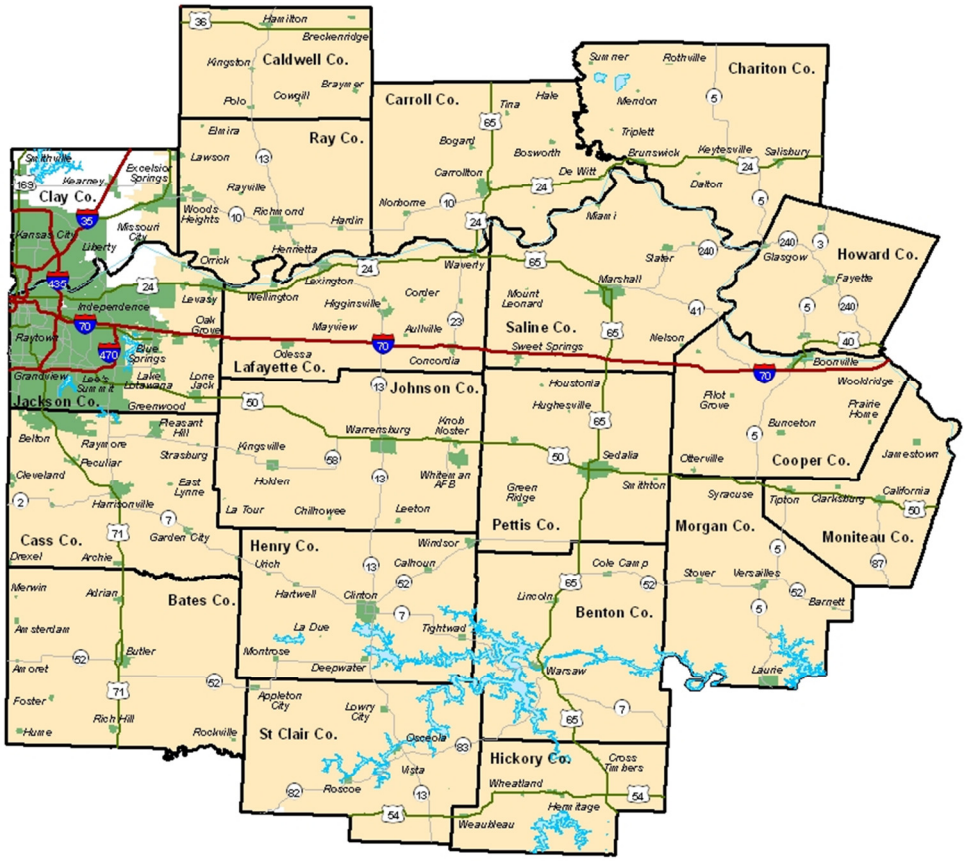
West Central Missouri Region

Labor Availability Analysis – 2015

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

Bates ● Benton ● Caldwell ● Carroll ● Cass ● Chariton ● Clay ● Cooper ● Henry ● Hickory ● Howard ● Jackson ● Johnson ● Lafayette ● Moniteau ● Morgan ● Pettis ● Ray ● Saline ● St. Clair Counties

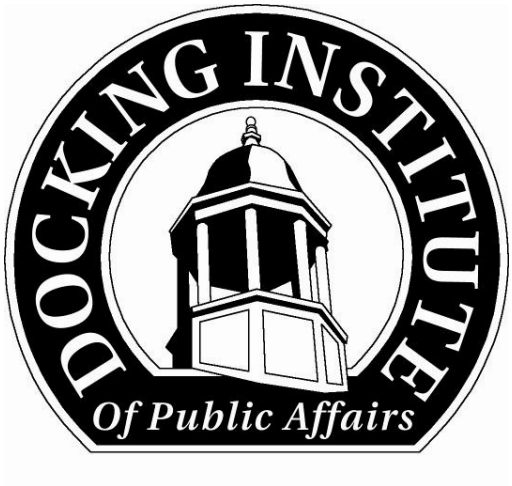


Prepared For

Central Missouri Economic Development Alliance

By

The Docking Institute of Public Affairs



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Mission:

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2005, 2019 and 2012 Labor Availability Analyses

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Represented by:

Henry County
Johnson County
Lafayette County
Pettis County
Saline County

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Executive Summary

The West Central Missouri Region includes Bates, Benton, Caldwell, Carroll, Cass, Chariton, Cooper, Henry, Hickory, Howard, Johnson, Lafayette, Moniteau, Morgan, Pettis, Ray, Saline, and St. Clair Counties in Missouri, plus portions of Clay and Jackson Counties east of Kansas City. The purpose of this report is to assess the "Available Labor Pool" in this labor basin. The "Available Labor Pool" represents those who indicate that they are looking for employment or would consider changing their jobs for the right employment opportunity.

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

- The population of the West Central Missouri Region is 528,679. About 30% of the population (or 163,525 individuals) is considered to be part of the Available Labor Pool.

- Of the non-working members of the Available Labor Pool, an estimated 15,321 (9.4%) are currently looking for work and 24,729 (15.1%) are interested in working for the right opportunities. Of the working members of the Available Labor Pool, 28,391 (17.4%) are currently looking for work, while 95,084 (58.1%) are interested in a different job given the right opportunities.

- Almost 69% of the Available Labor Pool has at least some college experience and almost 96% has at least a high school diploma. The average age for members of the Available Labor Pool is about 45 years old, and women make up slightly less than half (47%) of the Available Labor Pool.

- An estimated 28,042 members of the Available Labor Pool are currently employed as general laborers, while an additional 16,525 work in government services or technical/high skill blue-collar occupations. An estimated 56,284 members of the Available Labor Pool work in service sector jobs, while 22,501 work in professional white-collar jobs. Many (40,173) are not currently working.

- Almost 80% 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."

- Slightly more than half (51.6%) of the members of the Available Labor Pool will commute up to 45 minutes, one way, for an employment opportunity, while almost 89% 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, good health benefits, good vacation benefits, and on-the-job or paid training.

- An estimated 27,892 members (17%) of the Available Labor Pool are interested in a new job at $10 an hour, 62,357 (38%) are available at $15 an hour, and 94,424 (58%) are available at $20 an hour.

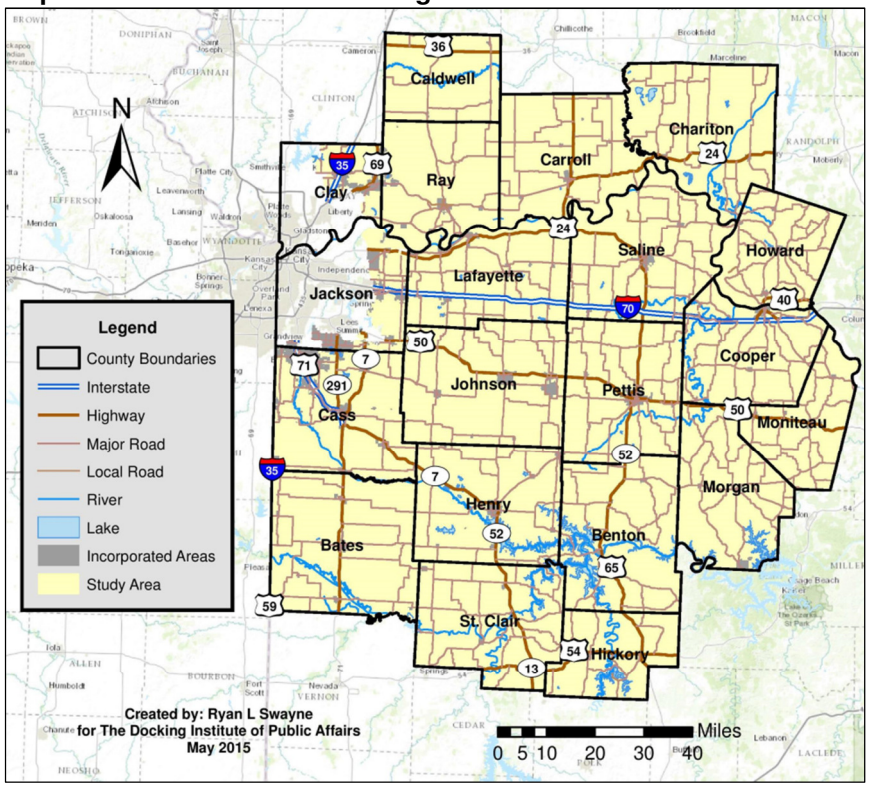
- Of the 123,352 members in the subset of *employed members* of the Available Labor Pool, 39,733 (32%) consider themselves underemployed.

- 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 structure of the 2015 is similar to the 2005 pool, suggesting the recent recession affected the pool structures presented in the 2009 and 2012 reports.

The West Central Missouri Region

The West Central Missouri Region includes eighteen counties in west central Missouri and portions of two more near Kansas City (see Map 1 below). This report provides an overview of the entire labor region – which is made up of five labor basins: Henry, Johnson, Lafayette, Pettis, and Saline. Please see individual reports for more details about each labor basin.

Map 1: West Central Missouri Region



The West Central Missouri Region has a total population of approximately 528,679, and a Civilian Labor Force of 256,020. The total number of employed is 239,273 and the average unemployment rate was 6.54% at the time of this study.

The Docking Institute's analysis suggests that the basin contains an Available Labor Pool of 163,525 individuals. The Available Labor Pool is composed of workers categorized as either 1) currently not working *and* looking for full-time employment, 2) not working *but* interested in full-time employment, 3) currently working (full- or part-time) *and* looking for other full-time employment, and 4) currently employed *but* interested in different full-time employment for the right opportunities. Please see the Methodology section – page 28 – for more information about the Institute's Available Labor Pool analysis methodology and the survey research methods used for this study.

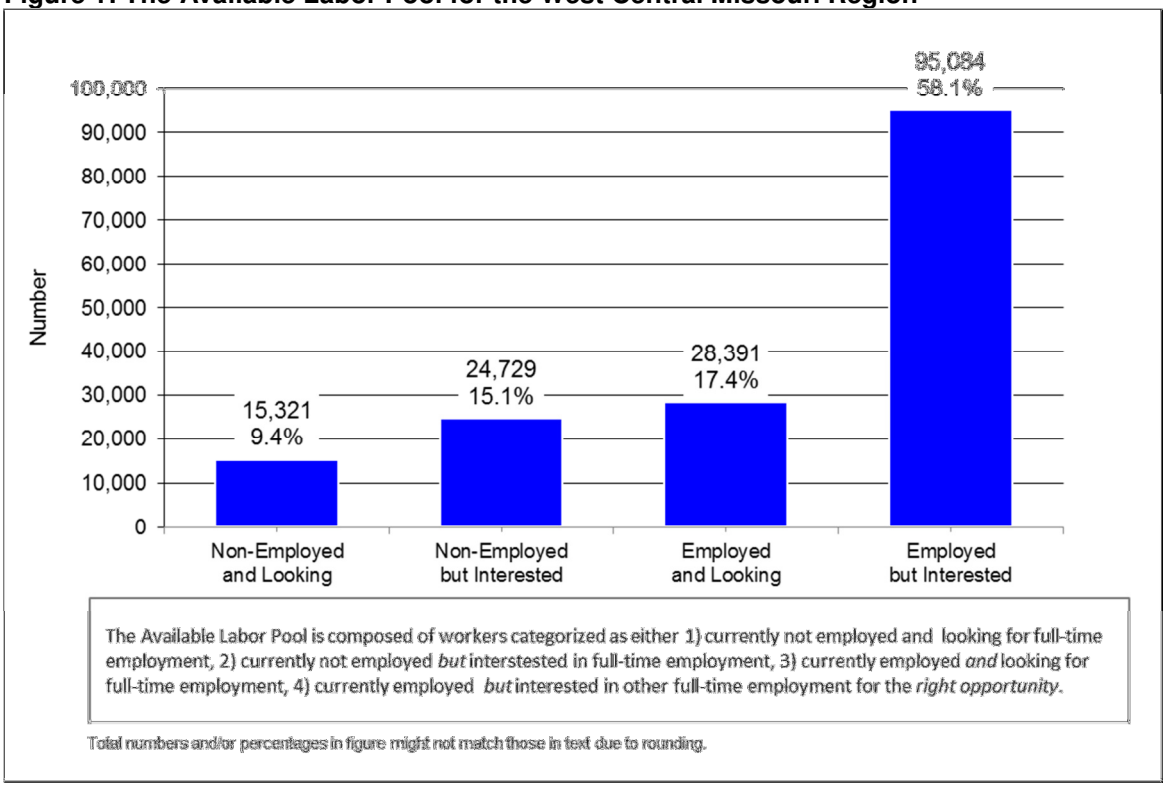
The West Central Missouri Region's Available Labor Pool

