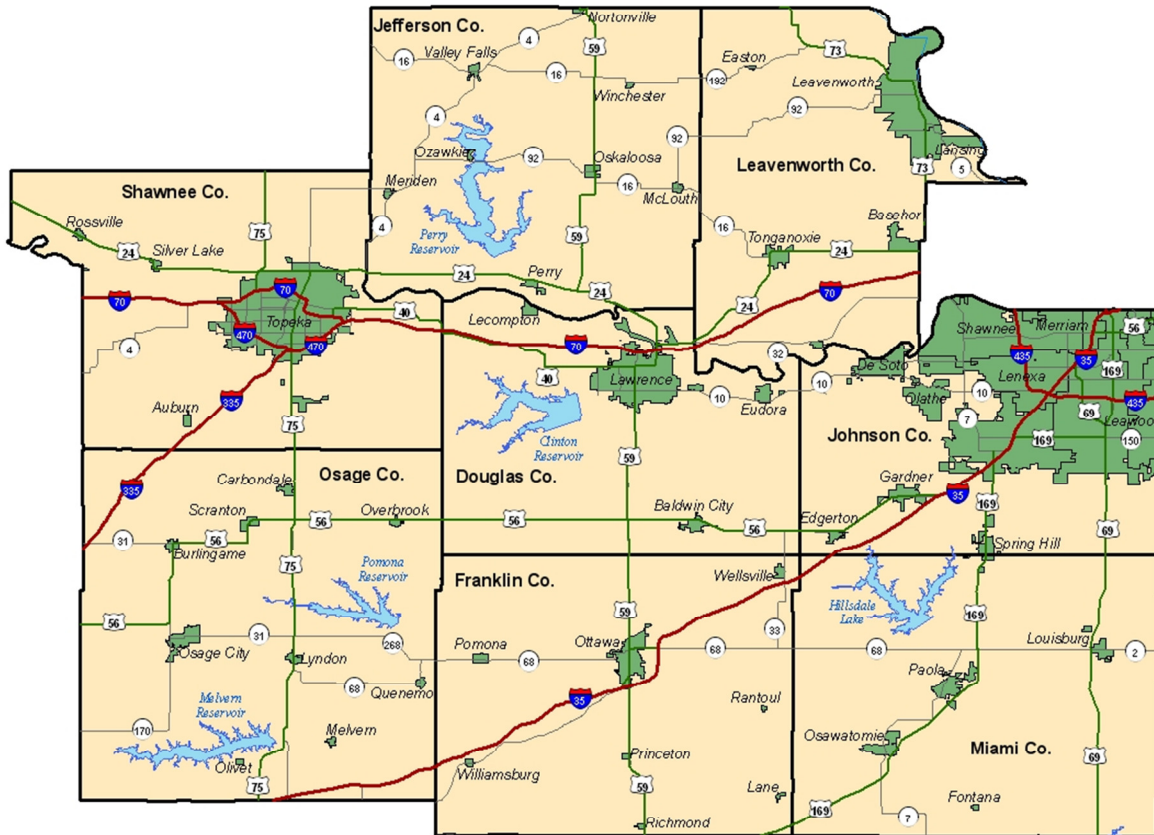


Lawrence Kansas Labor Basin Labor Availability Analysis – 2012

Douglas • Franklin • Jefferson • Johnson •
Leavenworth • Miami • Osage • Shawnee Counties



Prepared For

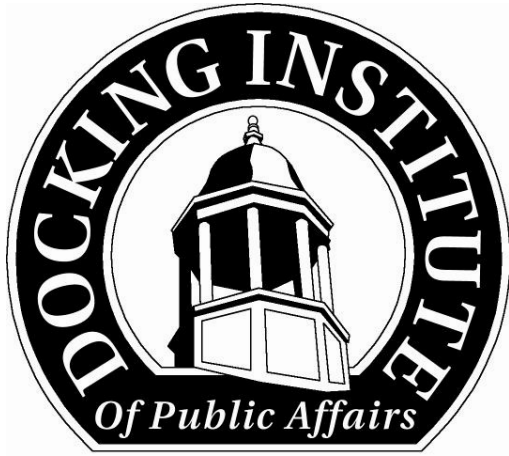
Lawrence KS Chamber of Commerce

By

The Docking Institute of Public Affairs

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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

Lynette Boys
Administrative Specialist

Catherine Rockey
Survey Center Manager

Mission:

To Facilitate Effective Public Policy Decision-Making.

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Lawrence Kansas Labor Basin Labor Availability Analysis - 2012

Prepared By:

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

Prepared For:

Lawrence KS Chamber of Commerce

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Glossary of Terms

Lawrence Kansas Labor Basin – The Lawrence Kansas Labor Basin includes Douglas, Franklin, Jefferson, Johnson, Leavenworth, Miami, Osage and Shawnee Counties in Kansas.

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

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

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 offered a yearly salary instead of an hourly wage, the yearly salary was divided by 2,080 to convert the salary to an hourly wage.

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

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

Willing to Commute Available Labor Pool – The “willing to commute Available Labor Pool” is a subset of the Available Labor Pool that are willing to commute the necessary travel time for a new or different full-time job.

Underemployment – Individuals that perceive themselves as possessing skills and/or education/training levels that exceed the responsibilities of their current job and/or that have earned higher wages at a previous similar job and/or that cannot work full-time hours are considered underemployed.

Job Sectors – “Job sectors” include General Labor, High-Skilled Blue Collar, Service Sector, and Professional White Collar. Examples of each include:

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

Willing to Work in Lawrence – Members of the Available Labor Pool currently residing in areas outside of Lawrence but willing to work in Lawrence.

Inflow and Outflow – Employed members of the Available Labor Pool residing outside of Lawrence but working in Lawrence (Inflow) and residing in Lawrence but working in areas outside of Lawrence (Outflow).

Lawrence Kansas Labor Basin Labor Availability Analysis

Executive Summary

The Lawrence Kansas Labor Basin includes Douglas, Franklin, Jefferson, Johnson, Leavenworth, Miami, Osage and Shawnee Counties in Kansas. 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 full-time employment or would consider changing their jobs for the right opportunities.

