. Answer options were grouped into one of the options shown in Figure 6a. The figure shows that 18% report studying nursing or another health-related field. Twelve percent report studying manufacturing technology and another 12% report studying information technology.

Less than 10% report studying each of these areas: automotive technology, office skills, beautician skills or other personal care, trucking or commercial driver’s license (CDL) training, and food processing and handling.

Figure 6a: Community College Study Area



Considerations for Employment

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

This does not seem to be the case for the Pettis County Labor Basin. Figure 7 shows that 61,187 (78%) members of the Available Labor Pool are willing to accept positions outside of their primary fields of employment.

Figure 7: Considerations for Employment

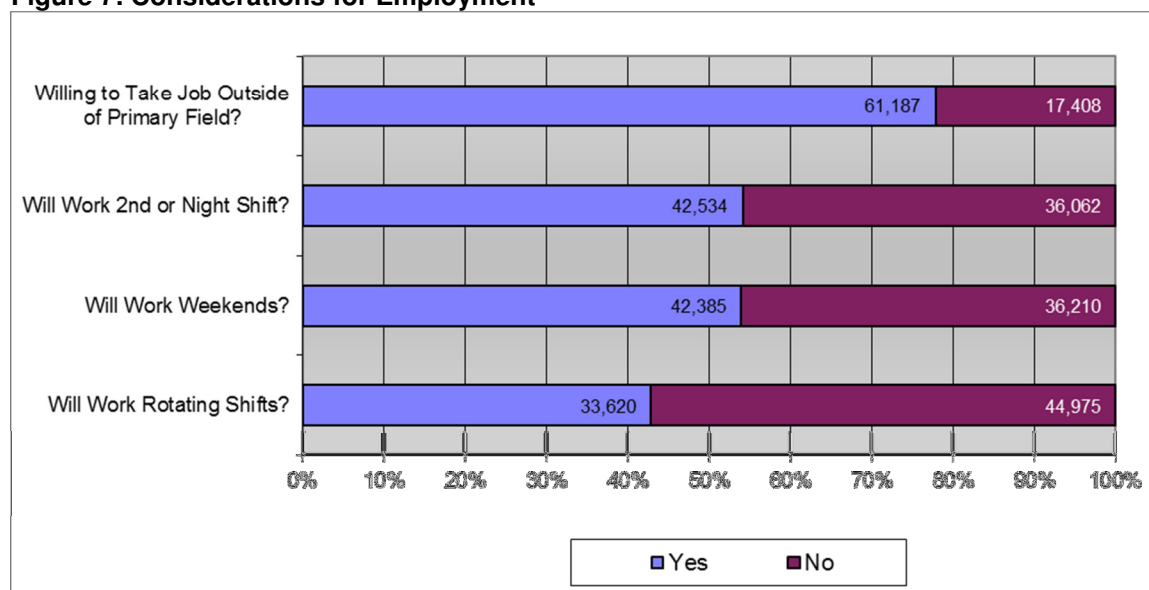
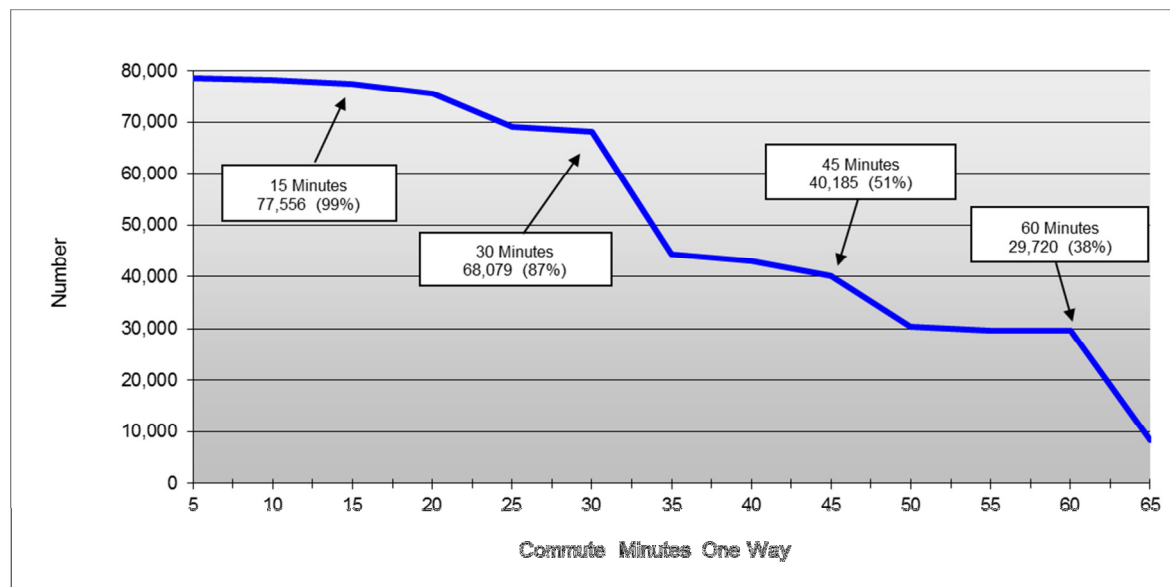


Figure 7 also shows responses to three questions regarding work shifts. Respondents were asked if they would be willing to work a second or night shift, weekends, or rotating shifts for a new job.

The figure shows that 54% of the Available Labor Pool is willing to work a second shift or night shift for a new job and 54% is willing to work weekends for a new job. More than two-fifths (42.7%) is 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 8 suggest that the Available Labor Pool in the Pettis County Labor Basin is open to commuting. Over half (51%) of the members of the Available Labor Pool will commute up to 45 minutes, one-way, for an employment opportunity, while 87% will commute up to 30 minutes for employment. All (99%) will travel up to 15 minutes for employment.

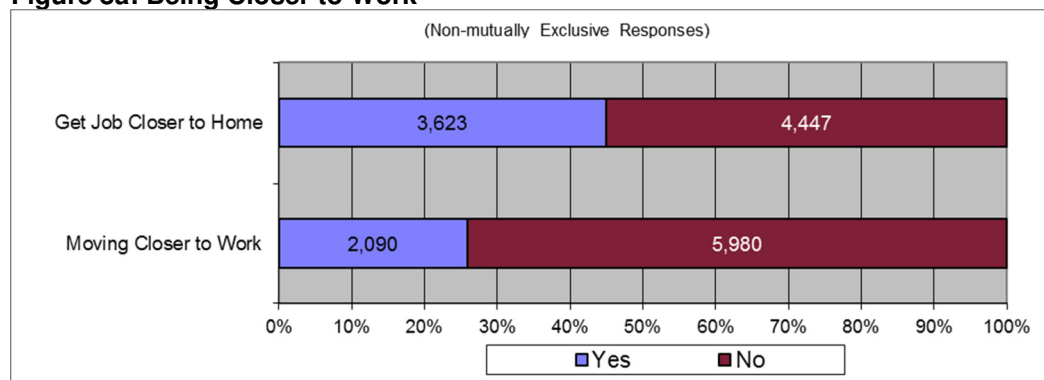
Figure 8: Available Labor by Commute Minutes



Working members of the Pool indicating a willingness to commute further than 60 minutes, one-way, for a job, were asked two questions: “Have you considered moving to be closer to your job?” and “Given the price of gas, have you considered getting a job closer to your home?”