This section of the report assesses the characteristics of the Available Labor Pool in the West Central Missouri Region by answering the following questions:

- What proportion of the labor force – employed, unemployed, homemaker, students, retired, and disabled – would seriously consider a new full-time employment opportunity?
- What skills do those who would consider a new employment opportunity have?
- What types of jobs have these workers and potential workers had in the past?
- What types of considerations (pay, benefits, commute time) shape their decision-making?
- What percentage of the Available Labor Pool is willing to change fields of employment?
- What work shifts are Available Labor Pool members willing to work?
- What proportion of those workers among the Available Labor Pool is considered "underemployed?"
- What are some of the characteristics of those underemployed workers?
- How do the results of this study compare to those shown in 2005, 2009, and 2012 reports?

It is estimated that 15,321 (9.4%) members of the Available Labor Pool) are non-employed[1] and looking for employment, while 24,729 (15.1%) are non-employed but interested in a job for the right opportunities. In addition, 28,391 (17.4%) members of the Pool are employed and currently looking for different employment, while 95,084 (58.1%) are employed but interested in new employment for the right opportunities.

Figure 1: The Available Labor Pool for the West Central Missouri Region



[1] The terms "non-employed" and "non-working" refer to officially unemployed members of the Civilian Labor Force *as well as* any non-employed/non-working full-time students, homemakers, retirees, and disabled individuals.

Map 2 shows how each Zip Code compares to all other Zip Codes in terms of the percent of total Pool member in the West Central Missouri Region. Each Zip Code is grouped into one of five categories specified in the legend. Four percent or more of the Available Labor Pool is located in Zip Code areas in Pettis and Johnson Counties. Between 2% and 3.99% of the Pool is also located in Zip Code areas in Cass, Clay, Henry, Jackson, Ray and Saline Counties. Between 1% and 1.99% of the Pool is also located in Zip Codes areas in Bates, Benton, Cooper, Lafayette and Moniteau Counties. The remaining counties contain .99% or less of the Available Labor Pool for the entire region.

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

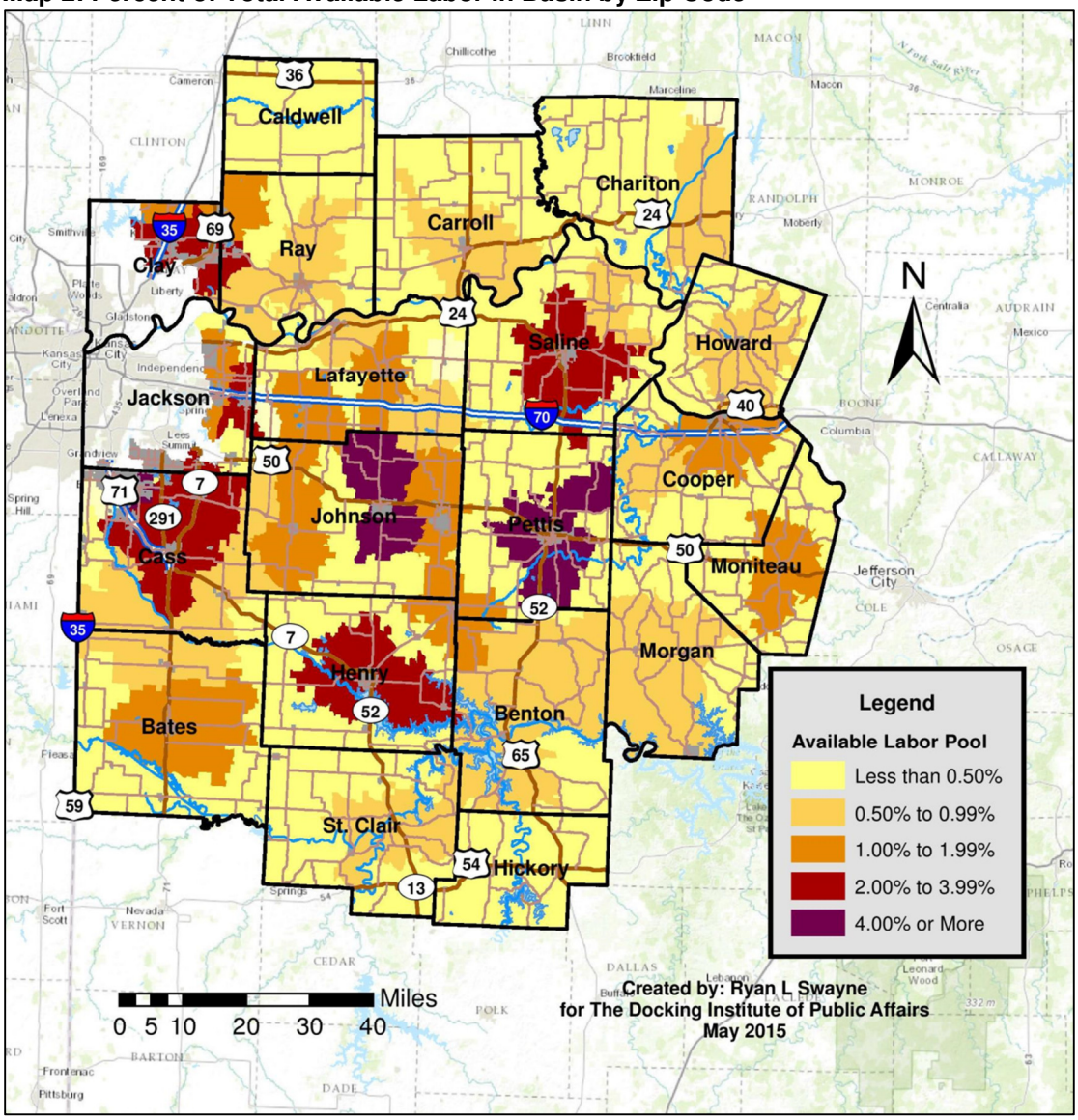


Table 1 shows the gender, age and education levels of the 163,525-member Available Labor Pool. Slightly less than half (47%) of the Pool is women, and the average age is about 45 years old. Most (95.8%) have at least a high school diploma, more than two-thirds (68.7%) have ***at least*** some college education, and a third (33.0%) 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 74		
Average	45		
Median	46		
Gender	Number	Percent	
Female	76,857	47.0	
Male	86,669	53.0	
Total	163,525	100	
			Cumulative
Highest Level of Education Achieved			Percent
Doctoral Degree	2,376	1.5	1.5
Masters Degree	18,156	11.1	12.6
Bachelors Degree	33,392	20.4	33.0
Associates Degree	21,044	12.9	45.8
Some College (including current students)	37,315	22.8	68.7
High School Diploma	44,281	27.1	95.7
Less HS Diploma	6,961	4.3	100
Total	163,525	100	
"Do you speak Spanish?"	Number	Percent	
"Yes"	30,555	18.7	
Speak Very Well	*1,814*	*5.9*	*These percentages represent portions of 18.7%*
Speak Fairly Well	*2,696*	*8.8*	
Speak Only a Little	*26,045*	*85.2*	
		100	

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

Table 2 shows the various occupational categories of the 163,525-member Available Labor Pool. General labor occupations represent 17.1% of the entire Available Labor Pool, while high-skilled, blue-collar jobs make up 10.1%. Traditional service-related occupations represent 34.4% of the Available Labor Pool, while professional occupations represent 13.8% of the Available Labor Pool. Non-employed members of the Pool make up almost a quarter (24.6%) of the total.

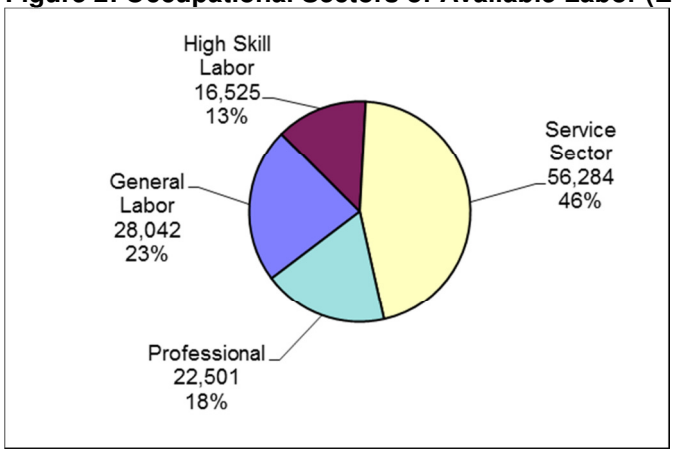
Table 2: Major Occupational Categories of Available Labor

			Years at Job	
	Number	Percent	Mean	Median
General Labor/Delivery	11,557	7.1	11.1	5.1
Manufacturing/Maintenance/Trucking	16,484	10.1	10.6	8.0
Total General Labor	*28,042*	*17.1*	*10.9*	*6.6*
Mechanic/Welder/Comp Tech	7,322	4.5	9.2	8.0
Crew Management/Protection Services	9,203	5.6	13.1	11.7
Total Highly-Skilled Labor	*16,525*	*10.1*	*11.2*	*9.9*
Customer Service	20,394	12.5	7.0	4.0
Clerical	6,311	3.9	7.0	5.0
Office or Dept Manager	12,218	7.5	12.7	10.1
Health Aid/Nurse	10,020	6.1	9.2	5.0
Education Aid/Teacher	7,342	4.5	8.4	6.0
Total Service Sector	*56,284*	*34.4*	*8.9*	*6.0*
Exec Management	8,966	5.5	12.5	6.3
Accounting/Engineering	7,370	4.5	10.0	5.0
Doctor/Professor/Attorney	4,705	2.9	15.0	13.4
Writer/Artist/Musician	1,459	0.9	8.6	3.0
Total Professional Sector	*22,501*	*13.8*	*11.5*	*6.9*
Homemaker/Student/Unemployed	25,927	15.9	n/a	n/a
Retired/Disabled	14,246	8.7	n/a	n/a
Total Non-Employed	*40,173*	*24.6*		
Total	163,525	100		

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

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 West Central Missouri Region, survey respondents were asked questions assessing work skills and previous work experience.

Table 3 and Figure 3 (next page) show the current employment status and previous work or training experience of Available Labor Pool members. Table 3 shows the number of workers currently employed in various job categories, as well as the number of workers that have previous work or training experience. 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, 7,229 members of the Available Labor Pool in the West Central Missouri Region are currently employed as general labor, construction, cleaners, and similar positions. An additional 6,795 Available Labor Pool members in the basin indicate previous employment experience or training in one of those jobs, for a total of 14,023 individuals.