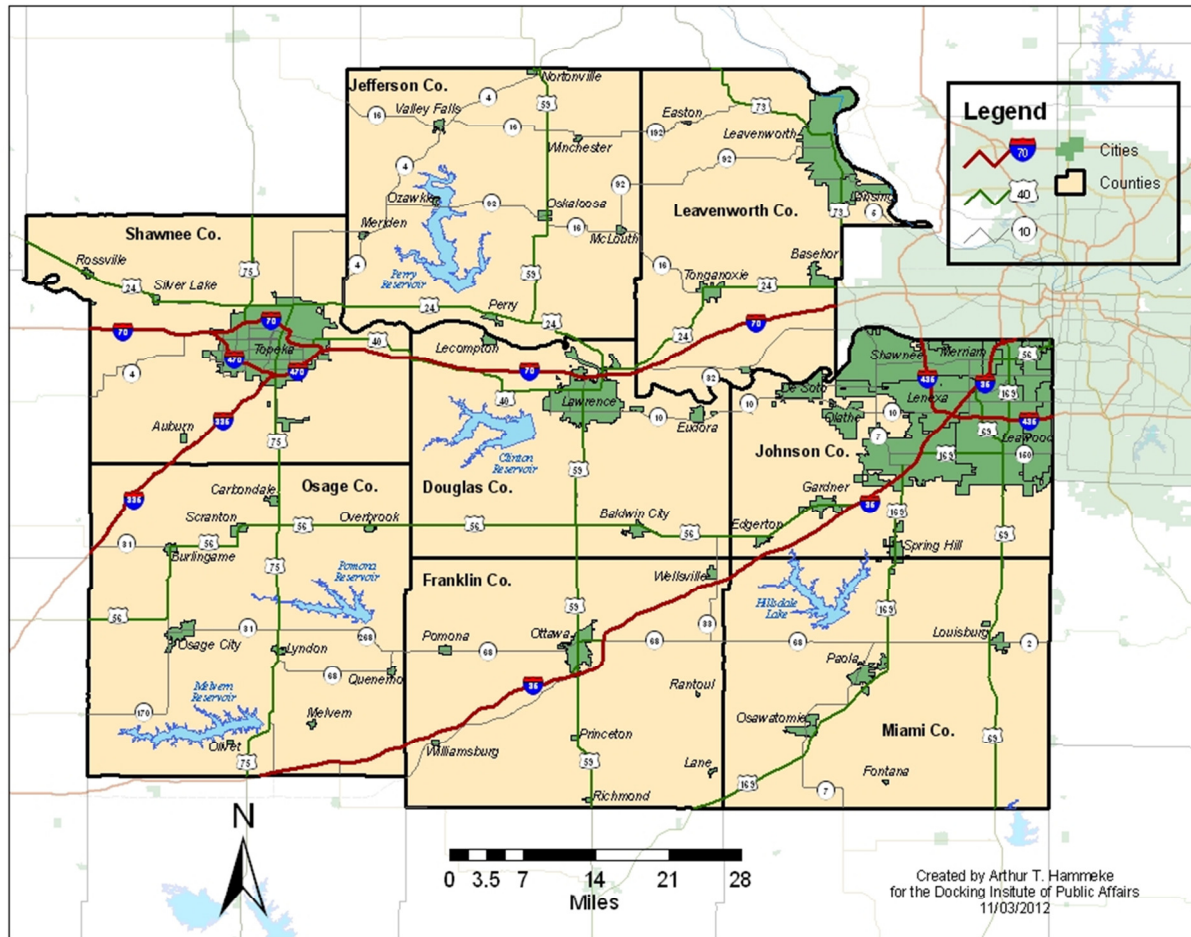
The Docking Institute’s independent analysis of this labor basin shows that:

- The population of the Lawrence Kansas Labor Basin is estimated to be 1,015,212. The Civilian Labor Force (CLF) is estimated to be 531,316. The Institute estimates that 243,055 individuals are considered to be part of the Available Labor Pool.
- Of the Available Labor Pool, an estimated 16,679 (6.9%) non-working and 41,096 (16.9%) working individuals are *looking* for new full-time employment, while 49,454 (20.3%) non-working and 135,826 (55.9%) working individuals would *consider* new and/or different full-time employment for the right opportunities.
- More than 80% of the Available Labor Pool has at least some college experience and almost all (99.4%) 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 51.7% of the Available Labor Pool.
- An estimated 24,840 (10.2%) members of the Available Labor Pool currently work in general labor occupations (such as cleaning, construction, delivery and maintenance), while an additional 22,733 (9.4%) work in government services occupations (such as police and fire) or technical/high skill blue collar occupations (such as welder and lab technician).
- An estimated 73,324 (30.2%) members of the Available Labor Pool currently work in service sector occupations (such as clerical worker, retail sales clerk, certified nurse’s assistant, small business manager), while an additional 56,024 (23.1%) work in white-collar professional occupations (such as administrator, doctor, teacher and professional sales).
- More than three-fourths (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.”
- Almost a third (31%) of the members of the Available Labor Pool will commute up to 45 minutes, one way, for an employment opportunity. Almost 81% will commute up to 30 minutes for work.
- The four most important desired benefits for a new job are good salary/hourly pay, good vacation benefits, on-the-job (OJT) or paid training and good health benefits.
- An estimated 73,366 people (30.2%) are interested in a new job at \$15 an hour, 41,172 (16.9%) are interested at \$12 an hour and 8,938 (3.7%) are interested at \$9 an hour.
- Of the 176,922 members in the subset of *employed members* of the Available Labor Pool, 46,707 (26.4%) consider themselves underemployed.
- An estimated 215,979 members of the Available Labor Pool *reside outside of Lawrence* and 70.3% (153,239 individuals) are willing to work in Lawrence.
- An estimated 8,699 *employed members* of the Available Labor Pool reside outside of Lawrence but travel to Lawrence for work, and 5,681 reside in Lawrence but travel outside for work.

The Lawrence Kansas Labor Basin

The Lawrence Kansas Labor Basin includes Douglas, Franklin, Jefferson, Johnson, Leavenworth, Miami, Osage and Shawnee Counties in Kansas. (See Map 1 below).

Map 1: Lawrence Kansas Labor Basin



The Lawrence Kansas Labor Basin has an estimated total population of 1,015,212 and a Civilian Labor Force (CLF) of 531,316. There was an official unemployment rate of about 6% at the time of the study, and this research suggests that there is a good supply of available labor for a new employer and/or for an employer desiring to expand employment.

The Docking Institute's analysis suggests that the basin contains an Available Labor Pool of 243,055 individuals. The Available Labor Pool is composed of workers categorized as either 1) currently not working *but* looking for full-time employment, 2) currently employed (full- or part-time) *and* looking for other full-time employment, 3) currently not working in any manner *but* willing to consider full-time employment for the *right opportunity* and 4) currently employed and not looking, *but* willing to consider different full-time employment for the *right opportunity*. See the Research Methods section – page 42 – for more information about the Institute's Available Labor Pool analysis methodology and the survey research methods used for this study.

The Lawrence Kansas Labor Basin's Available Labor Pool

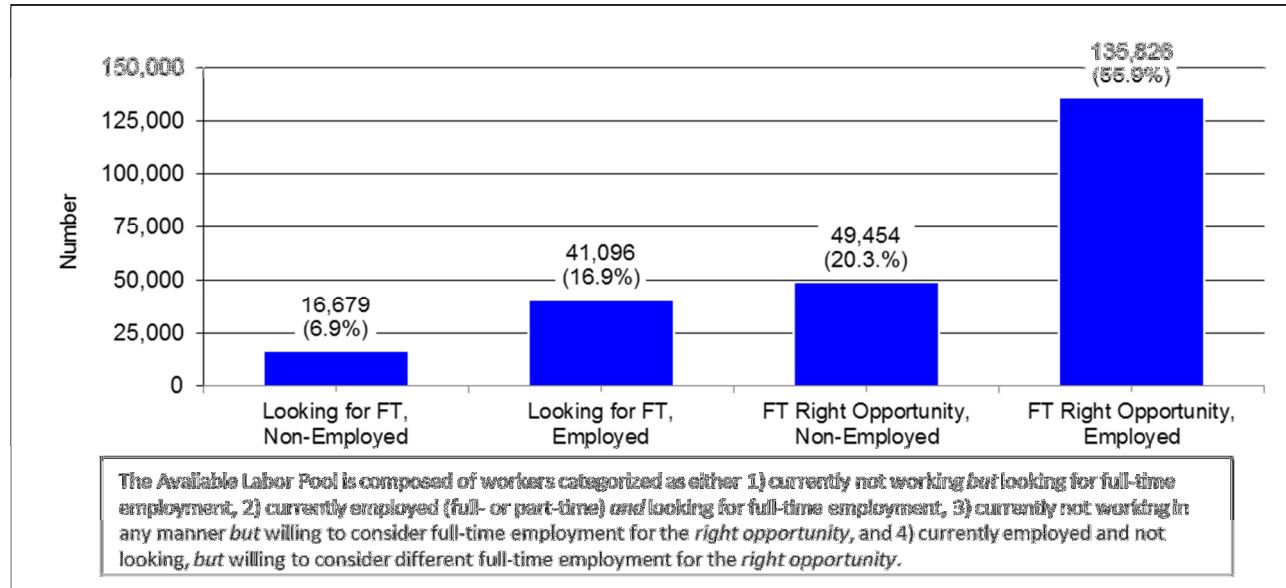
This section of the report assesses the characteristics of the Available Labor Pool in the Lawrence Kansas Labor Basin by answering these questions:

- What proportion of the labor force – employed, unemployed, homemaker, student, retired and disabled – would seriously consider applying for a new full-time employment opportunity?
- What skills do those who would consider a new employment opportunity have?
- What type 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 are some of the characteristics of the general laborers, skilled 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?
- What proportion of the employed Available Labor Pool is considered “underemployed“?
- What are some of the characteristics of those underemployed workers?
- How many members of the Available Labor Pool currently residing outside of Lawrence would consider working in Lawrence?
- What are some of the characteristics of pool members willing to work in Lawrence?
- How many Available Labor Pool workers reside in other areas of the labor basin but travel to Lawrence for work (Inflow)? How many Available Labor Pool workers reside in Lawrence but travel to other areas of the basin for work (Outflow)?
- What are some of the characteristics of the Inflow and Outflow workers?