Figure 8a shows that about 45% of this subset of the Pool would consider getting a new job closer to their places of residence, while about 26% would consider moving closer to their places of work.

Figure 8a: Being Closer to Work

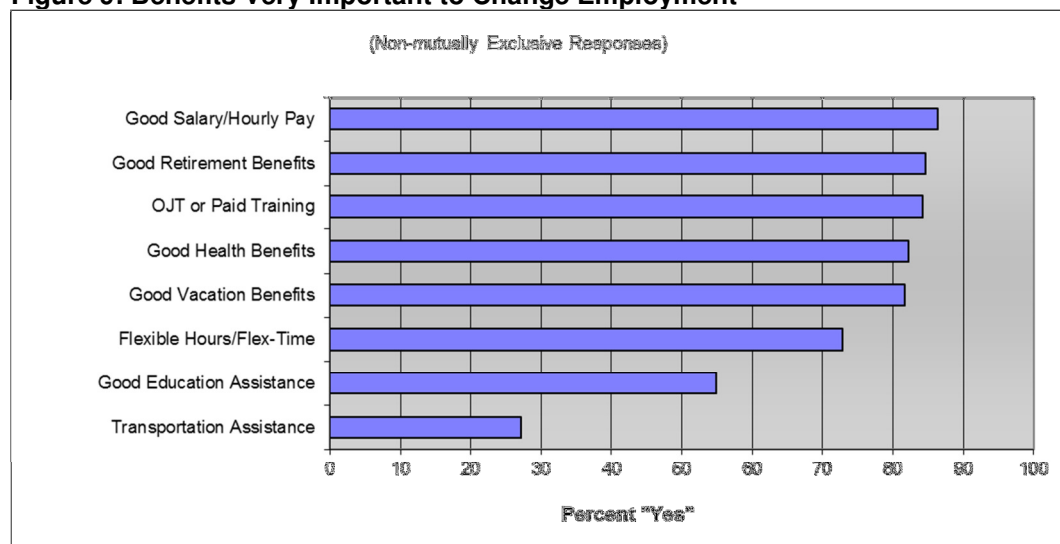


Available Labor Pool members were asked about various benefits that might be important when considering whether to take a new or different job. Respondents were asked if each benefit would be a “very important” consideration for taking a new job, with answer options included “yes” and “no.”

Figure 9 shows that the five most important benefits are, in order, good salary or hourly pay, good retirement benefits, on-the-job (OJT), good health benefits, and good vacation benefits. All of these benefits are considered “very important” by 80% or more of the Available Labor Pool each. Flexible hours or flex-time follows at about 73%. Transportation assistance follows at about 27%.

The least desired benefits are good educational assistance and transportation assistance, considered “very important” by 55% and 27% of Available Labor Pool members, respectively.

Figure 9: Benefits Very Important to Change Employment



The left column in Table 5 shows the percentages of all Pool members that said the benefit is a *very important* consideration for taking a new or different job, 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 and Good Retirement Benefits stand out with 16.9% and 16.2% differences, respectively.

Table 5: Desired Benefits and Current Benefits Offered

| | Benefit Important to Change Jobs Percent | Benefit Currently Offered* Percent |
|---------------------------|--|--|
| Good Salary/Hourly Pay | 86.4 | 79.7 |
| Good Retirement Benefits | 84.6 | 68.4 |
| OJT or Paid Training | 84.3 | 77.0 |
| Good Health Benefits | 82.2 | 76.7 |
| Good Vacation Benefits | 81.7 | 75.9 |
| Flexible Hours/Flex-Time | 72.9 | 56.0 |
| Good Education Assistance | 54.9 | 48.6 |
| Transportation Assistance | 27.2 | 14.2 |

* This column represents working ALP members only.

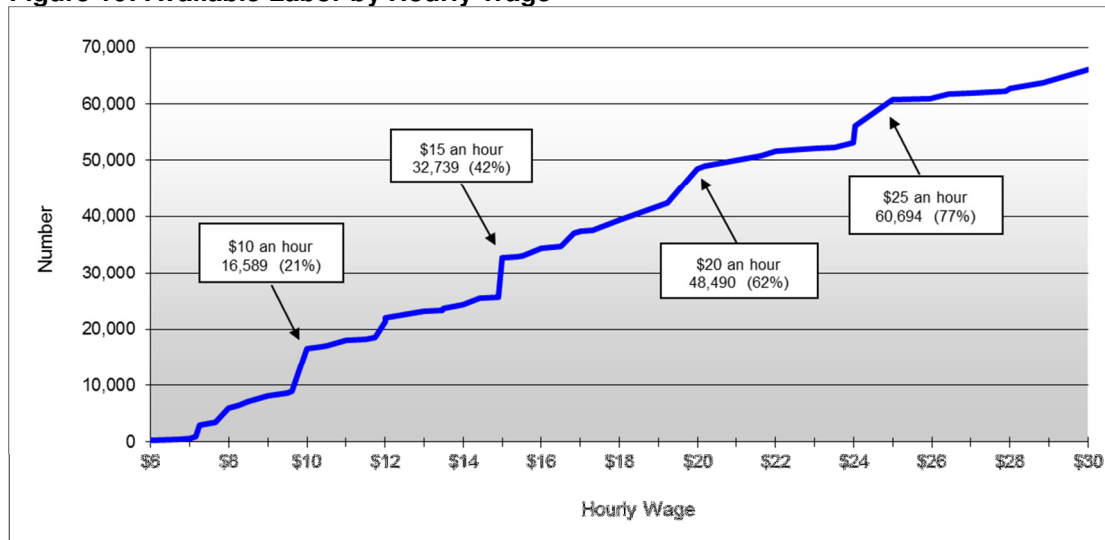
Wage Demands of Available Labor Pool

Wage demands are another important consideration for employers and economic developers. Figure 10 shows desired wages for members of the Available Labor Pool. It is estimated that 60,694 people (or 77% of the available labor) are interested in a new job at \$25 an hour.³

An estimated 48,490 (62%) members of the Pool are interested in new employment opportunities at \$20 an hour, while 32,739 (42%) are interested at \$15 an hour.

Finally, an estimated 16,589 people (21%) are interested in a new job at \$10 an hour.