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

	Current Employment* Number	+	Previous Work/Training* Number	=	Current plus Previous Work or Training** Number
Working with Hands					
General Labor	7,229		6,795		14,023
Farm or Ranch Labor	1,778		880		2,659
Manufacturing and Assembly	6,148		12,013		18,161
Maintenance	3,024		1,763		4,786
Driving (Delivery, Bus, Postal)	2,550		1,462		4,012
Truck Driving/Heavy Equipment Operator	7,313		2,897		10,210
Skilled Labor	4,579		5,587		10,166
Crew Management	4,706		2,127		6,832
Working with People					
General Customer Service	20,394		27,063		47,456
Office Management	12,218		13,482		25,700
Governmental Services	4,498		5,222		9,720
Executive Management	8,966		3,031		11,997
Advanced Social Services	2,695		2,671		5,366
Working with Numbers					
Clerical	6,311		3,466		9,777
Accounting/Finance/Banking	2,101		1,905		4,006
Researcher/Analyst	872		119		991
Working with Technology					
IT and Other (Non-Med) Tech. Maint.	2,743		2,375		5,118
Software Dev./Comp. Programming	3,083		2,436		5,519
Engineer/Designer	1,315		168		1,482
Providing Health Services					
Health Aid	5,654		3,381		9,035
Nurse	4,366		2,983		7,349
Advanced Medical Practitioner	663		0		663
Providing Educational Services					
Education Aid	3,248		816		4,064
Teacher/Trainer	4,094		4,253		8,347
Professor/Lecturer	1,348		0		1,348
Creative Arts					
Writer/Artist/Musician	1,459		2,054		3,513
Total	123,352		108,947		*232,300*

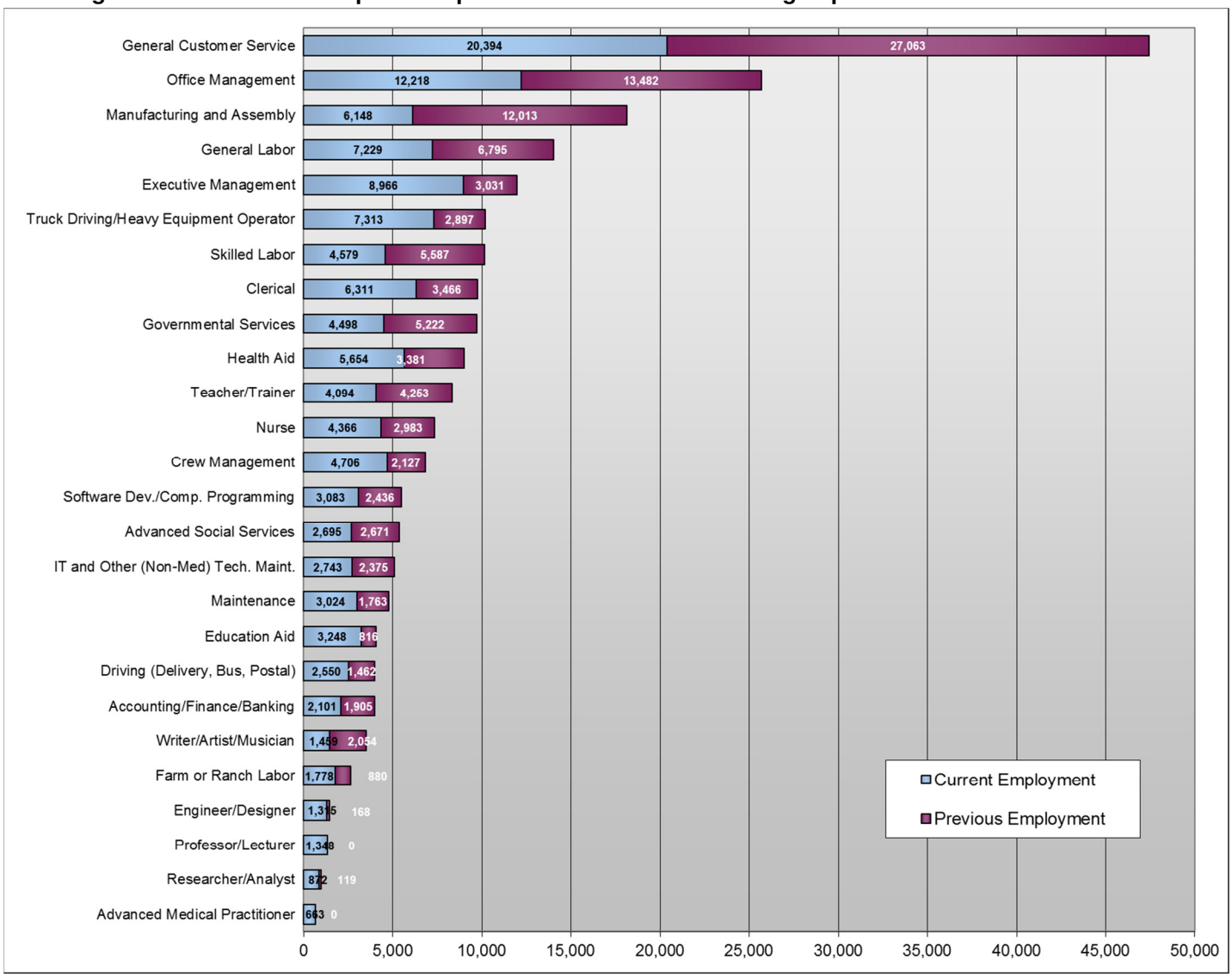
* Retired, disabled, non-working students, homemakers are not included.

** An individual member of the ALP is counted only once within each employment category. If jobs are dublicate, 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 20,394 working Available Labor Pool members currently employed in this category and 27,063 previously employed/trained in this category, for a total of 47,456 individuals.

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



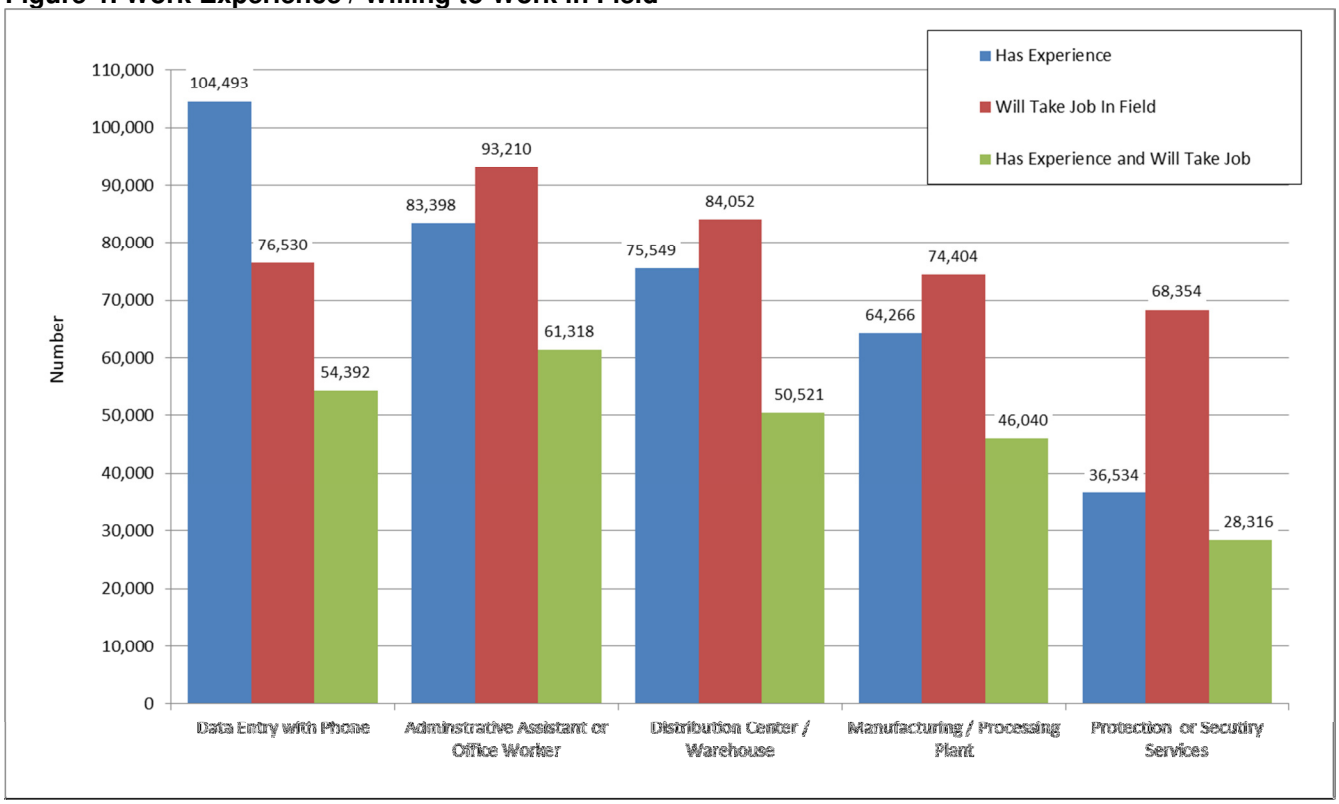
In addition to collecting data regarding the current employment status and previous work or training experience through a series of “open-ended” survey questions (the results of which are shown in the previous table and figure), respondents were asked about the five specific employment areas listed in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

The figure shows that an estimated 104,493 Available Labor Pool members report having training and/or experience in data entry with telephone operation, while fewer (76,530 individuals) would consider employment in that field. An estimated 83,398 members of the Available Labor Pool have training and/or experience as an administrative assistant or office worker, while more (93,210 individuals) would take a job in that field.

An estimated 75,549 members of the Available Labor Pool suggest that they have training or experience working in a distribution center or warehouse while 84,052 would consider a job in that field. An estimated 64,266 have experience working in a manufacturing plant or processing center while 74,404 would take a job in that field. Finally, 36,534 have training or experience in protection or security services, while more (68,354) would consider employment in that field.

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

Figure 4: Work Experience / Willing to Work in Field



Survey respondents indicating 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 almost half (48%) of those indicating distribution/warehousing experience moved materials or loaded trucks. Additionally, more than half (53%) of those indicating training or experience in manufacturing/processing had jobs/training in procession, fabrication or assembly.