It is estimated that 16,679 (6.9% of the Available Labor Pool) non-employed¹ and 41,096 (16.9%) employed individuals are *currently looking* for new or different full-time employment, and 49,454 (20.3%) non-employed individuals and 135,826 (55.9%) employed individuals *would consider* new or different full-time employment for the right opportunities.

Not surprisingly, the largest group among Available Labor Pool members consists of those already employed but available for other full-time work given the right opportunities. This is consistent with research suggesting that most available workers are currently employed. The percentage of non-employed members of the Available Labor Pool looking for full-time work (6.9%) is a bit smaller than other recent available labor studies conducted by the Docking Institute. Additionally, the percentage of non-employed members of the pool available for full-time work given the right opportunities (20.3%) is a bit larger than other recent studies. It is speculated that, given the length of the recent economic down-turn, many non-working pool members have given up actively looking for full-time work but are available for such work, given the right opportunities.

Figure 1: The Available Labor Pool for the Lawrence Kansas Labor Basin



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 in the basin compares to all other zip codes in terms of the percent of total available labor in the Lawrence Kansas Labor Basin. Each zip code is grouped into one of five categories specified in the legend. The large portions of the Available Labor Pool are located in zip code areas in Johnson County, although zip code areas in all counties in the basin hold members of the Available Labor Pool.

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

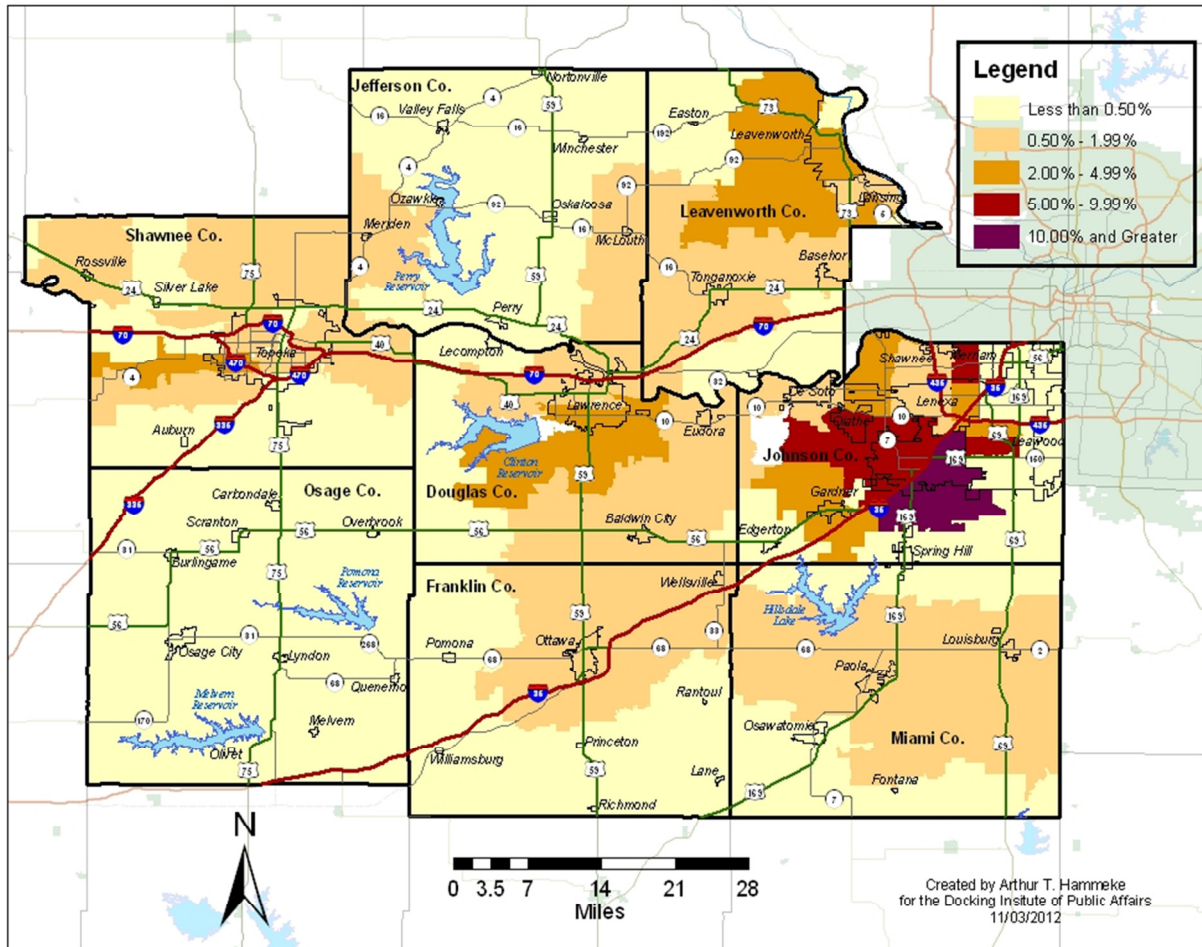


Table 1 shows the gender, age and education levels of the 243,055-member Available Labor Pool. Slightly more than half (51.7%) are women, and the average age is about 45 years old. Additionally, a quarter (26.8%) speaks at least some Spanish, though most of those respondents (88.8%) speak “only a little.”

Almost all (99.4%) have at least a high school diploma, more than four-fifths (83%) has at least some college education and about half (50.4%) has at least a bachelor’s degree.

The reported highest level of education in the Lawrence Labor Basin is higher than other recent labor basin studies conducted by the Docking Institute in other parts of Kansas, Missouri and Nebraska. This is possibly due to the many educational institutions located in the labor basin, as well as an emphasis on educational attainment in the area.

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

Age	Age in 2012		
Range	18 to 76		
Average	44		
Median	45		
Gender	Number	Percent	
Female	125,659	51.7	
Male	117,395	48.3	
Extrapolated Total	243,055	100	
Highest Level of Education Achieved	Number	Percent	Cumulative Percent
Doctoral Degree	3,949	1.6	1.6
Masters Degree	51,266	21.1	22.7
Bachelors Degree	67,175	27.6	50.4
Associates Degree	25,760	10.6	61.0
Some College (including current students)	53,629	22.1	83.0
High School Diploma	39,774	16.4	99.4
Less HS Diploma	1,502	0.6	100
Extrapolated Total	243,055	100	
"Do you speak Spanish?"	Number	Percent	
"Yes"	65,139	26.8	
<i>Speak Very Well</i>	521	0.8	} <i>These percentages represent portions of 26.8%</i>
<i>Speak Fairly Well</i>	6,774	10.4	
<i>Speak Only a Little</i>	57,843	88.8	
		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 243,055-member Available Labor Pool. General labor occupations represent 10.2% of the entire pool, while high-skilled blue-collar jobs make up 9.4%. Traditional service-related occupations represent 30.2% of the available labor, while professional occupations represent 23.1% of the Available Labor Pool.

High skilled laborers typically comprise the smallest labor sector in any labor basin, and service workers typically comprise the largest. The percentage of profession workers in the Lawrence Labor Basin is a bit larger than other recent studies conducted by the Docking Institute. This percentage is generally under 20%. The percentage of general laborers is also smaller than other studies. This percentage is generally between 15% to 17%; larger in more rural areas.