Figure 10: Available Labor by Hourly Wage



³ 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 reports addresses two subsets of the Available Labor Pool. Each provides a different look at the Available Labor Pool, and they are not mutually exclusive. The two subsets are: those residing Within the Necessary Commute Time and the Underemployed Available Labor Pool Workers.

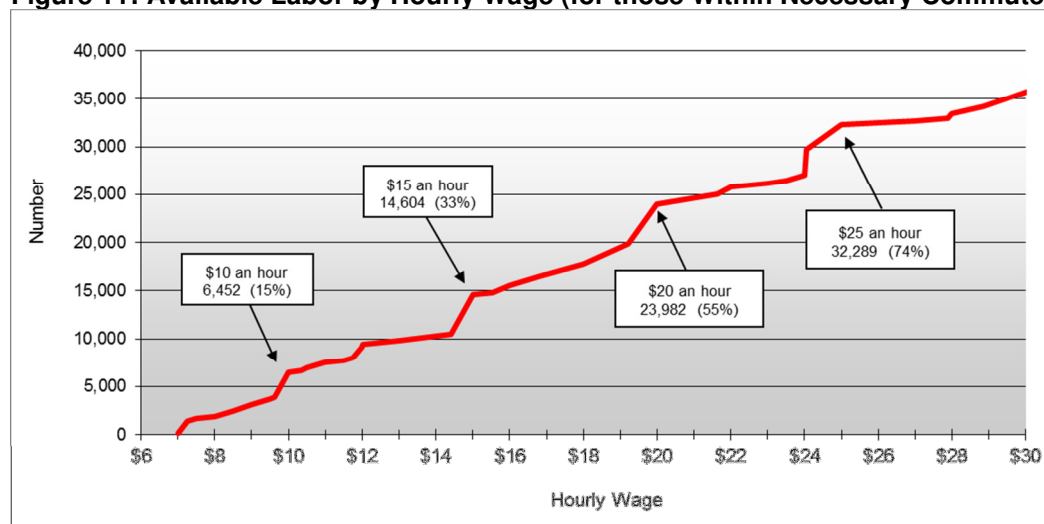
Subset 1: Within Necessary Commute Time

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 the respondent that is equal to or greater than the commute time necessary for the 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 that is willing to travel for 30 minutes, one-way, for a new or different job opportunity and that 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. Data from these respondents are included in this section of the report.

- ***Wage Demands (of those Within Necessary Commute Time)***

Figure 11 shows the wage demands for the Available Labor Pool members that are “within the necessary commute time.” An estimated 32,289 people (or 74% of this subset) are interested in a new job at \$25 an hour. An estimated 23,982 (55%) are interested in new employment opportunity at \$20 an hour, and 14,604 (33%) are interested at \$15 an hour. Finally, an estimated 6,452 people (15%) are interested in a new job at \$10.

Figure 11: Available Labor by Hourly Wage (for those Within Necessary Commute Time)



The previous figure suggests the obvious: that the higher the wage, the larger the pool of available labor. As noted, 14,604 members of the “within the necessary commute time” subset of the labor pool are available for a new or different job at \$15 an hour. At \$14 an hour there are 10,183 members of the pool available. As such, an increase of \$1 per hour from \$14 to \$15 represents an increase of 4,421 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, 9,836 members of this subset are interested in a job at \$13 an hour. At \$14 an hour there are an estimated 10,183 individuals available. So, while there is certainly an increase in the number of available workers at this higher wage rate, the increase is only 347 individuals – a relatively small increase given the overall size of this subset of the Available Labor Pool.

Additional wage plateaus exist between \$12 and \$13 an hour (671 individuals), \$17 and \$18 (617), between \$20 and \$21 (527), and between \$22 and \$23 (468).

• ***Wage Demands by Occupational Sector (for those within Necessary Commute Time)***

Table 6 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 19% of the general laborers will take a new or different job at a wage of at \$12 an hour, while 25% is available for new employment at a wage of \$15 an hour. Of the skilled laborers, 20% is available for new employment at a wage of \$12 an hour, while 24% is available at a wage of \$15 an hour.

Regarding service workers, 36% is available at a wage of \$12 an hour, while 40% is available at a wage of \$15 an hour. Of the professional workers, none are available at a wage of \$12 an hour, while only 4% is available at a wage of \$15 an hour.

Table 6: Cumulative Wage Demands for Occupational Sectors

| | General Labor | | High Skill Labor | | Service Sector | | Professional | |
|--------|--------------------------|------------|--------------------------|------------|--------------------------|------------|--------------------------|------------|
| | (N= 46) (+/- 14.5% MoE) | | (N= 26) (+/- 19.1% MoE) | | (N= 74) (+/- 11.4% MoE) | | (N= 28) (+/- 18.5% MoE) | |
| | Number | Cumulative | Number | Cumulative | Number | Cumulative | Number | Cumulative |
| \$30 < | 9,112 | 100% | 5,235 | 100% | 14,665 | 100% | 5,576 | 100% |
| \$30 | 7,713 | 85% | 4,045 | 77% | 10,696 | 73% | 3,969 | 71% |
| \$27 | 7,113 | 78% | 3,847 | 73% | 10,101 | 69% | 3,771 | 68% |
| \$24 | 6,514 | 71% | 2,657 | 51% | 9,307 | 63% | 2,183 | 39% |
| \$21 | 5,915 | 65% | 2,459 | 47% | 8,890 | 61% | 1,786 | 32% |
| \$18 | 4,316 | 47% | 1,864 | 36% | 7,898 | 54% | 397 | 7% |
| \$15 | 2,318 | 25% | 1,269 | 24% | 5,914 | 40% | 198 | 4% |
| \$12 | 1,718 | 19% | 1,071 | 20% | 5,279 | 36% | 0 | 0% |
| \$9 | 1,119 | 12% | 0 | 0% | 2,302 | 16% | 0 | 0% |
| \$6 | 799 | 9% | 0 | 0% | 992 | 7% | 0 | 0% |

Table 6 (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 7 (below) includes non-working Pool members, working service sector Pool members, and working general labor Pool members that are within the necessary commute time.

Additionally, in Table 7, general laborers and service sector workers are classified in both sectors shown *if* they are willing to change fields of employment (see Figure 7, page 16). It is assumed that non-working Pool members will take jobs (all things being equal) in either general labor or service sectors.