Figure 4a: Work Experience in Distribution Center or Warehouse

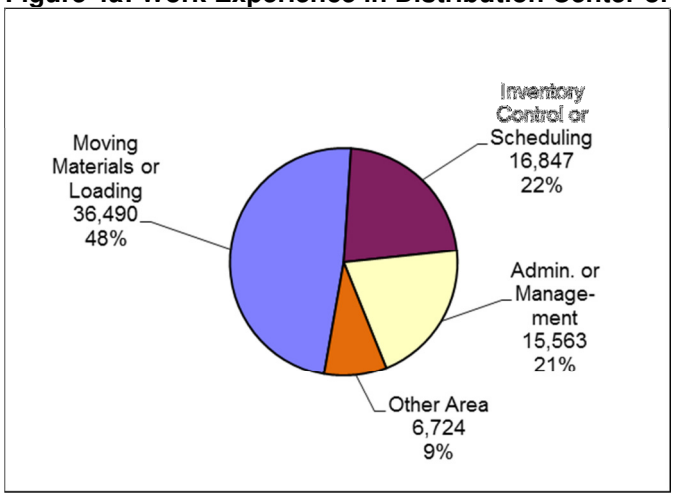
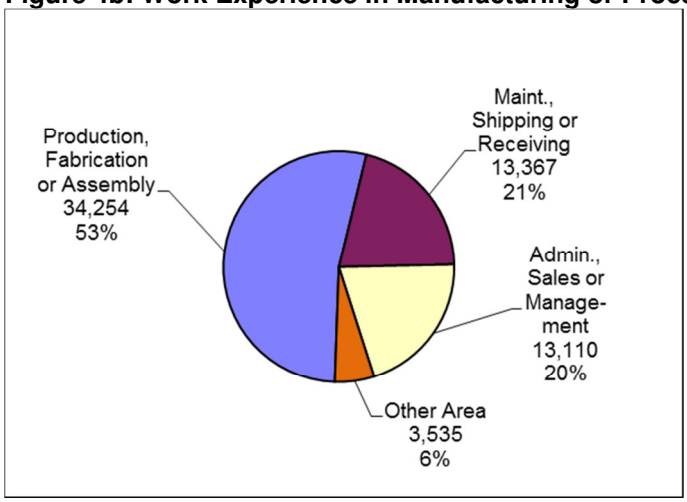


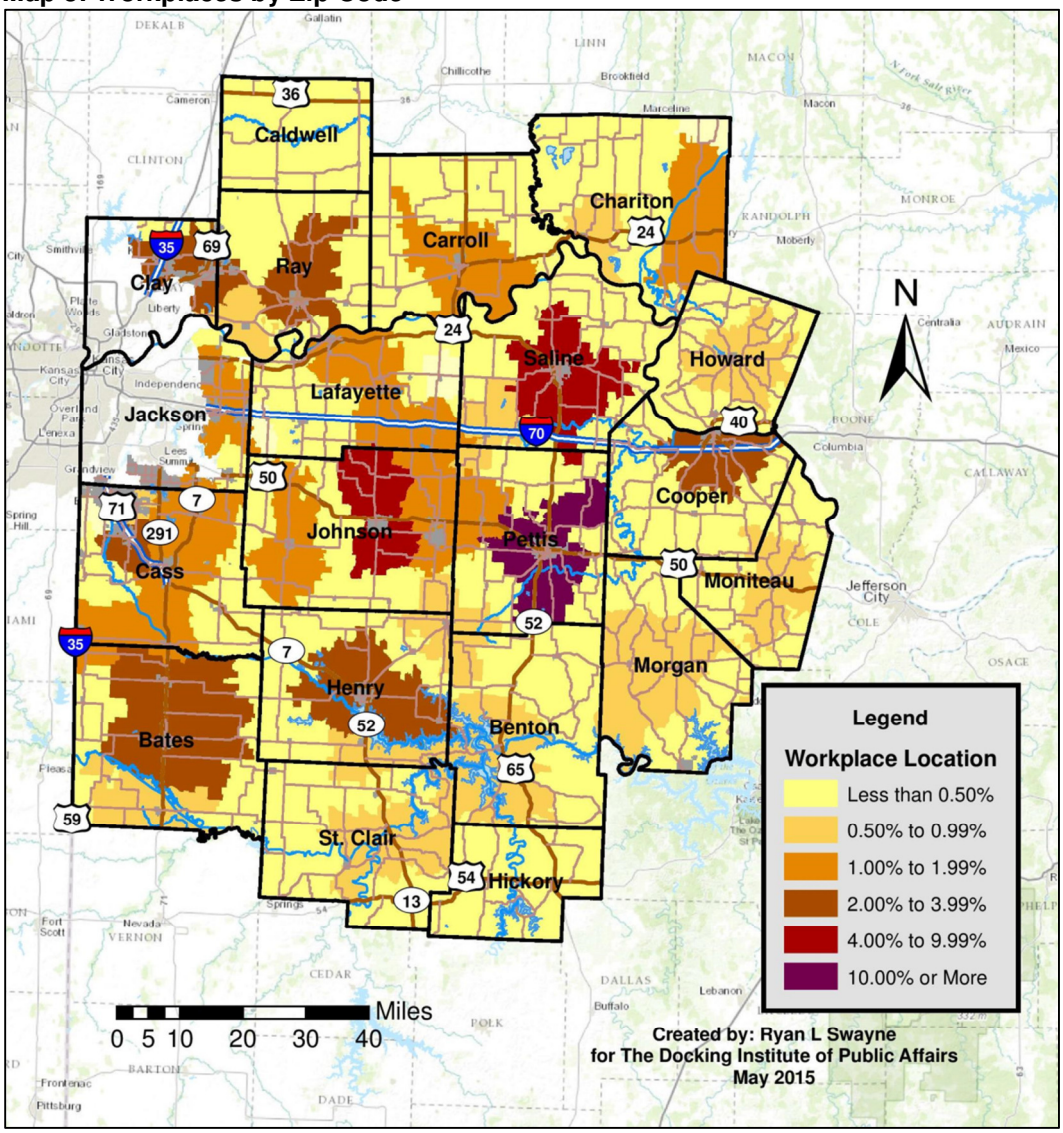
Figure 4b: Work Experience in Manufacturing or Processing Plant



Working Available Labor Pool members were asked for the zip code of their workplaces. Map 3 shows the locations of employers *within the basin* by Zip Code area. Zip Code areas are grouped into one of six categories specified in the legend.

Ten percent or more workplaces *located in the labor basin* are in Zip Code areas in Pettis County. Between 4% and 4.99% of the workplaces also located in Zip Code areas in Johnson and Saline Counties. Between 2% and 3.99% are also located in Bates, Cass, Clay, Cooper, Henry, and Ray Counties. Between 1% and 1.99% are also located in Carroll, Chariton, Jackson, and Lafayette Counties. Less than 1% of the workplaces are located in Zip Code areas in the remaining counties.

Map 3: Workplaces by Zip Code



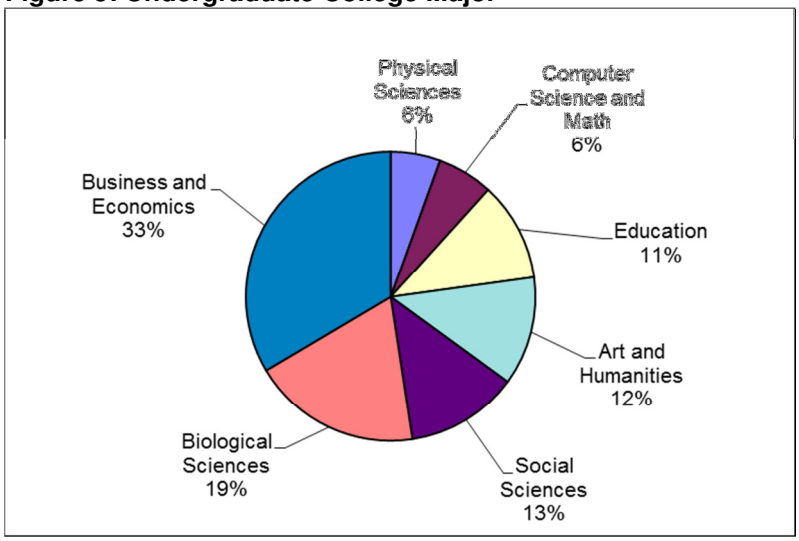
Educational Experience

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

Social Sciences: Sociology, Psychology, Anthropology, Politics and Social Work.
Biological Sciences and Health: Biology, Agriculture, Nursing, Pre-med, Pre-vet and Human Performance.
Physical Sciences and Engineering: Physics, Geology, Chemistry and Engineering.
Business and Economics: Management, Accounting, Finance, Marketing and Economics.
Education: Elementary and Secondary Teaching.
Computer Science and Math: Computer Programming or Technology, Networking, Web Design and Math.
Arts and Humanities: Art, Music, History, Philosophy and Languages.

Figure 5 shows that the largest groups of Available Labor Pool members indicate a major in business and economics (33%), biological sciences (19%), social sciences (13%), arts and humanities (12%), and education (11%). Computer science and math and physical sciences follow with a combined total of 12%.

Figure 5: Undergraduate College Major



Survey respondents with at least some college education were asked if they are attending or have attended a technical or community college. Figure 7b (next page) shows that 15% of these respondents have technical or community college experience.

Figure 6 shows the area of study for community college students. Almost a fifth (18%) report studying nursing/health related subjects, while 15% report studying information technology.

Less than 10% are studying (or have studied) manufacturing technology or automotive technology. Less than 5% are studying (or have studied) office skills, beautician skills, food professing or truck driving.

Figure 6: Community College Experience

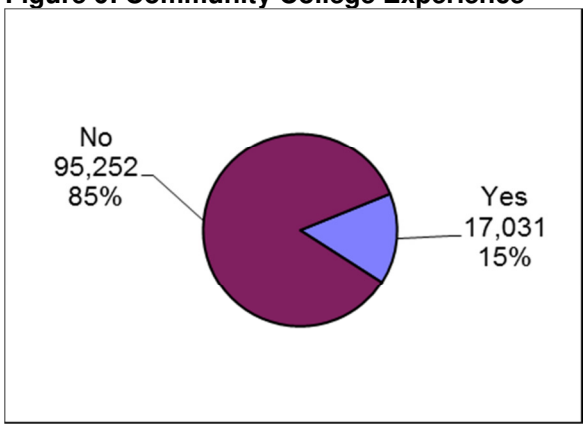
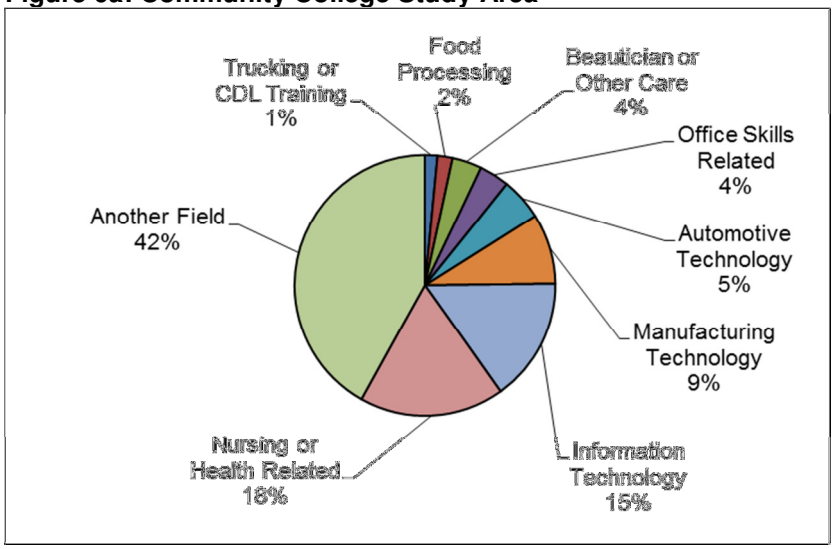


Figure 6a: Community College Study Area



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 West Central Missouri Labor Region, however. Figure 7 shows that 130,394 (79.6%) members of the Available Labor Pool are willing to accept positions outside of their primary fields of employment.