Table 2: Major Occupational Categories of Available Labor

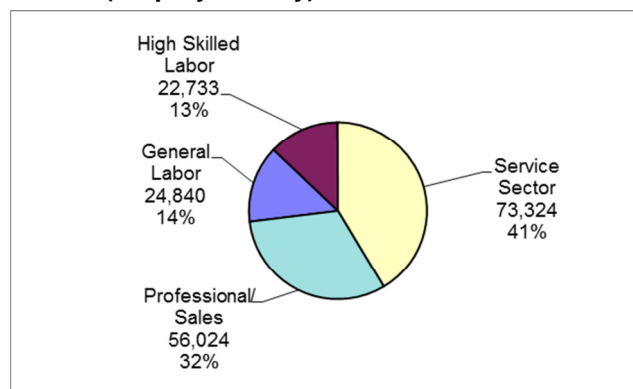
	Number	Percent	Years at Job	
			Mean	Median
General Labor/Cleaning/Farm Labor/Delivery Maintenance/Factory Work	14,158	5.8	8.2	5.0
Trucking/Heavy Equipment Operation	9,162	3.8	12.0	11.0
	1,520	0.6	6.7	7.8
Total General Labor	24,840	10.2	9.0	7.9
Govt Service/Protective Service	1,976	0.8	15.1	16.9
Technician/Mechanic/Welder	20,756	8.5	11.1	10.0
Total High Skilled Labor	22,733	9.4	13.1	13.5
Customer Service/Receptionist/Food Service	12,848	5.3	5.7	3.0
Clerical/Secretarial	26,097	10.7	10.3	7.0
Social Service/Para-Professional/Nursing	17,944	7.4	11.4	11.0
Office Manager/Small Business Owner	16,435	6.8	9.9	7.6
Total Service Sector	73,324	30.2	9.3	7.1
Govt & Business Professional/Sales	26,690	11.0	13.3	14.5
Educator/Counselor/Doctor/Attorney	29,334	12.1	13.6	12.0
Total Professional	56,024	23.1	13.4	13.2
Homemakers/Unemployed	24,472	10.1	n/a	n/a
Students	2,495	1.0	n/a	n/a
Retired/Disabled	39,165	16.1	n/a	n/a
Total Non-Employed	66,133	27.2		
Extrapolated Total	243,055	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 only. The *percentages* shown in Figure 2 differ from those presented in Table 2 because the figure excludes non-working Available Labor Pool members. Appendix I provides a detailed list of occupations.

The percentage of professional workers among employed members of the Available Labor Pool is large compared to other basins.

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



Work Experiences

To gain perspective on the types of workers that are available for new and/or different full-time employment in the Lawrence Kansas Labor Basin, survey respondents were asked “open-ended” type questions assessing work skills and previous work experience. Responses were grouped into the 19 categories listed in Table 3.

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.

It is estimated, for example, that 7,660 members of the available labor in the Lawrence Kansas Labor Basin are currently employed in general labor, construction, cleaning and similar positions. An additional 3,892 Available Labor Pool members in the basin indicate previous employment experience or training in those or similar jobs, for a total of 11,552 individuals.

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

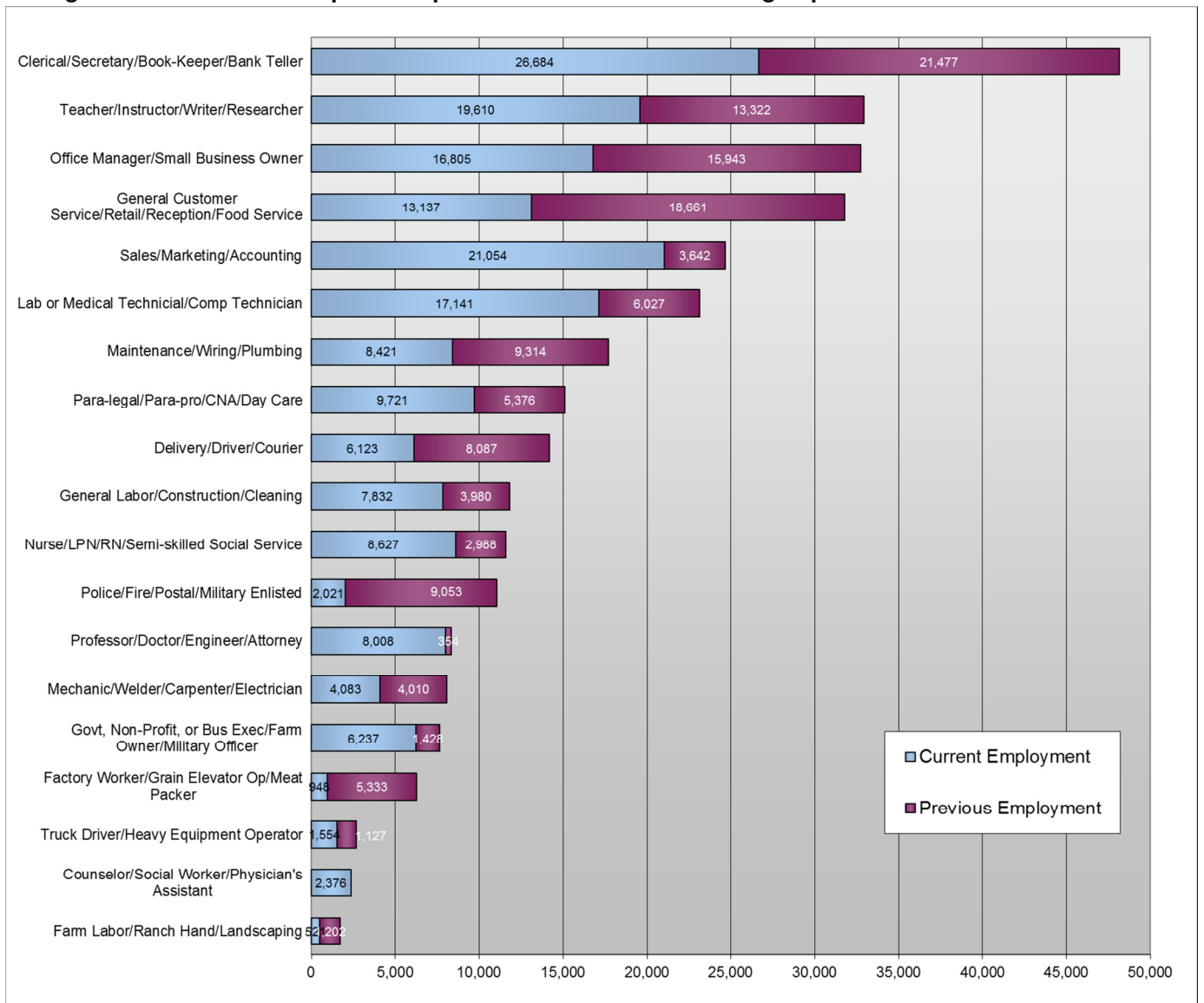
	Current	Previous	Current plus Previous
	Employment* Number	Work/Training* Number	Work or Training** Number
General Labor/Construction/Cleaning	7,660	3,892	11,552
Farm Labor/Ranch Hand/Landscaping	510	1,176	1,686
Delivery/Driver/Courier	5,988	7,909	13,898
Maintenance/Wiring/Plumbing	8,236	9,109	17,345
Factory Worker/Grain Elevator Op/Meat Packer	927	5,216	6,143
Truck Driver/Heavy Equipment Operator	1,520	1,102	2,622
Police/Fire/Postal/Military Enlisted	1,976	8,854	10,830
Lab or Medical Technical/Comp Technician	16,764	5,894	22,658
Mechanic/Welder/Carpenter/Electrician	3,993	3,922	7,915
General Customer Service/Retail/Reception/Food Service	12,848	18,250	31,098
Clerical/Secretary/Book-Keeper/Bank Teller	26,097	21,004	47,101
Para-legal/Para-pro/CNA/Day Care	9,507	5,258	14,765
Nurse/LPN/RN/Semi-skilled Social Service	8,437	2,922	11,359
Office Manager/Small Business Owner	16,435	15,592	32,027
Teacher/Instructor/Writer/Researcher	19,179	13,029	32,208
Sales/Marketing/Accounting	20,591	3,562	24,153
Govt, Non-Profit, or Bus Exec/Farm Owner/Military Officer	6,100	1,397	7,496
Counselor/Social Worker/Physician's Assistant	2,323	0	2,323
Professor/Doctor/Engineer/Attorney	7,832	346	8,178
Extrapolated Total	176,922	128,435	

* Retired, disabled, non-working students, homemakers are not included.
 ** An individual member of the ALP is counted only once within each employment 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 clerical workers, secretaries, book-keepers, bank tellers and similar positions. An estimated 26,684 working Available Labor Pool members are currently employed in this category and 21,477 other individuals have been previously employed or trained in this category, for a total of 47,101 individuals (total not shown in figure).