In other words, Table 7 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 7 *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.⁴

Table 7: Cumulative Wage Demands Allowing Mobility between General Labor and Service Sector

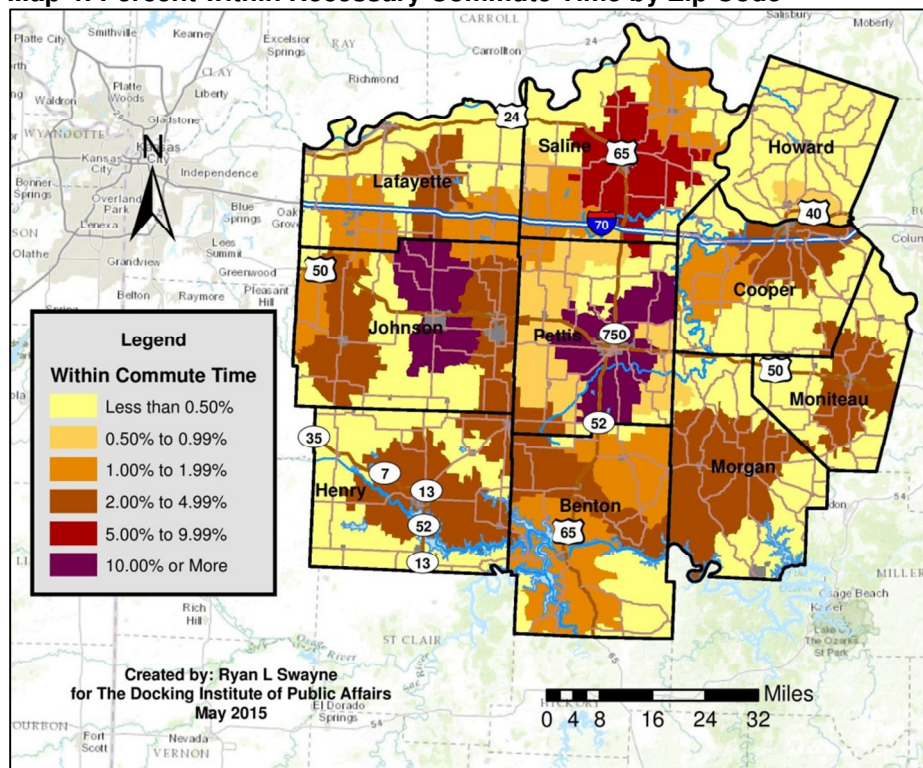
| | Mobile General Labor | | Mobile Service Sector | |
|--------|--------------------------|------------|--------------------------|------------|
| | (N= 139) (+/- 8.3% MoE) | | (N= 147) (+/- 8.1% MoE) | |
| | Number | Cumulative | Number | Cumulative |
| \$30 < | 27,578 | 100% | 29,136 | 100% |
| \$30 | 21,723 | 79% | 23,361 | 80% |
| \$27 | 20,669 | 75% | 22,130 | 76% |
| \$24 | 17,411 | 63% | 18,438 | 63% |
| \$21 | 16,220 | 59% | 17,634 | 61% |
| \$18 | 12,350 | 45% | 14,359 | 49% |
| \$15 | 8,068 | 29% | 10,722 | 37% |
| \$12 | 6,504 | 24% | 7,348 | 25% |
| \$9 | 2,890 | 10% | 3,314 | 11% |
| \$6 | 826 | 3% | 1,032 | 4% |

⁴ High skill 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 high skill 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:

- Ten percent or more of this subset is located in Zip Code areas within Johnson, and Pettis counties. (See purple areas in the map.)
- Between 5% and 9.99% of this subset is located in Zip Code areas in Pettis and Saline counties. (See red areas on the map.)
- Zip Code areas in Benton, Cooper, Henry, Johnson, Lafayette, Moniteau, Morgan, and Pettis counties contain 2% to 4.99% of this subset. (See brown areas in the map.)
- Zip Code areas in Benton, Cooper, Johnson, Lafayette, Pettis and Saline counties contain 1% to 1.99% of this subset. (See orange areas on the map.)
- Finally, less than 1% of this subset is located in Zip Code areas in all 10 counties of the labor basin. (See peach and yellow areas on the map.)

Map 4: Percent within Necessary Commute Time by Zip Code



Subset 2: Underemployed Available Labor Pool Workers

Underemployment — individuals possessing skills and/or training levels that exceed the responsibilities of their current job — is a significant issue in many communities. To assess underemployment in the Pettis County Labor Basin, *employed members of the Available Labor Pool* were presented with a scenario describing underemployment.⁵ 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 can work.

Of the 57,547 *employed members* of the Available Labor Pool (shown in Figure 12), about one third answered “yes” to one or more of the questions presented above (see Figure 13). These Pool members are considered “underemployed.”

Figure 13 shows that the underemployed workers represent 31% (or 17,993 individuals) of the employed members of the Pool.

Figure 12: Employed and Unemployed Members of the Available Labor Pool

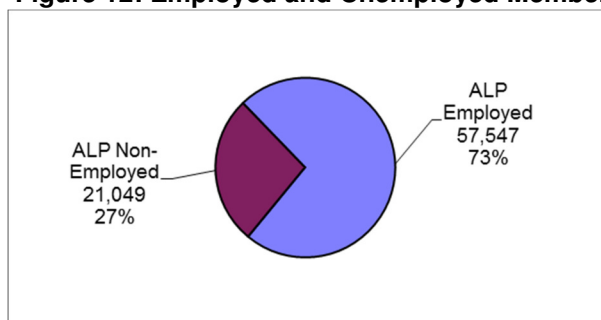
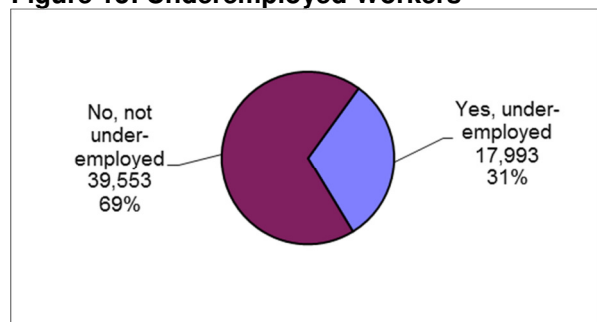


Figure 13: Underemployed Workers



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

Twenty-eight percent of this subset possesses education levels exceeding those needed for their current jobs. About 23% earned more money at a past but similar job, and about 21% possesses skills not used currently on the job. About 14% cannot work enough hours as desired.