Figure 7: Considerations for Employment

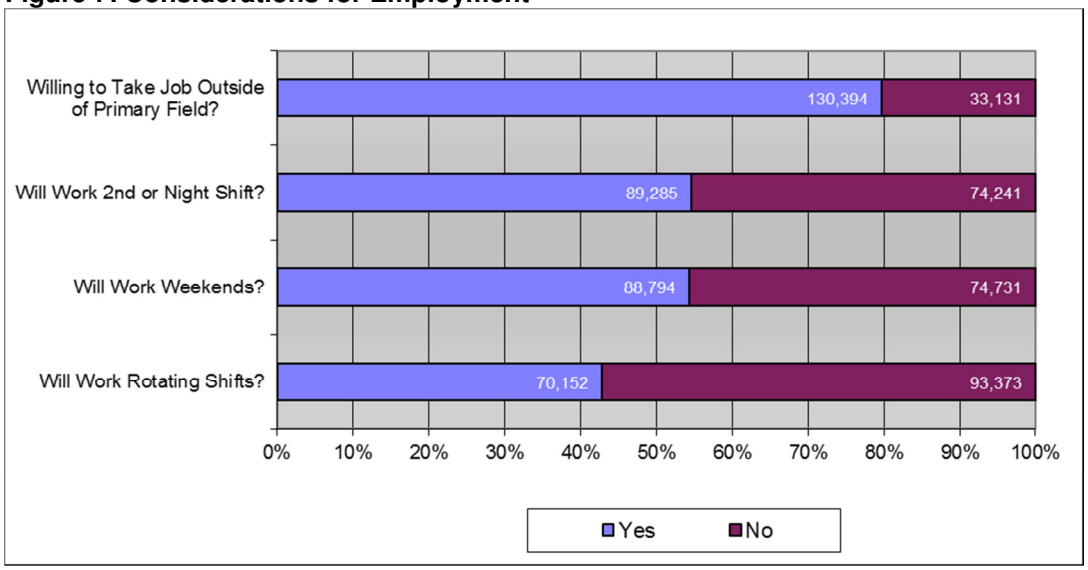
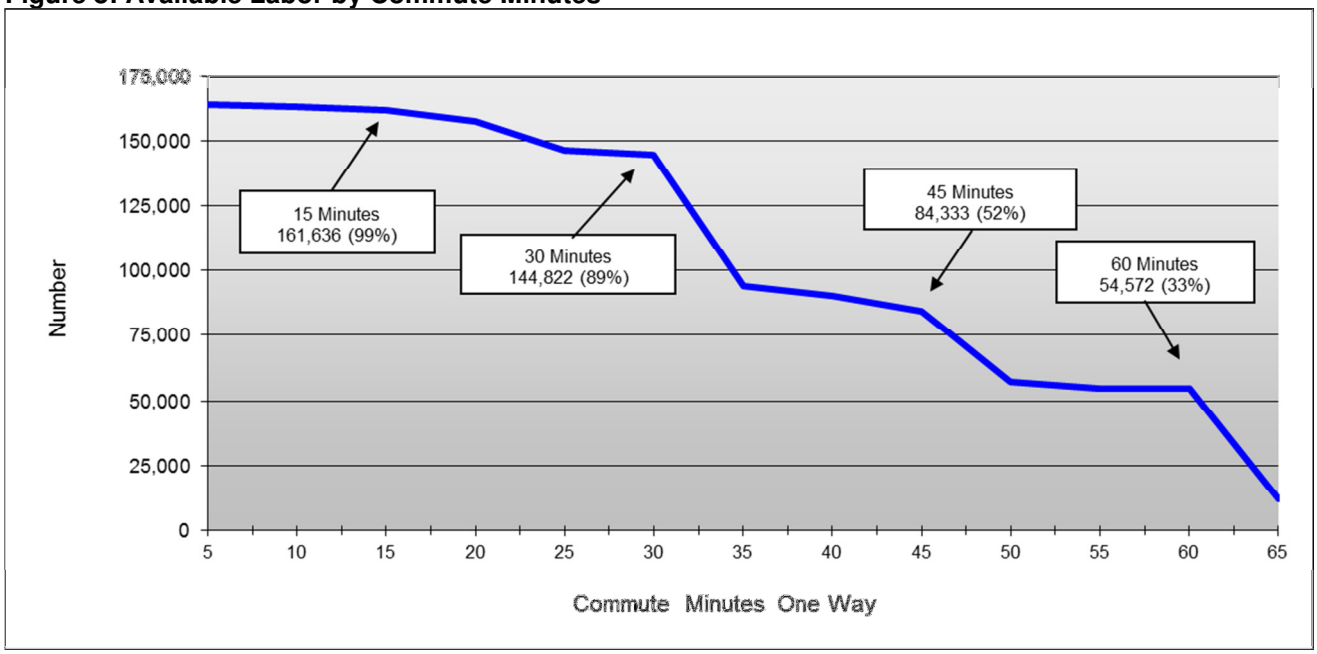


Figure 7 also shows responses to three questions regarding work shifts. Respondents were asked if they would be willing to work weekends, a second or night shift and rotating shifts.

The figure shows that about 55% of the Available Labor Pool indicates that they are willing to work second shifts or night shifts. Nearly as many, 54.3%, indicate that they are willing to work weekends. Less than half of the respondents (43%) indicate that they 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 8 suggest that the Available Labor Pool in the West Central Labor Region is open to commuting. More than half (52%) of the members of the Available Labor Pool will commute up to 45 minutes, one way, for an employment opportunity, while 89% will commute up to 30 minutes for employment. Almost all (99%) will travel up to 15 minutes for employment.

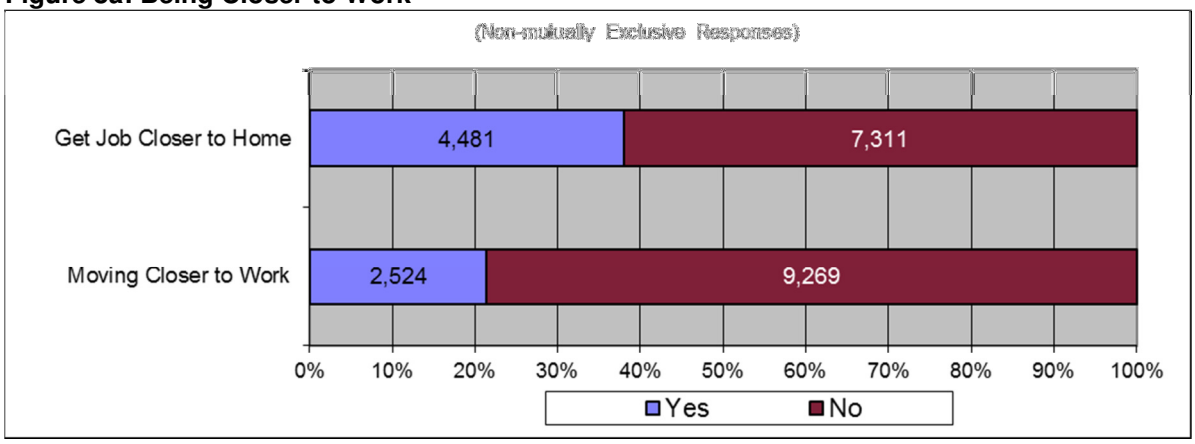
Figure 8: Available Labor by Commute Minutes



Working members of the Pool indicating they are willing 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 38% of this subset of the Pool would consider getting a new job closer to their place of residence, and about 21% would consider relocating to be closer to their place of work.

Figure 8a: Being Closer to Work



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

Figure 9 (next page) shows various benefits affecting the decisions of current workers to take a different job and potential workers to take a new job.

The five most important benefits are, in order, good salary or hourly pay, good retirement benefits, good health benefits, good vacation benefits, and on-the-job or paid training. Each one of these benefits is considered “very important” by more than 80% Available Labor Pool each.

Flexible hours or flex-time follows closely with about 74%. The least desired benefits are good educational assistance and transportation assistance, which were considered “very important” by 52% and 27% Available Labor Pool members, respectively.

Figure 9: Benefits Very Important to Change Employment

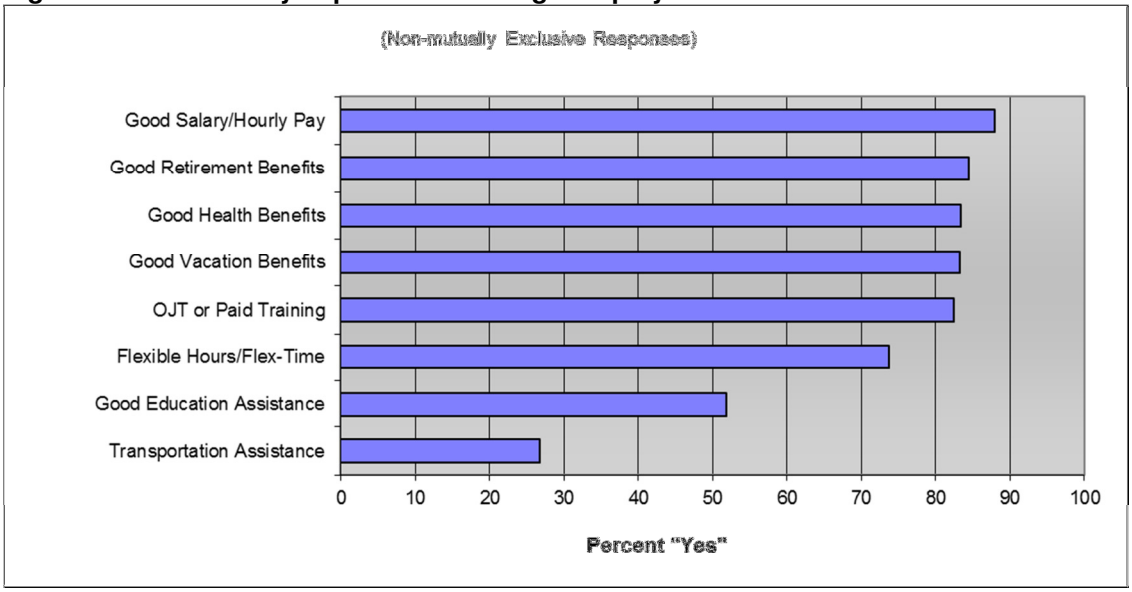


Table 4 lists some of these benefits, as well as percentages, of *working* Pool members that are currently offered these benefits. The left column shows the percentages of all Pool members that said the benefit is a *very important* consideration for taking a new or different job, while the right column shows the percentages of *working members* of the Available Labor Pool that are offered the benefit from their current employers.

Good retirement benefits and flexible hours/flex-time stand out with almost 16% differences between those that desire those benefits and those that receive those benefits.

Table 4: Desired Benefits and Current Benefits Offered

	Benefit Important to Change Jobs Percent	Benefit Currently Offered* Percent
Good Salary/Hourly Pay	88.0	80.2
Good Retirement Benefits	84.5	68.7
Good Health Benefits	83.4	77.3
Good Vacation Benefits	83.2	77.8
OJT or Paid Training	82.4	73.3
Flexible Hours/Flex-Time	73.7	58.1
Good Education Assistance	51.9	47.0
Transportation Assistance	26.8	17.8

* This column respresents w orking ALP members only.

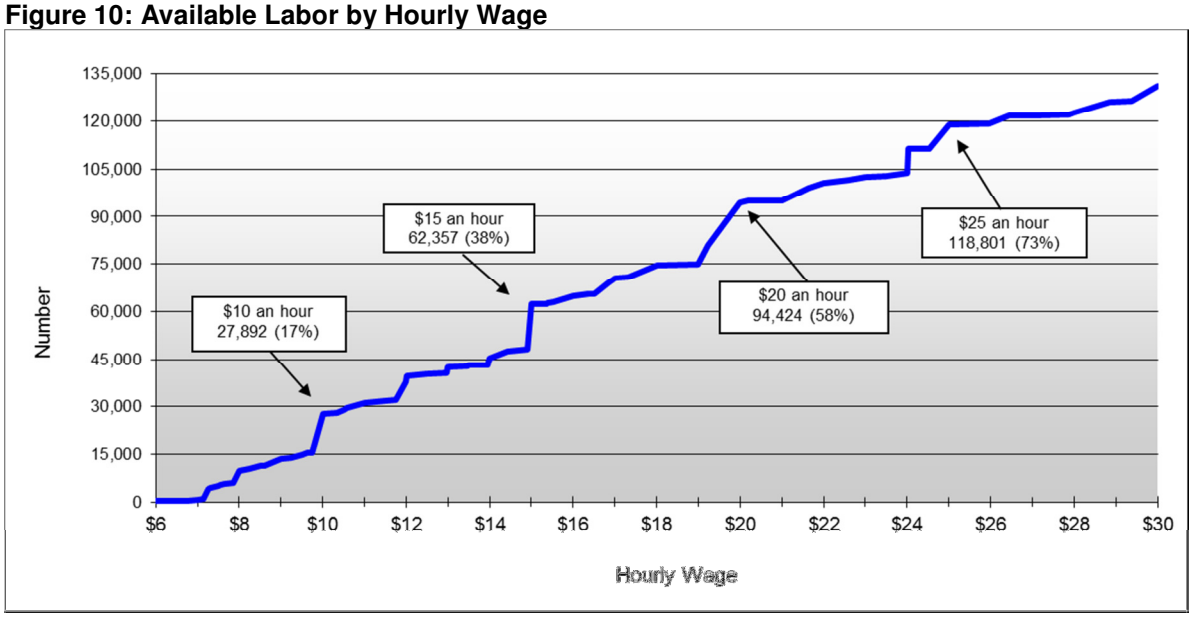
Wage Demands of Available Labor Pool

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 118,801 people (or 73% of the available labor) are interested in a new job at $25 an hour[2].