It is not surprising that clerical workers, secretaries, book-keepers, bank-tellers and similar positions make up a large portion of workers in this labor basin. These jobs are in high demand in areas with a large number of educational institutions and other professional offices. Often, this category or the general customer service, retail, reception, and food service worker category provides a large number of workers in a labor basin. What is unusual for the Lawrence Labor Basin (compared to others) is the number of teachers, instructors, writers and researchers, compared to other labor basins.

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



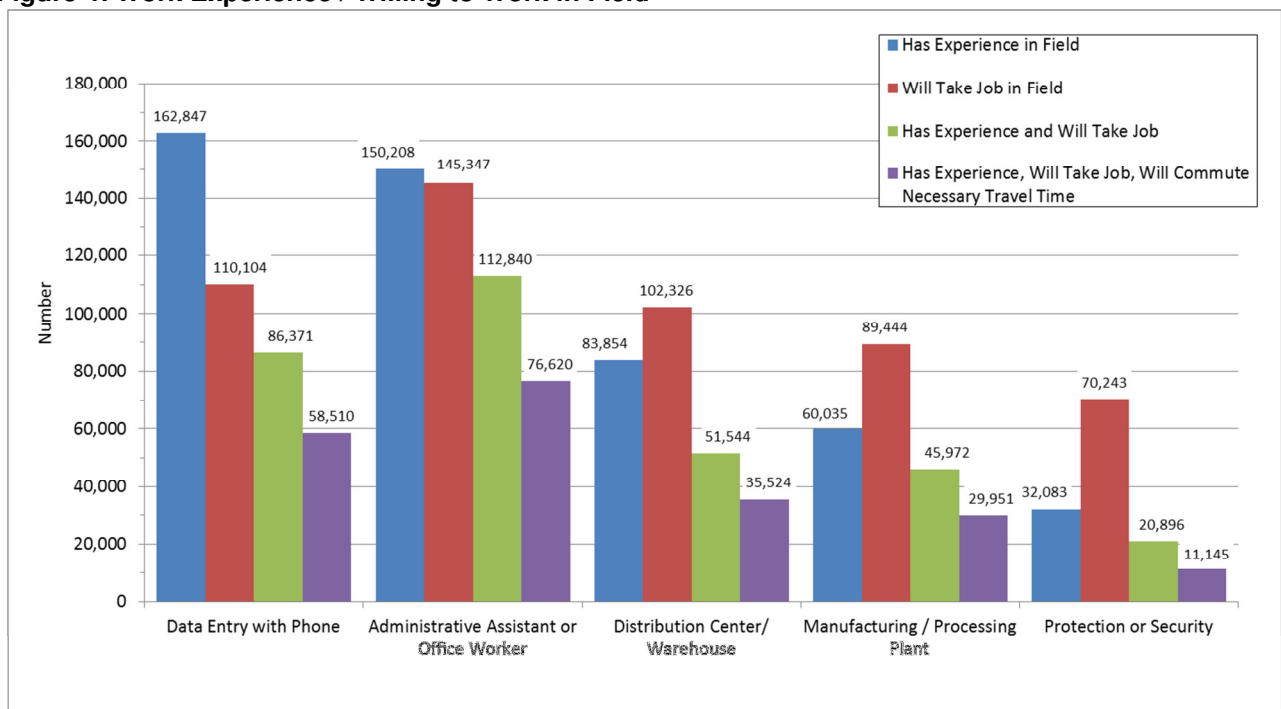
In addition to collecting data regarding the current employment status and previous work or training experience through a series of “open-ended” survey questions (the results of which are shown in the previous table and figure), respondents were asked about the five specific employment areas listed in 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 about an estimated 162,847 Available Labor Pool members report having training and/or experience in data entry with telephone operation, while fewer (110,104) would consider taking a job in that field. The figure also shows that an estimated 150,208 members of the Available Labor Pool report having training or experience in professional office environments as office workers or administrative assistants. Slightly fewer (145,347) indicate that they would take a job in that field.

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

The fourth column shows the estimated numbers that have training/experience **and** are willing to take a job in that field **and** are willing to commute the necessary travel time for a new or different job. (See page 24 for a definition of “necessary travel time.”)

Figure 4: Work Experience / Willing to Work in Field



The pattern shown in the Lawrence Labor Basin is generally consistent with other labor basins, with regard to the information provided in Figure 4. It is common to have more respondents indicate experience or training in data entry and phone operation than are willing to take a job in that field, while the other fields generally show the opposite pattern. That is, fewer people indicate that they have experience the other fields, while more indicate a willingness to work in those fields.

The Available Labor Pool in the Lawrence Labor Basin deviates from the usual pattern with regard to the administrative assistant/office worker field of employment. Unlike other recent labor basin studies, this study shows that more respondents have experience in that field than are willing to take a job in that field – although the difference is slight.

Survey respondents who said that they had worked in distribution or warehousing and manufacturing or processing were asked additional questions to assess the type of work they performed at those jobs. The following figures show the responses to those questions.

Almost a third (32%), for example, of those with experience in distribution has performed jobs in material moving and loading. About 20% has worked in jobs related to inventory control and scheduling. Almost half (48%) has worked in administration and management.

A little more than two-fifths (43%) of those with experience in manufacturing has worked in jobs related to production, fabrication or assembly. Slightly more than a fifth (21%) has worked in maintenance, shipping or receiving. About a third (36%) has worked in administration and management.