Figure 14: Reasons for Underemployment

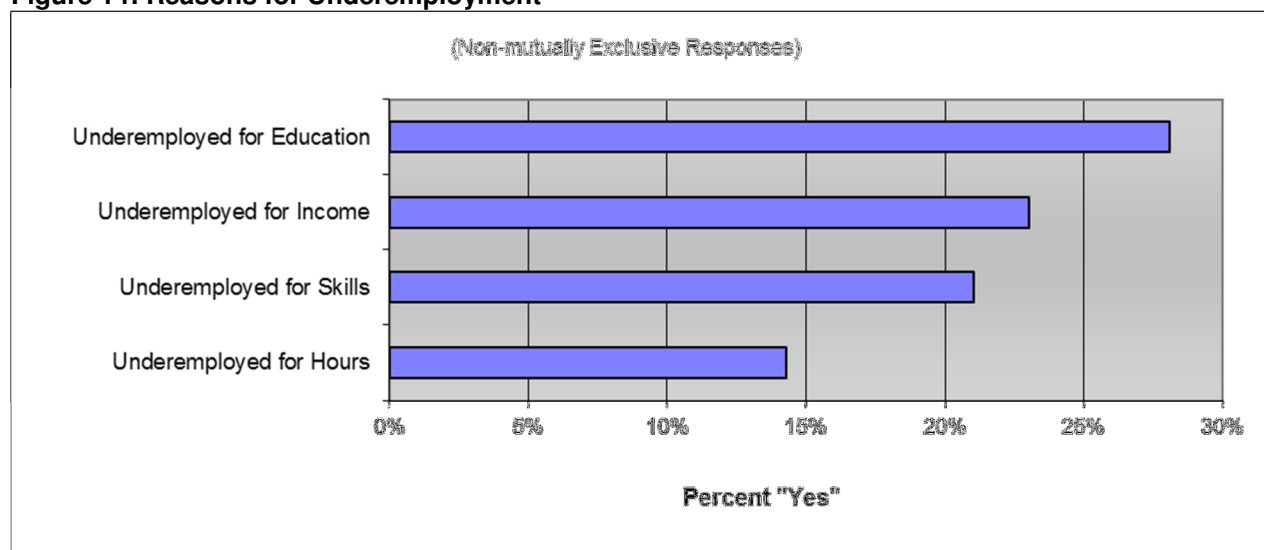


Table 8 (below) and Figure 15 (next page) show some characteristics of the underemployed members of the Available Labor Pool.

Table 8 shows that the education levels of the underemployed workers differ somewhat from the overall Available Labor Pool. Those with higher education levels are more likely to consider themselves as underemployed than those with lower education levels. For examples, the table below shows that 37% of the underemployed workers have at least bachelor's degrees, while the percentage for the Available Labor Pool as a whole is 33.8% - see Table 1, page 6.

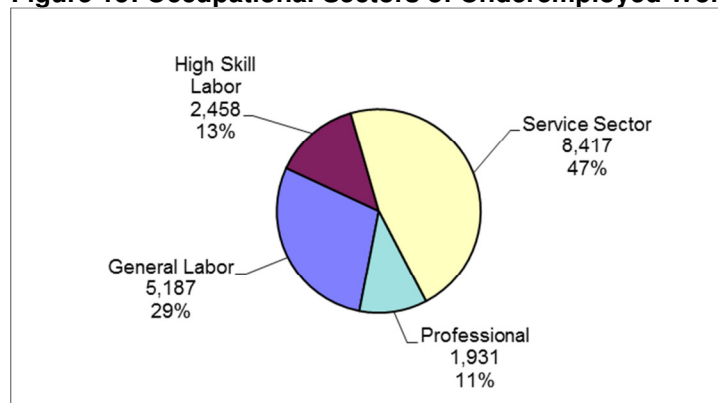
Table 8: Highest Level of Education Achieved Among Underemployed

| | Number | Percent | Cumulative Percent |
|--------------------------|--------|---------|-----------------------|
| Doctoral Degree | 418 | 2.3 | 2.3 |
| Masters Degree | 2,248 | 12.5 | 14.8 |
| Bachelors Degree | 3,990 | 22.2 | 37.0 |
| Associates Degree | 2,314 | 12.9 | 49.9 |
| Some College | 3,453 | 19.2 | 69.0 |
| High School Diploma Only | 4,704 | 26.1 | 95.2 |
| Less HS Diploma | 865 | 4.8 | 100.0 |
| Total | 17,993 | 100 | |

Figure 15 shows that 29% of the underemployed workers are general laborers and 13% are high skill blue-collar workers. The highest percentage of underemployed workers are employed as service sector workers (47%), while 11% hold professional positions.

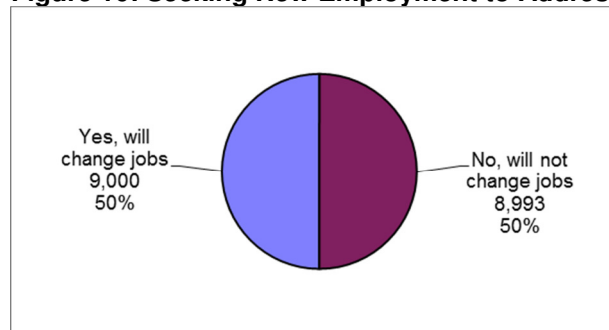
Comparing Figure 15 with Figure 2 (page 7) suggests that fewer professional workers but more general laborers consider themselves underemployed. Figure 2 shows that the subset of working Available Labor Pool members consists of 24% general laborers, 13% high skill laborers, 46% service workers, and 17% professionals.

Figure 15: Occupational Sectors of Underemployed Workers



Underemployed workers were asked if they “are available for a new or different job because they are underemployed?” Figure 16 shows that half (50% or 8,993 individuals) of the underemployed workers are seeking new employment to address underemployment.

Figure 16: Seeking New Employment to Address Underemployment



Comparative Analysis (2009, 2012, and 2015 Reports)

The Docking Institute of Public Affairs conducted similar labor studies in the Pettis Labor Basin and provided reports in 2005, 2009, and 2012. This section of the report compares some of the data collected from all four studies.

Table 9 shows population, Civilian Labor Force, employment, average unemployment rate, and Available Labor Pool data presented in the four reports.

The population of the Pettis County Labor Basin has increased by 7,541 individuals from 2005 to 2015, while the Civilian Labor Force has decreased by 268 workers during that same period.

The number of employed people in the labor basin has decreased over the 10 year period by 1,156. The basin lost about 7,030 jobs from 2009 to 2012 but has regained 5,870 from 2012 to 2015. The unemployment rate increased from 2005 to 2012 (5.5% to 9.2%) and is now about 6.3%.

The table also shows the Available Labor Pools for each year. The Pool increased by 7,689 people from 2005 to 2012. The trend continued with an increase of 4,375 from 2012 to 2015.

Table 9: Key Population and Employment Indicators

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

Figure 17 shows larger proportions of employed members in 2015 Pool, compared to the 2012 Pool. Additionally, the 2009 Pool shows a larger proportion of non-employed Pool members looking for work than the other two pools, but an unusually small proportion interested in a new job.

The figure suggests that the recent recession affected the structures of the 2009 and 2012 Pools. The structure of the 2015 Pool is similar to those of labor studies conducted recently in Kansas and Missouri.