An estimated 94,424 (58%) members of the Pool are interested in new employment opportunities at $20 an hour, while 62,357 (38%) are interested at $15 an hour.

Finally, an estimated 27,892 people (17%) are interested in a new job at $10 an hour.

Figure 10: Available Labor by Hourly Wage



The figure above suggests the obvious: that the higher the wage, the larger the pool of available labor. For example, 45,250 members of the Available Labor Pool are available for a new or different job at $14.00 an hour. At $15.00 an hour, the size of the Pool increases to 62,357 members. This represents an increase of 17,107 individuals.

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 a relatively insignificant or small increase in available labor. For example, 42,505 Pool members are available for $13.00 an hour. At $14.00 an hour, there are 45,250 individuals available. So, while there is certainly an increase in the number of Pool members at this higher wage rate, the increase is estimated to be only 2,744 individuals – a relatively small number, given the size of the Pool.

Other wage plateaus can be seen between $18.00 and $19.00 an hour (68 individuals), between $20 and $21 (633 individuals) and between $23 and $24 (1,161 individuals).

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

Underemployment Among 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 West Central Missouri Region, *employed members of the Available Labor Pool* were presented with a scenario describing underemployment[3]. They were then asked a series of questions assessing if they perceived 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 were limited in the number of hours that they could work.

Of the 123,352 *employed members* of the Available Labor Pool (shown in Figure 11), slightly less than a third answered "yes" to one or more of the questions presented above and are considered underemployed. Figure 12 shows that the underemployed workers represent 32% (or 39,733 individuals) of the employed members of the Available Labor Pool.

Figure 11: Employed Members of the Available Labor Pool

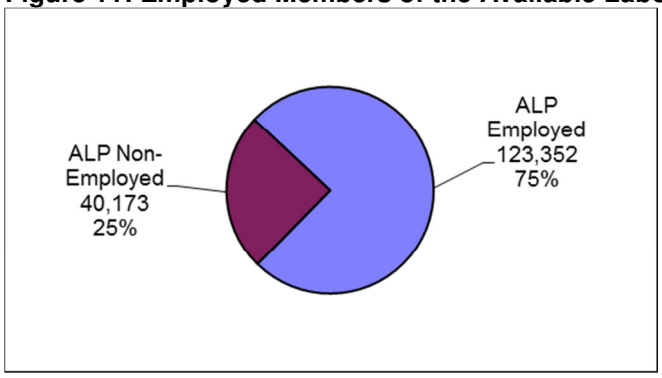
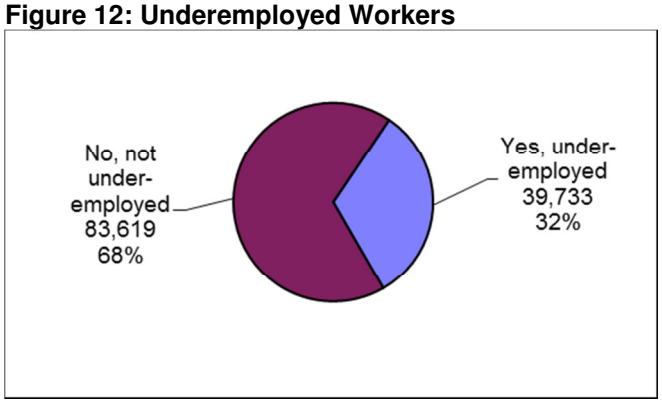


Figure 12: Underemployed Workers



[3] "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 12a shows the percentages of the positive responses (i.e., "yes" answers) to the various measures of underemployment. About 28% of this subset are underemployed because they possess education levels exceeding those needed for their current jobs. About 23% had previous but similar jobs that provided more income. About 22% has skill levels exceeding current job requirements. Finally, slightly more than 15% suggest they are not able to work enough hours.

Figure 12a: Reasons for Underemployment

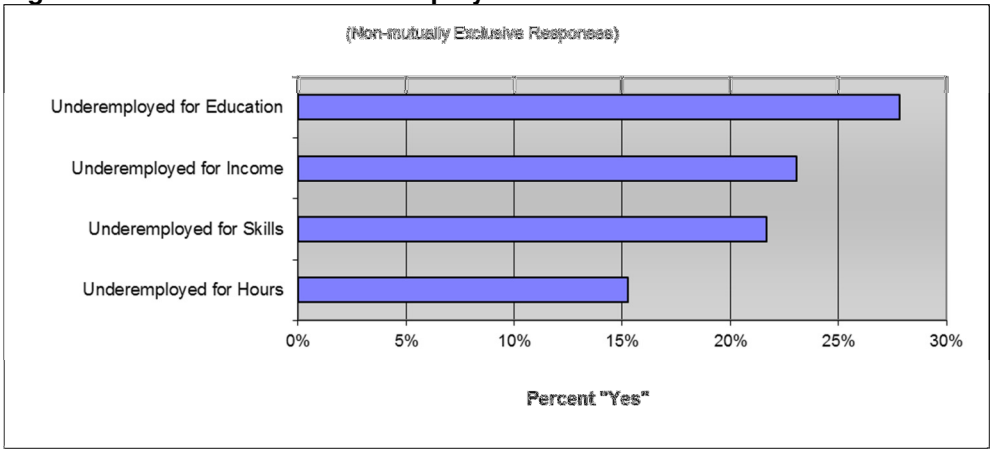


Table 5 and Figures 12b and 12c (next page) show some characteristics of the underemployed members of the Available Labor Pool.

Table 5 shows that the education level of the underemployed workers compares favorably to the overall Available Labor Pool with almost 69% having ***at least*** some college education and almost 45% having completed associates degrees. Table 1 (page 5) shows that 68.7% of the entire Available Labor Pool has some college experience and about 45.8% have completed an associate's degree.

Table 5: Highest Level of Education Achieved Among Underemployed

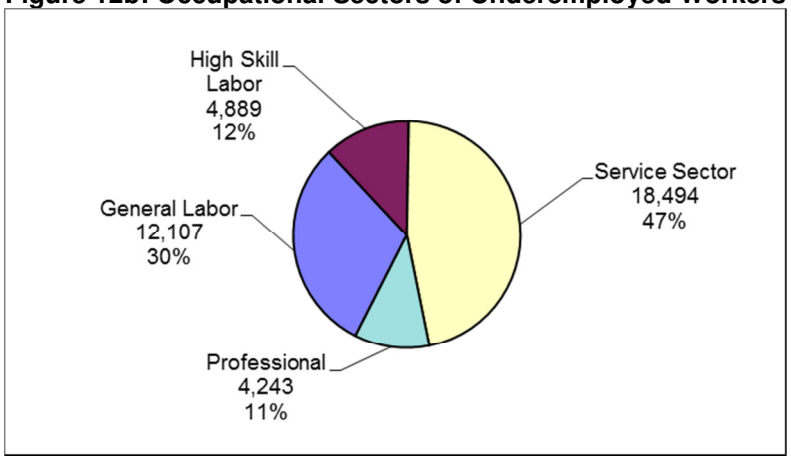
	Number	Percent	Cumulative Percent
Doctoral Degree	436	1.1	1.1
Masters Degree	4,494	11.3	12.4
Bachelors Degree	6,920	17.4	29.8
Associates Degree	5,962	15.0	44.8
Some College	9,510	23.9	68.8
High School Diploma Only	10,897	27.4	96.2
Less HS Diploma	1,514	3.8	100.0
Total	39,733	100	

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

Figure 12b shows that 30% of the underemployed workers are employed as general laborers and 12% are employed as skilled, blue-collar workers. The largest percentage of underemployed workers is employed as service sector and support workers (47%), while fewer (11%) hold professional positions.

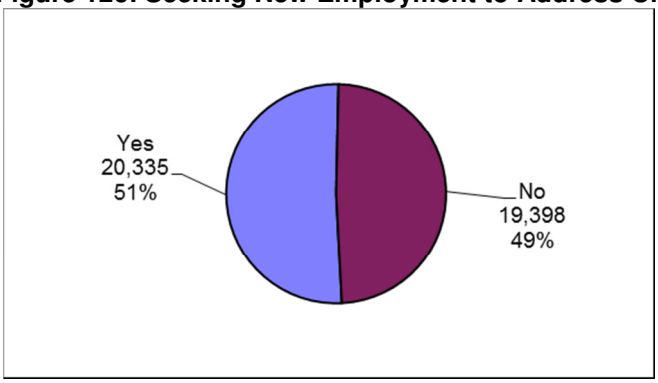
Comparing Figure 12b with Figure 2 (page 6) suggests that fewer professional workers but more general laborers consider themselves underemployed. Figure 2 shows that the subset of working Available Labor Pool members consists of 23% general laborers, 13% highly skilled-laborers, 46% service workers and 18% professionals.

Figure 12b: Occupational Sectors of Underemployed Workers



Underemployed respondents were asked if they were seeking new employment to address underemployment status. Figure 12c suggests that many – 51% (or 20,335 individuals) – of the underemployed workers answered "yes" to this question.

Figure 12c: Seeking New Employment to Address Underemployment



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

The Docking Institute of Public Affairs conducted a similar labor studies in the West Central Missouri Region and provided reports in 2005, 2009, and 2012. This section of the report compares some of the data collected from all four studies.

Table 6 shows population, Civilian Labor Force (CLF), employment, unemployment rate, and Available Labor Pool data presented in the 2005, 2009, 2012, and 2015 reports.

The population of the West Central Missouri Region has increased from 444,308 to 528,679 (or by 84,371 individuals) in the ten years since the first labor study. The Civilian Labor Force increased from 227,279 to 256,020, and the number of employed individuals has increased from 214,532 to 239,273. The unemployment rate has fluctuated between 5.80% and 9.70%, and is now about 6.5%.

The Available Labor Pools in 2005, 2009, 2012, and 2015. The Pool increased by 3,416 between 2005 and 2009, by 20,126 between 2009 and 2012, and by 13,685 between 2012 and 2015.

Table 6: Key Population and Employment Indicators

West Central Missouri Region

	2005 Report	2009 Report	2012 Report	2015 Report
Region Population	444,308	491,086	511,627	528,679
Civilian Labor Force (CLF)	227,279	245,925	246,603	256,020
Employed	214,532	230,619	222,708	239,273
Average Unemployment Rate	5.80%	6.50%	9.70%	6.54%
Available Labor Pool	126,278	129,694	149,840	163,525

Figure 13 shows that there is a much larger proportion of *non-employed* Available Labor Pool members *available for full-time employment* in 2012 than in 2005, 2009, and 2015. The 2015 Pool has a similar structure to the 2005 Pool, suggesting the recent recession affected the 2009 and 2012 Pools.