Figure 4a: Work Experience in Distribution or Warehousing

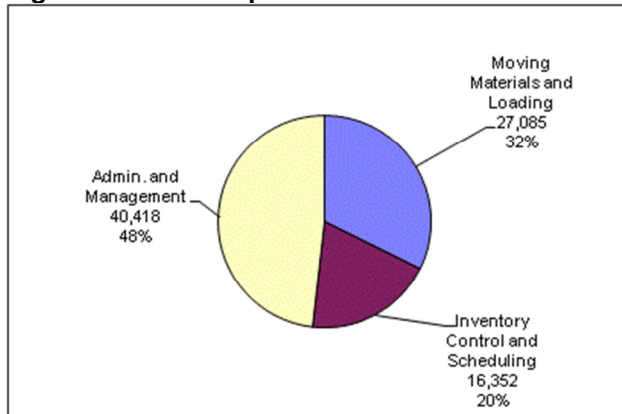
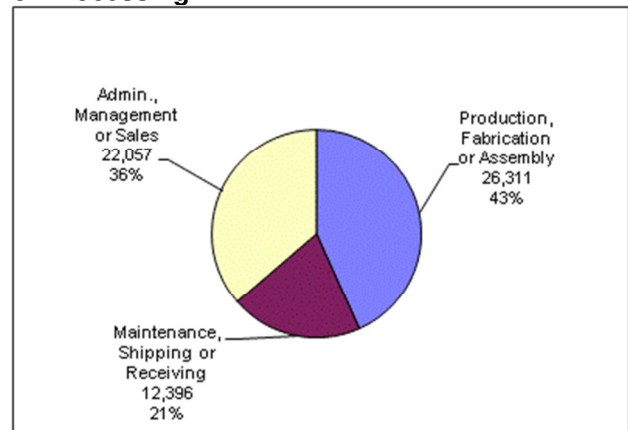
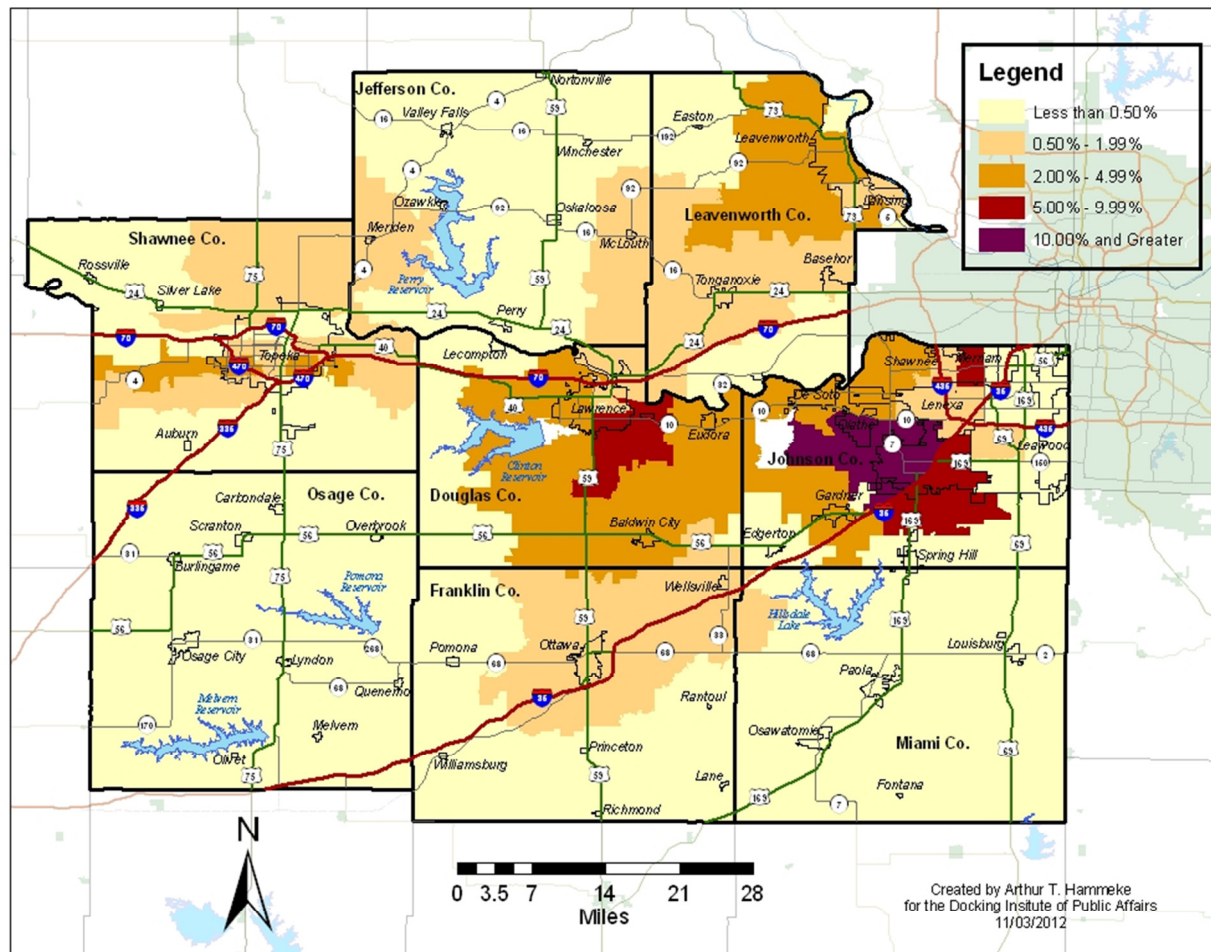


Figure 4b: Work Experience in Manufacturing or Processing



Working Available Labor Pool members were asked for the zip code of their workplaces. Map 3 shows the locations of employers within the basin by zip code area. Each zip code is grouped into one of five categories specified in the legend. Large portions of the workplaces are located in zip code areas in Douglas and Johnson Counties, although zip code areas in Leavenworth, Jefferson, Shawnee, Franklin and Miami counties in the basin contain employers where Available Labor Pool members currently work.

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 5a (right) shows that the largest group of Available Labor Pool members indicates a major in business and economics (33%). Education, physical sciences, and arts and humanities follow with 15%, 14% and 12%, respectively. The percentage of physical science majors is higher in this labor basin compared to other recent studies. This percentage is generally less than 10%.

Figure 5a: Undergraduate Field of Study

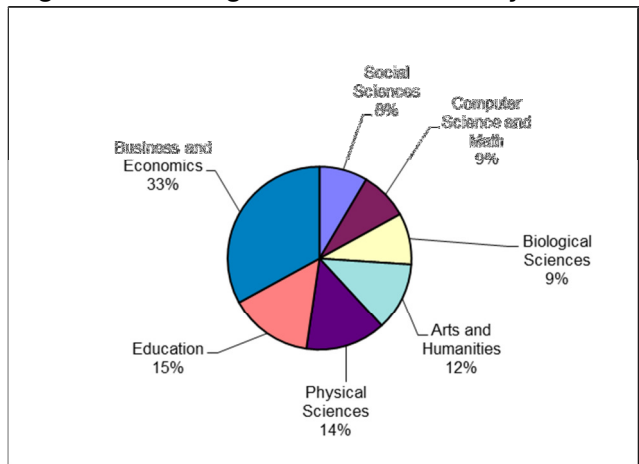


Figure 5b shows community college experience among Available Labor Pool members. A little more than a tenth (11%) has completed or is in the process of completing community college or technical school degrees.

Figure 5c shows the area of study for community college students. More than a quarter (29%) report studying information technology, while 25% have studied an office skills related field. Nearly a fifth report studying computer assisted design (CAD) or computer assisted manufacturing (CAM). The percentages of community college students (or graduates) with information technology and CAD or CAM training is much higher than in other labor basins. These percentages are generally lower than 5%.

Figure 5b: Community College Experience

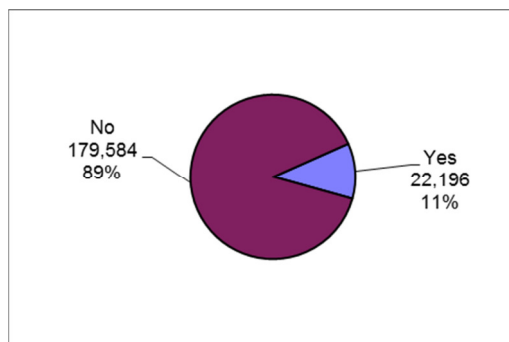
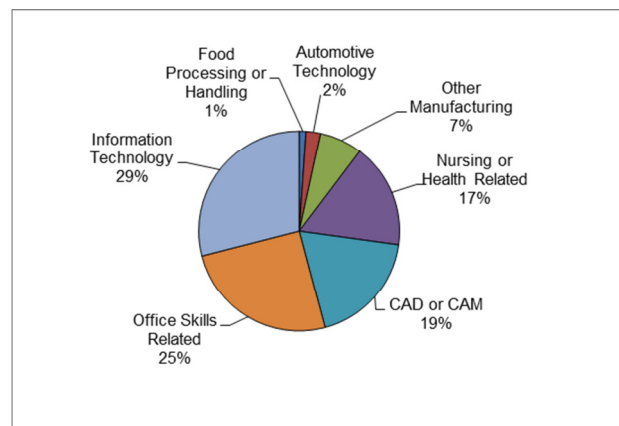


Figure 5c: Community College Study Area



Considerations for Employment

An important consideration for many employers looking to locate or expand operations in a labor basin 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 field of employment to a different field. A large percentage of those unwilling to change their jobs might limit the types of employers that may enter the labor basin.