Figure 17: Available Labor Pool Comparison

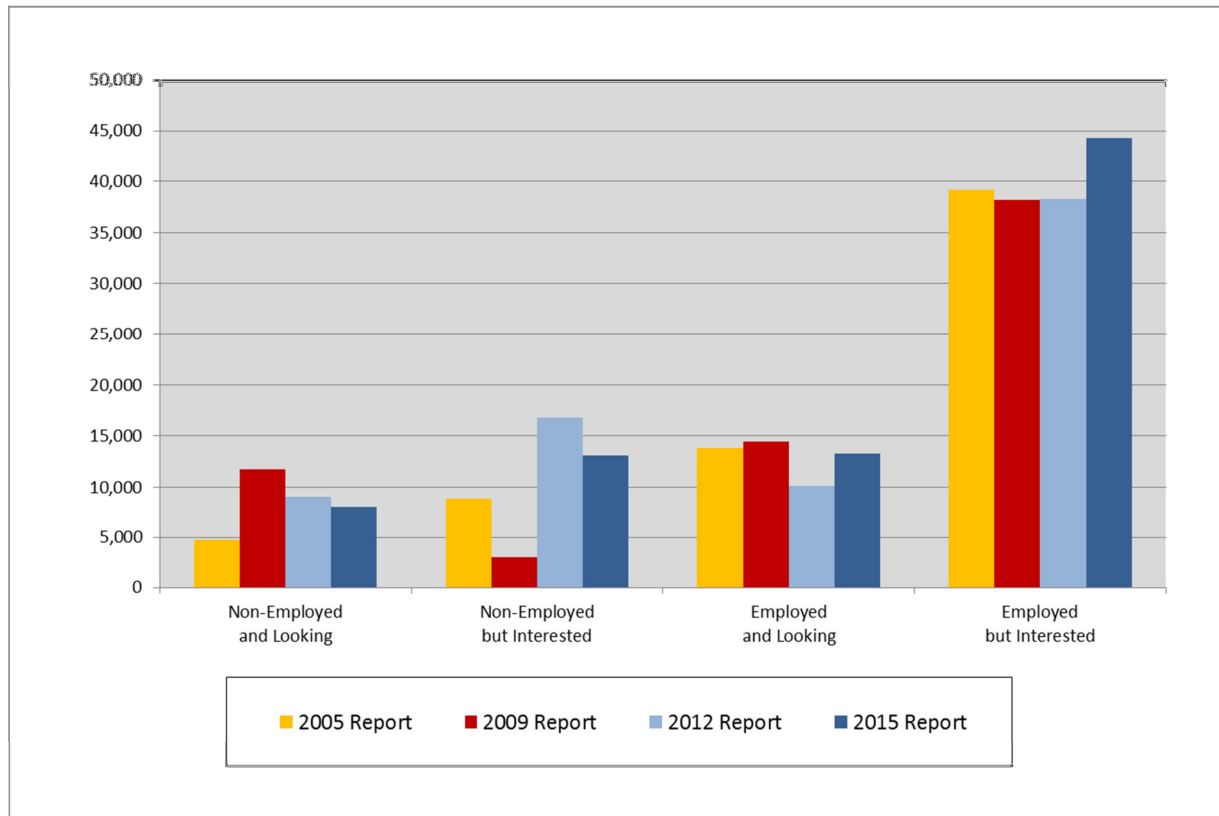


Table 10 (below) compares occupational sectors and education levels from the four studies. The 2012 study stands out with the highest percentage of non-working pool members. The 2005 Pool had the highest percentage of general laborers, while the 2009 Pool had the highest percentage of service sector employees.

The education levels among the four pools vary somewhat. The 2015 Pool has the highest percentage of educated workers, with a third (33.8%) holding at least Bachelor's degrees (see cumulative columns).

Table 10: Available Labor Pool Occupational Sectors and Education Levels Comparison

| | 2005 Report | | 2009 Report | | 2012 Report | | 2015 Report | | |
|--------------------------|---------------|------------|-----------------------|---------------|---------------|-----------------------|---------------|------------|-----------------------|
| Labor Sector | | | | | | | | | |
| | 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 | |
| High Skill Labor | 4,403 | 6.6 | 3,990 | 5.9 | 5,245 | 7.1 | 7,475 | 9.5 | |
| Service Sector | 18,824 | 28.3 | 23,164 | 34.4 | 21,042 | 28.4 | 26,629 | 33.9 | |
| Professional | 13,535 | 20.3 | 12,371 | 18.4 | 9,407 | 12.7 | 9,633 | 12.3 | |
| Non-Working | 13,568 | 20.4 | 14,287 | 21.2 | 25,832 | 34.8 | 21,049 | 26.8 | |
| Total | 66,531 | 100 | 67,336 | 100 | 74,220 | 100 | 78,595 | 100 | |
| Highest Education | | | | | | | | | |
| | Number | Percent | Cumulative Percent | Number | Percent | Cumulative Percent | Number | Percent | Cumulative Percent |
| Doctoral Degree | 588 | 0.9 | 0.6 | 1,587 | 2.4 | 2.0 | 2,417 | 3.3 | 3.3 |
| Masters Degree | 5,195 | 7.9 | 9.6 | 6,615 | 9.8 | 11.4 | 8,362 | 11.3 | 14.5 |
| Bachelors Degree | 10,444 | 15.7 | 25.1 | 12,874 | 19.1 | 28.7 | 8,803 | 11.9 | 26.4 |
| Associates Degree | 5,612 | 8.4 | 34.2 | 7,082 | 10.5 | 27.9 | 10,630 | 14.3 | 40.7 |
| Some College | 20,764 | 31.2 | 63.2 | 17,862 | 26.5 | 68.6 | 16,712 | 22.5 | 63.2 |
| High School Diploma | 19,045 | 28.6 | 94.6 | 17,387 | 25.8 | 95.3 | 22,451 | 30.2 | 93.5 |
| Less HS Diploma | 4,883 | 7.3 | 100 | 3,929 | 5.8 | 100 | 4,845 | 6.5 | 100 |
| Total | 66,531 | 100 | | 67,336 | 100 | | 74,220 | 100 | |

Table 11 (below) 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 77.9% (2015) to 87.7% (2005).

Table 11: Willing to Work Outside of Field and Work Shift Comparison

| | 2005 Report | | 2009 Report | | 2012 Report | | 2015 Report | |
|---|-------------|---------|-------------|---------|-------------|---------|-------------|---------|
| | 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 |
| Will Work 2nd or Night Shift? | n/a | n/a | 37,910 | 56.3 | 43,048 | 58.0 | 42,534 | 54.1 |
| Will Work Weekends? | n/a | n/a | 38,449 | 57.1 | 44,680 | 60.2 | 42,385 | 53.9 |
| Will Work Rotating Shifts? | n/a | n/a | 29,897 | 44.4 | 37,852 | 51.0 | 33,620 | 42.8 |

Figure 18 shows a comparison of “minutes willing to commute” for the four studies.

The patterns are similar, while the “drop-off” between 30 minutes and 35 minutes seems the most dramatic in the 2012 study.