Figure 13: Available Labor Pool Comparison

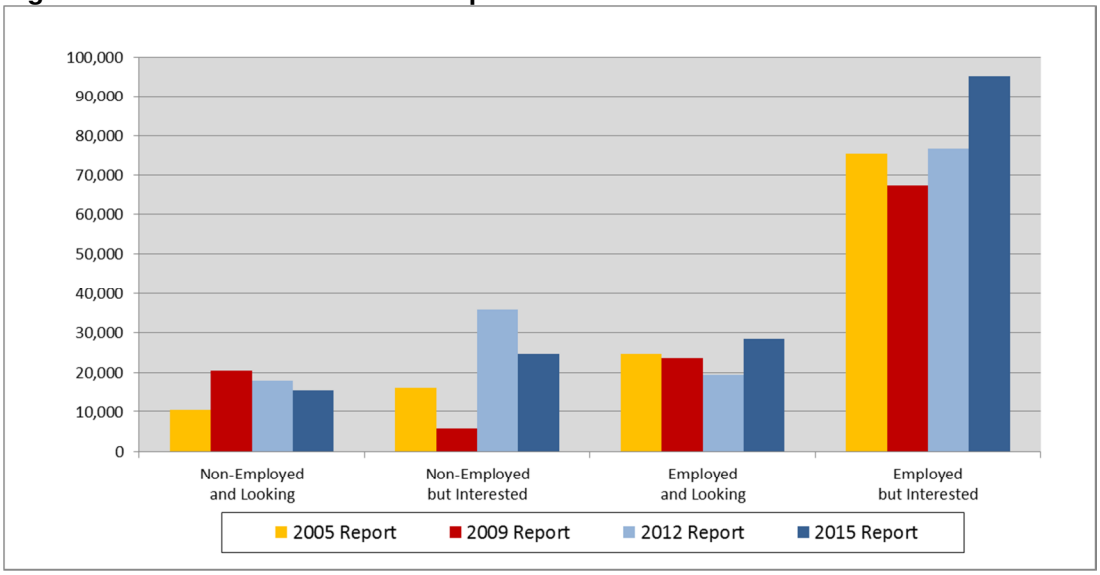


Table 7 compares occupational sectors and education levels from the four studies. The 2012 Pool stands out with a higher percentage of non-working pool members. However, the 2015 Pool contains a higher percentage of high skill laborers than the other three Pools. The 2009 and 2015 Pools compare in that about a third of both Pools are service sector workers.

The 2015 Pool seems to have a higher percentage of educated workers, with a third holding at least a bachelor's degree, compared to 25.1% (2005), 28.7% (2009) and 27.8% (2012).

Table 7: Available Labor Pool Occupational Sectors and Education Levels Comparison

	2005 Report			2009 Report			2012 Report			2015 Report		
Occupational Sector												
	Number	Percent		Number	Percent		Number	Percent		Number	Percent	
General Labor	27,758	22.0		26,214	20.2		21,744	14.5		28,042	17.1	
High Skill Labor	8,899	7.0		11,355	8.8		11,253	7.5		16,525	10.1	
Service Sector	34,666	27.5		43,157	33.3		42,351	28.3		56,284	34.4	
Professional	28,980	22.9		21,445	16.5		21,288	14.2		22,501	13.8	
Non-Working	25,975	20.6		27,523	21.2		53,203	35.5		40,173	24.6	
Total	***126,278***	***100***		***129,694***	***100***		***149,839***	***100***		***163,525***	***100***	
Highest Education			Cumulative			Cumulative			Cumulative			Cumulative
	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent
Doctoral Degree	809	0.6	0.6	2,558	2.0	2.0	2,680	1.8	1.8	2,376	1.5	1.5
Masters Degree	11,368	9.0	9.6	12,286	9.5	11.4	15,998	10.7	12.5	18,156	11.1	12.6
Bachelors Degree	19,537	15.5	25.1	22,372	17.2	28.7	23,048	15.4	27.8	33,392	20.4	33.0
Associates Degree	11,464	9.1	34.2	11,999	9.3	37.9	21,075	14.1	41.9	21,044	12.9	45.8
Some College	36,634	29.0	63.2	39,793	30.7	68.6	31,944	21.3	63.2	37,315	22.8	68.7
High School Diploma	39,687	31.4	94.6	34,645	26.7	95.3	46,159	30.8	94.0	44,281	27.1	95.7
Less HS Diploma	6,779	5.4	***100***	6,040	4.7	***100***	8,936	6.0	***100***	6,961	4.3	***100***
Total	***126,278***	***100.0***		***129,693***	***100.0***		***149,840***	***100.0***		***163,525***	***100.0***	

Table 8 shows that the percentage of Pool members willing to take a job outside of their primary field dipped a bit from 2012 to 2015. Slightly smaller percentages in 2015 are willing to work a second shift, weekends, and rotating shifts, compared to the 2012 Pool. However, the difference between Pool members willing to work a second shift and/or weekends in 2015 is negligible.

Table 8: Considerations for Employment 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?	109,862	87.0	108,035	83.3	126,611	84.5	130,394	79.7
Will Work 2nd or Night Shift?	n/a	n/a	72,110	55.6	85,409	57.0	89,285	54.6
Will Work Weekends?	n/a	n/a	70,813	54.6	84,360	56.3	88,794	54.3
Will Work Rotating Shifts?	n/a	n/a	53,693	41.4	70,425	47.0	70,152	42.9

Figure 14 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 is more dramatic in the 2012 study.

About 83% of the 2012 Pool is willing to commute up to 30 minutes one way for a job, while only 45% are willing to commute up to 35 minutes one way for a job. This contrasts with the 2009 and 2015 Pools in which 87% and 89%, respectively, will commute up to 30 minutes for a job and 58% and 57%, respectively, will commute up to 35 minutes for a job.

Figure 14: Available Labor by Commute Minutes Comparison

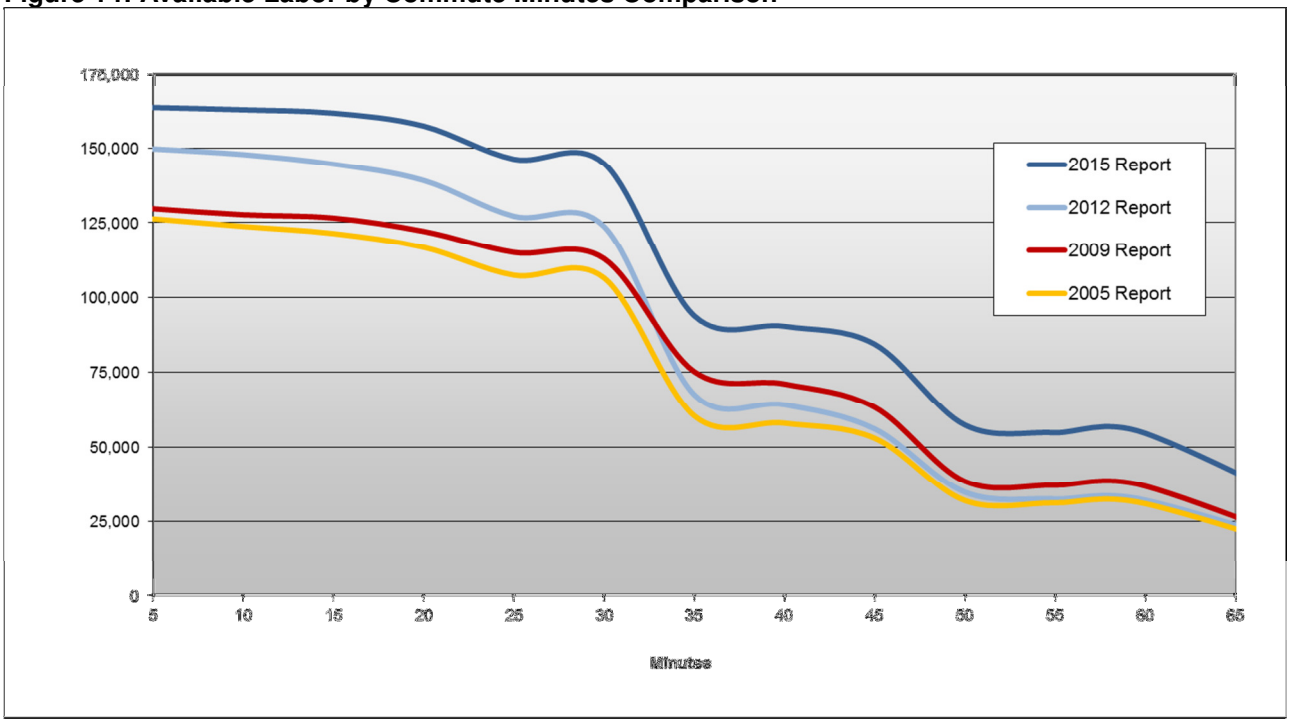


Table 9 shows desired benefits to take a new or a different job for each labor study, ranked in order by 2015 data. The table shows that “good salary/hourly pay” is the most important benefit in 2009, 2012, and 2015, but “on-the-job training” ranked highest in 2005.

The items of greatest change between 2012 and 2015 is “good vacation benefits,” with 74% indicating this was a very important benefit in 2012 but 83.2% considering it a very important benefit in 2015. Alternatively, “travel assistance to work” decreased in importance by 6.4% between 2012 and 2015.

Table 9: Important Benefits to Change Employment Comparison

	2005 Report	2009 Report	2012 Report	2015 Report	
(Ranked by 2015 Report)		*Percent Responding "Yes"*			*Change '15-'12*
Good Salary or Hourly Wage	81.9	88.8	83.1	88.0	*4.9*
Good Retirement Benefits	86.7	84.7	81.8	84.5	*2.7*
Good Health Benefits	87.3	87.3	82.3	83.4	*1.1*
Good Vacation Benefits	78.9	79.3	74.0	83.2	*9.2*
OJT or Paid Training	88.0	86.7	81.0	82.4	*1.4*
Flexible Hours or Flex-Time	69.7	70.6	66.3	73.7	*7.4*
Good Educational Assistance	64.8	52.2	50.2	51.9	*1.7*
Transportation Assistance to Work	n/a	33.0	33.2	26.8	*-6.4*

Figure 15 shows a comparison of the wage demands of the four study groups. The wage demand line shows that a larger proportion of the 2005 Pool were available for work in the lower dollar per hour range ($8 to $20 an hour or so) when compared to the latter Pools.

The remaining Pools follow similar patterns, although the 2009 Pool does not increase quite as much after $20 an hour.