This does not seem to be the case in the Lawrence Kansas Labor Basin. Figure 6 shows that of the 243,055 members of the Available Labor Pool, 79%, or an estimated 193,847, are willing to accept positions outside of their primary fields of employment. This percentage compares very favorably with pools from other basins.

Figure 6: Considerations for Employment

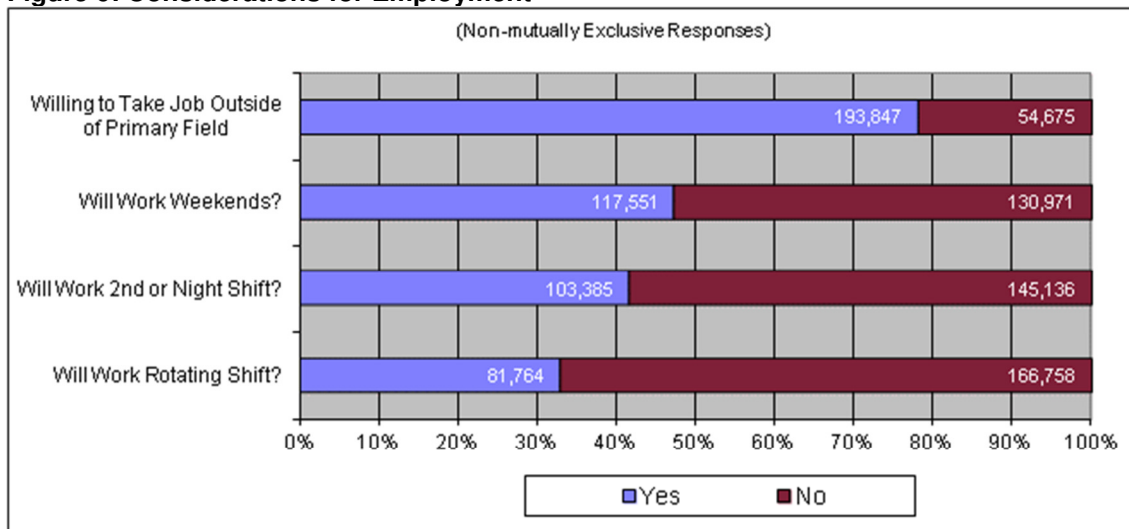


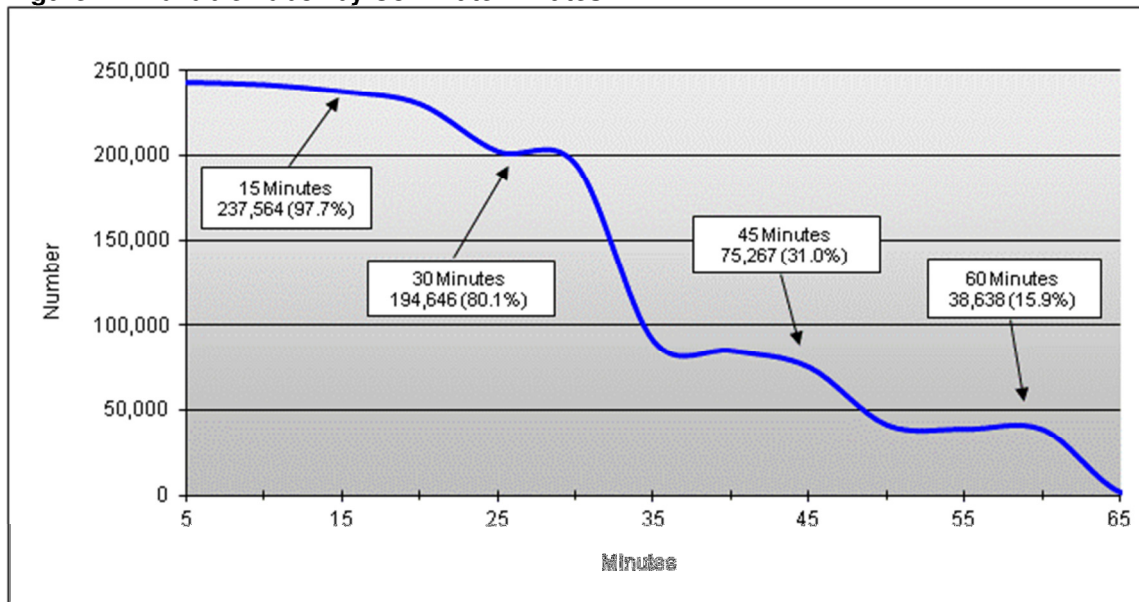
Figure 6 also shows responses to three questions regarding work shifts. Respondents were asked if they would be willing to work weekends, a second or night shift and rotating shifts.

The figure shows that about 48% of the Available Labor Pool indicates that they are willing to work weekends. Nearly as many (almost 44%), indicate that they are willing to work second shifts. About a third of the respondents (33.6%) 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 7 suggests that a large portion of the Available Labor Pool in the Lawrence Kansas Labor Basin is open to commuting.

Almost a third (31%) of the members of the Available Labor Pool will commute up to 45 minutes, one way, for an employment opportunity, while 80.1% will commute up to 30 minutes for employment. Almost all (97.7%) will travel up to 15 minutes for employment.

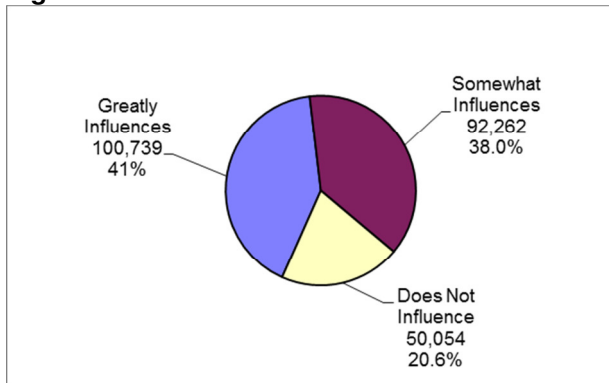
Figure 7: Available Labor by Commute Minutes



Respondents were asked if the minutes they are willing to commute for work were influenced by gasoline prices. Figure 7a shows responses to a question asking, “Does the current price of gasoline greatly influence, somewhat influence, or not at all influence the number of minutes you are willing to commute for a new or different job?” The figure shows that about two-fifths (41%) consider gas prices to “greatly influence” the commute minutes estimate, while 38% consider gas prices to “somewhat influence” the estimate. About one-fifth (20.6%) responded that gas prices do “not influence” the minutes willing to commute for a job.

With about 60% of the Available Labor Pool suggesting that gas prices at least somewhat influences the responses shown in Figure 7, it is conceivable that the number of minutes individuals are willing to commute for a job will increase if gas prices fall.

Figure 7a: Influence of Gas Prices

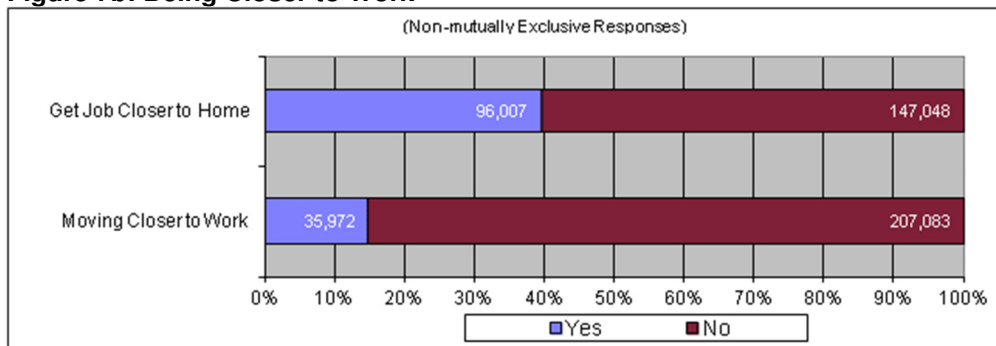


Employed members of the Available Labor Pool were asked two additional questions: “Given the rising prices of gas, have you considered getting a job closer to your home?” and “Have you considered moving to be closer to your job?”