Figure 18: Available Labor by Commute Minutes Comparison

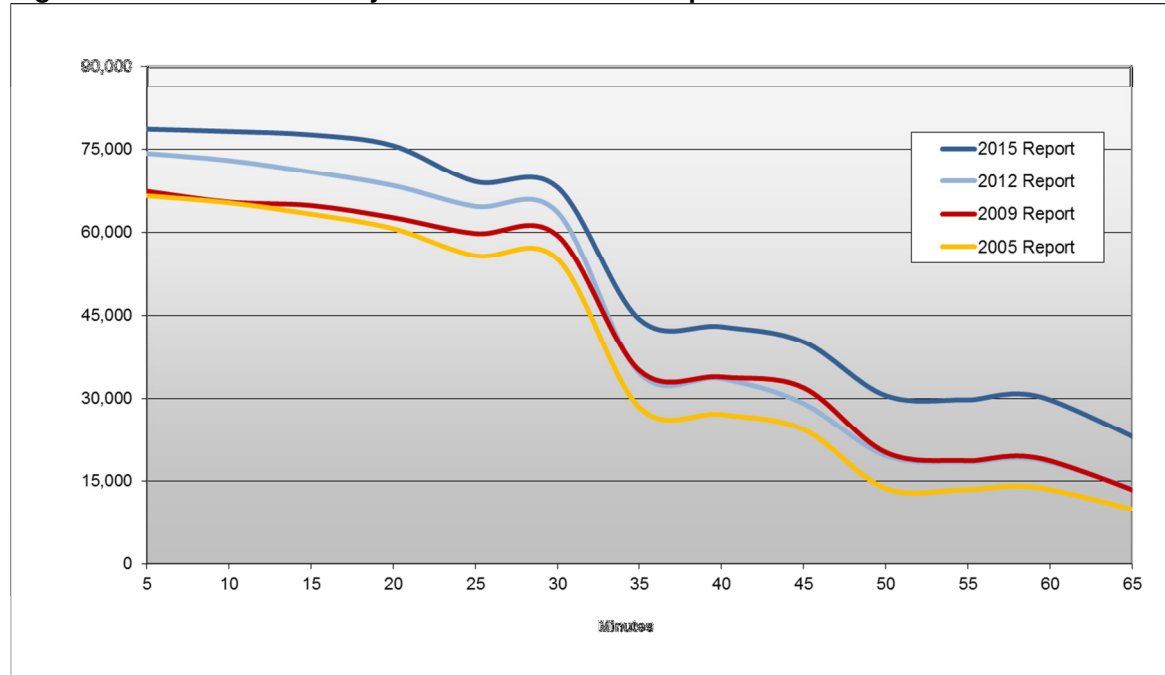


Table 12 shows desired benefits to take a new or a different job for each labor study, ranked in order by 2015 data. The table shows that “good salary/hourly pay” is the most important benefit in the 2009 and 2015 studies, whereas, “good health benefits” were most important in 2005 and 2012.

The items of greatest change between 2012 and 2015 is “good vacation benefits,” with 70.8% indicating this was a “very important” benefit in 2012 but 81.7% considering it “very important” in 2015. Alternatively, “good health benefits” and “transportation assistance” decreased in importance the most from 2012 to 2015.

Table 12: Important Benefits to Change Employment Comparison

| | 2005 Report | 2009 Report | 2012 Report | 2015 Report | |
|--------------------------------|---------------------------------|-------------|-------------|-------------|-----------------------|
| <i>(Ranked by 2015 Report)</i> | | | | | |
| | <i>Percent Responding "Yes"</i> | | | | <i>Change '15-'12</i> |
| Good Salary/Hourly Pay | 79.1 | 89.9 | 79.7 | 86.4 | 6.7 |
| Good Retirement Benefits | 86.0 | 80.1 | 82.3 | 84.6 | 2.3 |
| OJT or Paid Training | 87.4 | 75.7 | 81.7 | 84.3 | 2.6 |
| Good Health Benefits | 88.6 | 74.7 | 84.2 | 82.2 | -2.0 |
| Good Vacation Benefits | 78.0 | 75.3 | 70.8 | 81.7 | 10.9 |
| Flexible Hours/Flex-Time | 71.0 | 69.7 | 66.8 | 72.9 | 6.1 |
| Good Education Assistance | 68.7 | 52.5 | 54.7 | 54.9 | 0.2 |
| Transportation Assistance | n/a | 26.2 | 33.4 | 27.2 | -6.2 |

Figure 19 shows a comparison of the desired wages of the four study groups. The desired wage line shows larger proportions of the 2005, 2009, and 2012 Pools are available for work in the \$10 to \$20 an hour or so range when compared to the 2015 Pool.

Figure 19: Available Labor Pool by Hourly Wage Comparison

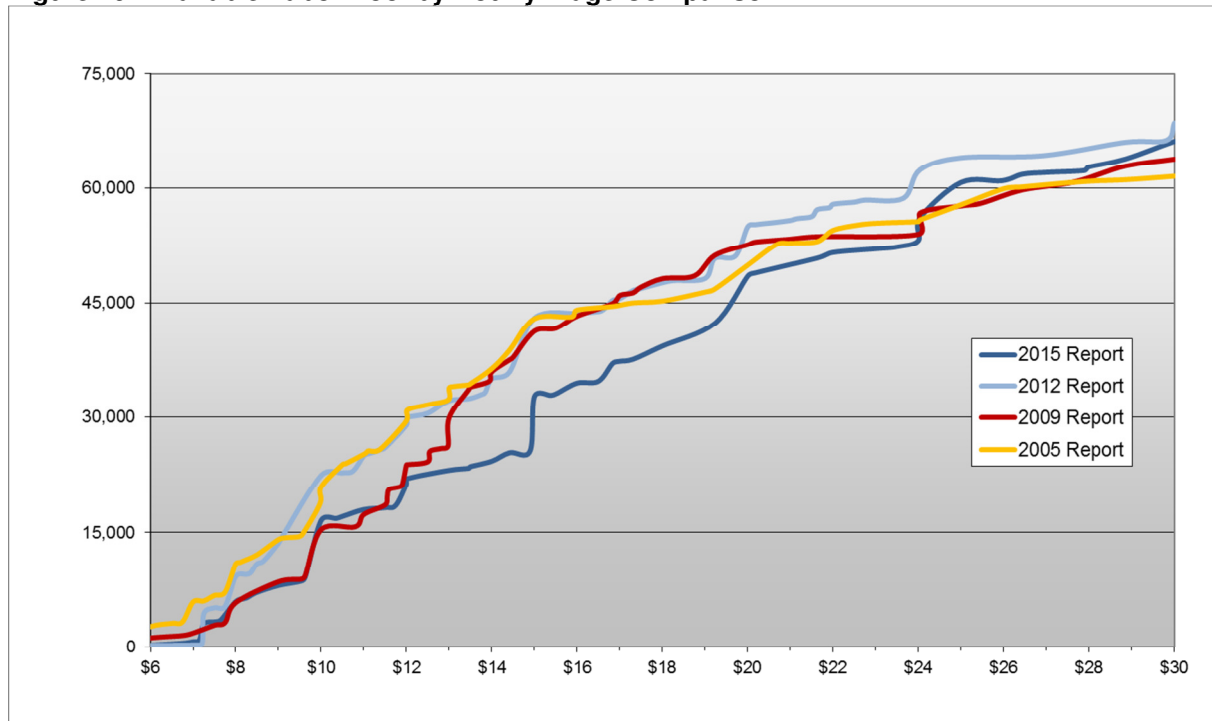


Table 13 (below) shows a comparison of the underemployed members of the Available Labor Pools for the four studies.