Figure 15: Available Labor Pool by Hourly Wage Comparison

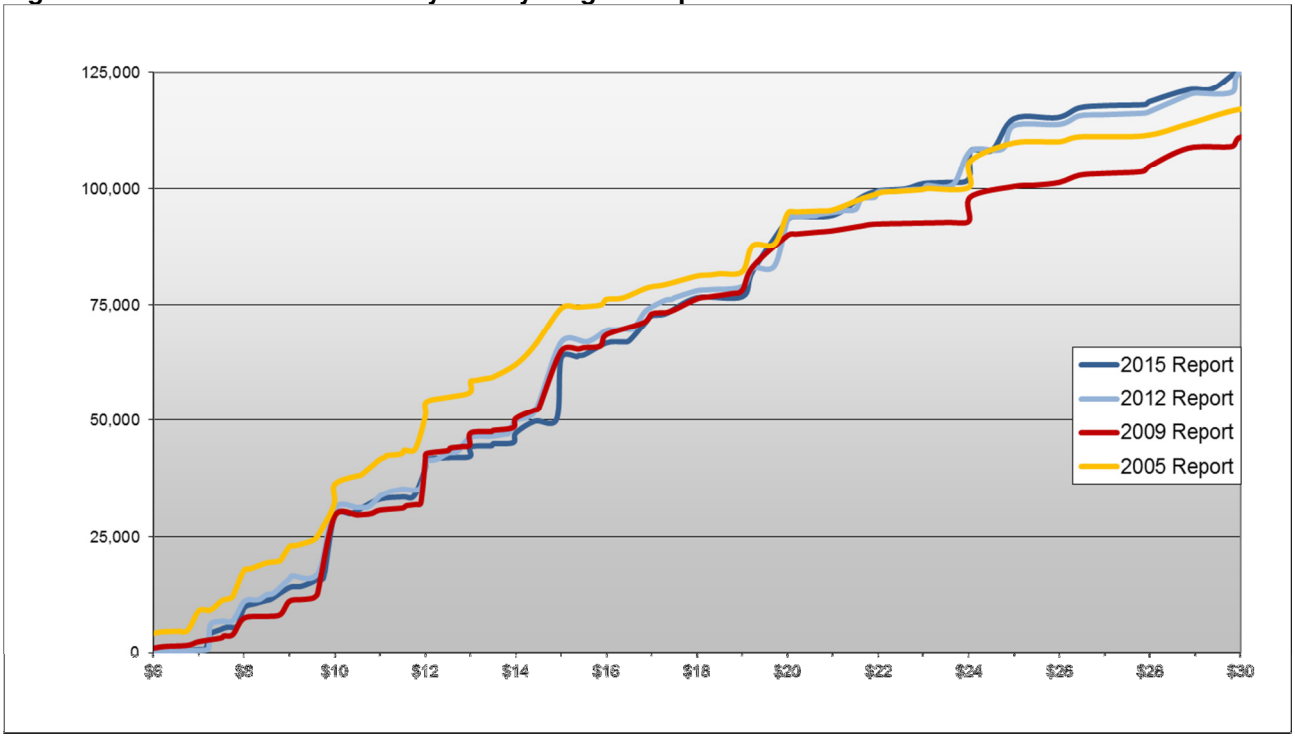


Table 10 shows a comparison of the underemployed members of the Available Labor Pools for 2005, 2009, 2012, and 2015.

The percentage of underemployed workers in 2005 (47.6%) is larger than in the other Pools primarily because the 2005 underemployment section included Available Labor Pool members seeking part-time employment. The underemployment sections in the 2009, 2012, and 2015 studies focused on respondents seeking full-time employment. The number of underemployed Pool members in larger in 2015 primarily because the size of the regional population has increased.

The percentages of underemployed workers by occupational sector are similar among all four studies, with some variation. For example, the percentage of underemployed service sector workers decreased from 46.3% in 2005 to 45.2% in 2009 but then increased to 52.8% in 2012, only to decrease again to 46.5% in 2015.

The percentage of underemployed professional sector employees was highest in 2005 (15.6%) but is lowest in 2015 (10.9%). The percentage of underemployed general laborers is highest in 2015 at 30.2%.

Examining the cumulative percentage columns in the educational attainment (Highest Education) section of the table shows that 45.8% of the underemployed workers in 2012 had at least associates degrees, while these percentages are lower for 2005 and 2009 (at 37.5% and 36.2%, respectively). However, 12.4% of the underemployed members of the 2015 pool hold master's degrees, at least. This percentage is higher than in the other three underemployed Pools.

Table 10: 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	100,303	79.4		91,189	77.6		96,637	64.5		123,352	75.4	
Underemployed Wrkrs	**47,822**	**47.6**		**29,183**	**32.0**		**30,924**	**32.0**		**39,733**	**32.2**	
Willing to Change Job to Address Status	41,755	87.3		24,602	84.3		25,760	83.3		20,335	51.2	
Occupational Sector												
	Number	Percent		Number	Percent		Number	Percent		Number	Percent	
General Labor	12,260	25.6		7,938	27.2		7,236	23.4		12,107	30.5	
High Skill Labor	5,965	12.5		3,794	13.0		3,185	10.3		4,889	12.3	
Service Sector	22,118	46.3		13,191	45.2		16,328	52.8		18,494	46.5	
Professional	7,479	15.6		4,261	14.6		4,175	13.5		4,243	10.7	
Total	***47,822***	***100***		***29,184***	***100***		***30,924***	***100***		***39,733***	***100***	
Highest Education			Cumulative			Cumulative			Cumulative			Cumulative
	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent	Number	Percent	Percent
Doctoral Degree	452	0.9	0.9	603	2.1	2.1	557	1.8	1.8	436	1.1	1.1
Masters Degree	3,853	8.1	9.0	1,776	6.1	8.2	2,474	8.0	9.8	4,494	11.3	12.4
Bachelors Degree	8,990	18.8	27.8	4,514	15.5	23.6	6,247	20.2	30.0	6,920	17.4	29.8
Associates Degree	4,654	9.7	37.5	3,683	12.6	36.2	4,886	15.8	45.8	5,962	15.0	44.8
Some College	14,625	30.6	68.1	9,054	31.0	67.3	7,669	24.8	70.6	9,510	23.9	68.8
High School Diploma	13,379	28.0	96.1	8,483	29.1	96.3	7,607	24.6	95.2	10,897	27.4	96.2
Less HS Diploma	1,869	3.9	***100***	1,069	3.7	***100***	1,484	4.8	***100***	1,514	3.8	***100***
Total	***47,822***	***100***		***29,182***	***100***		***30,924***	***100***		***39,733***	***100***	

Methodology

The West Central Missouri Region has a total population 528,679, and a Civilian Labor Force of 256,020. The average unemployment rate is 6.54%. The Docking Institute's analysis suggests that the basin contains an Available Labor Pool of 163,525 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 West Central Missouri Region, 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.[4]" The Available Labor Pool is composed of workers categorized as either 1) currently not working *and* looking for employment, 2) currently not working *but* interested in employment, 3) currently working *and* looking for other full-time employment, and 4) currently working and not looking, *but* interested in different employment for the right opportunities.

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

[4] 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).

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

then *restricted* to those workers who indicate they are looking for work or that are available for new employment. The advantage of this methodology is that it allows researchers to examine those members of the labor pool who have a propensity to consider a job opportunity given their employment expectations. Even with these restrictions, it should be noted that, in practice, not all members of the Available Labor Pool would apply for a new job opportunity. However, the Available Labor Pool figure for a labor basin reveals to current employers and potential employers better information about the quantity and quality of the labor pool than do Civilian Labor Force data and unemployment statistics. The Available Labor Pool for the West Central Missouri Region includes 163,525 individuals. This represents a substantial number of workers and potential workers for employers to draw upon in the West Central Missouri Region.

Description of Survey Research Methods

Data for the **2015 study** were collected from a random digit telephone survey of adults living in twenty 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.[6] Surveying took place from November 11, 2014 through the end of 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.[7] 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 the 1,466 cooperating and eligible respondents, 62% (or 803) indicated that they were available for new or different full-time employment and/or were looking for a new or different full-time job. This subgroup is considered the Available Labor Pool for the West Central Missouri Region. The margin of error for the Available Labor Pool is +/- 3.46%.

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

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[6] 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.

[7] 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 are the property of the Docking Institute.[8]

Data for the **2012 study** were collected using the same methods as described above. Surveying took place from July 28 to November 18, 2011, using a Computer Assisted Telephone Interviewing (CATI) system. A total of 4,379 households were successfully contacted during the data collection period, and a randomly selected adult in each was asked to participate in the study. In 2,219 households the selected adult agreed to be interviewed. This represents a cooperation rate of 51% and a margin of error of +/-2.08%.

Of the 1,407 cooperating and eligible respondents, 50% (or 703) indicated that they were available for new or different full-time employment and/or were looking for a new or different full-time job. This subgroup is considered the Available Labor Pool for the West Central Missouri Region. The margin of error for the Available Labor Pool is +/- 3.70%.

Data for the **2009 study** were collected using the same methods as described above. Surveying took place from October 14 to December 15, 2008, using a Computer Assisted Telephone Interviewing (CATI) system. A total of 4,247 households were successfully contacted during the data collection period, and a randomly selected adult in each was asked to participate in the study. In 2,361 households the selected adult agreed to be interviewed. This represents a cooperation rate of 59% and a margin of error of +/-2.1%.

Of the 1,177 cooperating and eligible respondents, 37.5% (or 446) indicated that they were available for new or different full-time employment and/or were looking for a new or different full-time job. This subgroup is considered the Available Labor Pool for the West Central Missouri Region. The margin of error for the Available Labor Pool is +/- 4.6%.

Data for the **2005 study** were collected from a random digit telephone survey of adults living in 17 counties (Bates, St. Clair, Hickory, and Camden were not added until the 2009 study). Surveying took place from June 20, 2005 to August 4, 2005, using the same CATI system. A total of 3,061 households were successfully contacted during the data collection period, and a randomly selected adult in 1,864 household agreed to be interviewed. The cooperation rate for the 2005 study was 61%, with a margin of error of +/-2.27%.

Of the 1,149 cooperating and eligible respondents, 49% (or 573) indicated that they were available for new or different full-time employment and/or were looking for a new or different full-time job. This subgroup is considered the Available Labor Pool for the West Central Missouri Region in 2005. The margin of error for the 2005 Available Labor Pool is +/-4.09%.

[8] 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

West Central Missouri Labor Region – The West Central Missouri Labor Region includes Bates, Benton, Caldwell, Carroll, Cass, Chariton, Cooper, Henry, Hickory, Howard, Johnson, Lafayette, Moniteau, Morgan, Pettis, Ray, Saline, and St. Clair Counties in Missouri, plus portions of Clay and Jackson Counties east of Kansas City.

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 difference job given the right opportunities, 3) employed (full- or part-time) *and* looking for other full-time employment, and 4) currently employed and not looking, *but* interested in different employment given the right opportunities.

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

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

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

Job Sectors – "Job sectors" include (with examples shown):

> ***General Labor*** includes occupations such as cleaning, construction, delivery and maintenance.
> ***High-Skill Blue Collar*** includes occupations such as police, fire-fighting, postal worker, welder, high-skilled mechanics, welder, computer technician and lab technician.
> ***Service Sector*** includes occupations such as clerical worker, waitress, retail sales clerk, bookkeeper, para-professional, certified nurse's assistant, nurse, teacher and small business manager.
> ***Professional White Collar*** includes occupations such as administrator, business executive, professional salesperson, doctor, lawyer, professor and engineer.

Appendix: Hourly Wage to Annual Salary Conversion Chart

Hourly Wage	Annual Salary
$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

Hourly Wage	Annual Salary
$30.00	$62,400
$30.50	$63,440
$31.00	$64,480
$31.50	$65,520
$32.00	$66,560
$32.50	$67,600
$33.00	$68,640
$33.50	$69,680
$34.00	$70,720
$34.50	$71,760
$35.00	$72,800
$35.50	$73,840
$36.00	$74,880
$36.50	$75,920
$37.00	$76,960
$37.50	$78,000
$38.00	$79,040
$38.50	$80,080
$39.00	$81,120
$39.50	$82,160
$40.00	$83,200
$40.50	$84,240
$41.00	$85,280
$41.50	$86,320
$42.00	$87,360
$42.50	$88,400
$43.00	$89,440
$43.50	$90,480
$44.00	$91,520
$44.50	$92,560
$45.00	$93,600
$45.50	$94,640
$46.00	$95,680
$46.50	$96,720
$47.00	$97,760
$47.50	$98,800
$48.00	$99,840
$48.50	$100,880
$49.00	$101,920
$49.50	$102,960
$50.00	$104,000