The percentage of underemployed workers in 2005 (53%) was the highest among the Pools, while the percentage in 2012 (25.9%) was lowest. However, the 2005 pool had the largest percentage of employed members of the Pool (80%) and 2012 had the lowest (65.2%).

The percentage of underemployed workers in general labor occupations is highest in 2005 (29.3%) and lowest in 2009 (23.1%). Alternatively, the percentage of underemployed professional workers is lowest in 2012 (9%) and highest is 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 at least associates degrees, while these percentages are lower for the other study periods.

Table 13: Underemployed Workers Occupational Sectors and Education Levels Comparison

| | 2005 Report | | 2009 Report | | 2012 Report | | 2015 Report | | |
|---|---------------|-------------|--------------------|---------------|---------------|--------------------|---------------|-------------|--------------------|
| | 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 | |
| Underemployed Wrkrs | 28,032 | 53.0 | 16,551 | 31.0 | 12,532 | 25.9 | 17,993 | 31.3 | |
| Willing to Change Job to Address Status | 24,900 | 89.0 | 14,251 | 86.0 | 10,465 | 83.5 | 9,000 | 50.0 | |
| Labor Sector | | | | | | | | | |
| | 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 | |
| High Skill Labor | 3,520 | 12.6 | 1,735 | 10.5 | 1,279 | 10.2 | 2,458 | 13.7 | |
| Service Sector | 12,882 | 46.0 | 8,399 | 50.7 | 6,850 | 54.7 | 8,417 | 46.8 | |
| Professional | 3,403 | 12.1 | 2,597 | 15.7 | 1,128 | 9.0 | 1,931 | 10.7 | |
| Total | 28,032 | 100 | 16,551 | 100 | 12,532 | 100 | 17,993 | 100 | |
| Highest Education | | | | | | | | | |
| | Number | Percent | Cumulative Percent | Number | Percent | Cumulative Percent | Number | Percent | Cumulative Percent |
| Doctoral Degree | 476 | 1.7 | 1.7 | 775 | 4.7 | 4.7 | 320 | 2.6 | 2.6 |
| Masters Degree | 2,006 | 7.2 | 8.9 | 439 | 2.7 | 7.3 | 826 | 6.6 | 9.1 |
| Bachelors Degree | 4,841 | 17.3 | 26.1 | 3,225 | 19.5 | 26.8 | 1,365 | 10.9 | 20.0 |
| Associates Degree | 2,473 | 8.8 | 34.9 | 2,627 | 15.9 | 42.7 | 1,807 | 14.4 | 34.5 |
| Some College | 9,812 | 35.0 | 69.9 | 3,708 | 22.4 | 65.1 | 4,463 | 35.6 | 70.1 |
| High School Diploma | 6,815 | 24.3 | 94.3 | 5,099 | 30.8 | 95.9 | 3,135 | 25.0 | 95.1 |
| Less HS Diploma | 1,609 | 5.7 | 100 | 678 | 4.1 | 100 | 616 | 4.9 | 100 |
| Total | 28,032 | 100 | | 16,551 | 100 | | 12,532 | 100 | |
| | | | | | | | 17,993 | 100 | |

Methods

The Pettis County Labor Basin has a total population 257,880 and a Civilian Labor Force of 123,812. The average unemployment rate was about 6.3% at the time of the study. The basin contains an Available Labor Pool of 85,055 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 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, the unemployed who are no longer seeking employment, military personnel who may be leaving military employment in the near future and retired individuals who may be available for work but have not been looking for work recently.

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

Defining the Available Labor Pool

An alternative to the Civilian Labor Force is the “Available Labor Pool.”⁶ The Available Labor Pool is composed of workers categorized as either 1) currently not working *and* looking for employment, 2) currently not working *but* interested in employment, 3) currently working *and* looking for other full-time employment, and 4) currently working and not looking, *but* interested in different employment for the right opportunities.

There are two key differences between the Civilian Labor Force and the Available Labor Pool. First, the Available Labor Pool methodology expands the pool of potential workers by including workers excluded from the Civilian Labor Force⁷. Secondly, the number of potential workers is then *restricted* to those workers who indicate they are looking for work or that are interested in new employment. The advantage of this methodology is that it allows researchers to examine

⁶ 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).

⁷ 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 2015 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.⁸ Surveying took place from November 2014 through February 2015, using a Computer Assisted Telephone Interviewing (CATI) system. A total of 4,401 households were successfully contacted during the data collection period, and a randomly selected adult in each was asked to participate in the study.⁹ In 2,364 households the selected adult agreed to be interviewed. This represents a cooperation rate of 53.7% and a margin of error of +/-2.02%.

Survey respondents that were 65 years of age or older, retired and not interested in a new or different job were not asked the entire battery of survey questions and are not included in the analysis of this report. The remaining respondents (all other working and non-working respondents) total to 1,466, and are considered eligible respondents. Of these respondents, 803 or (62%) were looking for work or available for new or different employment. This subgroup is the Available Labor Pool for the West Central Missouri Region. The Margin of Error for the regional Available Labor Pool is +/- 3.46%.

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 724 cooperating and eligible respondents lie within the basin. Of these respondents, 396 constitute 2015 Available Labor Pool for the Pettis County Labor Basin (Margin of Error = +/- 4.92%.

Data collection for the 2005, 2009, and 2012 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 valid, reliable and unbiased. Question wording and design of the survey instrument are the property of the Docking Institute.¹⁰

⁸ 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.

⁹ 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.

¹⁰ 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

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 categorized as either 1) currently not working *and* looking for employment, 2) currently not working in any manner *but* interested in a new or different job given the right opportunities, 3) employed (full- or part-time) *and* looking for other full-time employment, and 4) currently employed and not looking, *but* interested in different employment given the right opportunities.

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

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

Within the Necessary Commute Time – “Necessary Commute Time” is the 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 actually commute from his or her zip code of residence to the zip code at the center of the labor basin. For example, a respondent that 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.

Within the Necessary Commute Time Available Labor Pool – The “within the necessary commute time Available Labor Pool” is a subset of the Available Labor Pool that is composed of those members of the Available Labor Pool that are within the necessary commute time for a new or different job opportunity.

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

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

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

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

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

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

Appendix: Hourly Wage to Annual Salary Conversion Chart

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