Figure 7b shows that about 40% of the *employed members* of the Available Labor Pool has considered getting a new job closer to their place of residence because of fuel prices. About 15% has considered relocating to be closer to work because of fuel prices.

The questions/answers shown in Figure 7b are new to the Docking Institute’s available labor study design. The percentage shown to the first question (40%) is about 15 percentage points higher than in a recent study conducted in northwest Kansas, but about five percentages points lower than in a recent study in southeast Nebraska. The responses to the question asking about moving closer to work (“yes” = 15%) is consistent with those two studies.

Figure 7b: 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.”

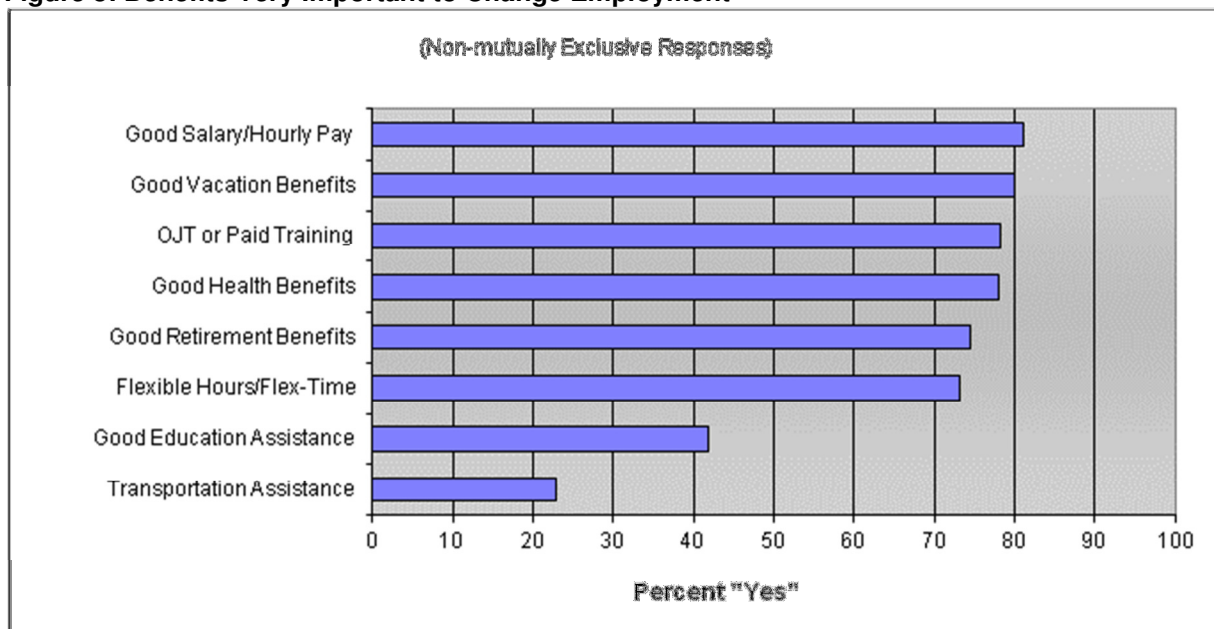
Figure 8 shows the benefits asked about in the study. The percentages shown are of “yes” responses – indicating that benefit was “very important” to the respondent.

The four most important benefits are, in order, good salary/hourly pay, good vacation benefits, on-the-job (OJT) or paid training and good health benefits. These benefits are considered “very important” by about 78% or more of the Available Labor Pool (each).

The two least desired benefits are good educational assistance and transportation assistance. These benefits are considered “very important” by only 44% and 22%, respectively, of Available Labor Pool members.

The results here are rather consistent with results from other recent labor studies conducted by the Docking Institute. It is common, for example, for good salary/hourly pay, good health benefits, good retirement benefits and good vacation assistance to occupy the top four positions in a majority of labor studies. Flexible hours/flex time, on-the-job (OJT) or paid training and good education benefits generally hold the next three positions in most labor studies. As such, the position of on-the-job (OJT) or paid training in Figure 8 is a bit unusual and might suggest that employers seeking new employees might highlight these benefits, if they are, indeed, offered.

Figure 8: Benefits Very Important to Change Employment



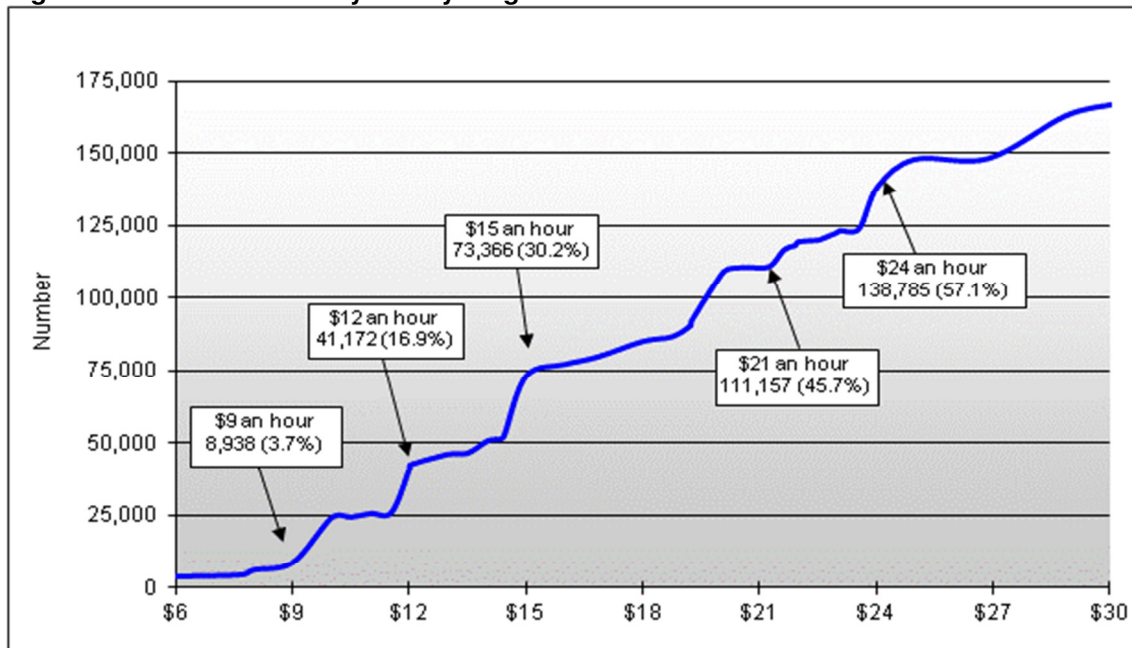
Wage Demands of Available Labor Pool

Wage demands are another important consideration for employers and economic developers. Figure 9 shows desired wages for members of the Available Labor Pool. It is estimated that 138,785 people (or 57.1% of the available labor) are interested in a new job at \$24 an hour².

An estimated 111,157 (or 45.7%) members of the labor pool are interested in a new employment opportunity at \$21 an hour, while 73,366 (30.2%) are interested at \$16 an hour.

Finally, an estimated 41,172 people (16.9%) are interested in a new job at \$12 an hour and 8,938 (3.7%) at \$8 an hour.

Figure 9: Available Labor by Hourly Wage



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

Subsets of the Available Labor Pool

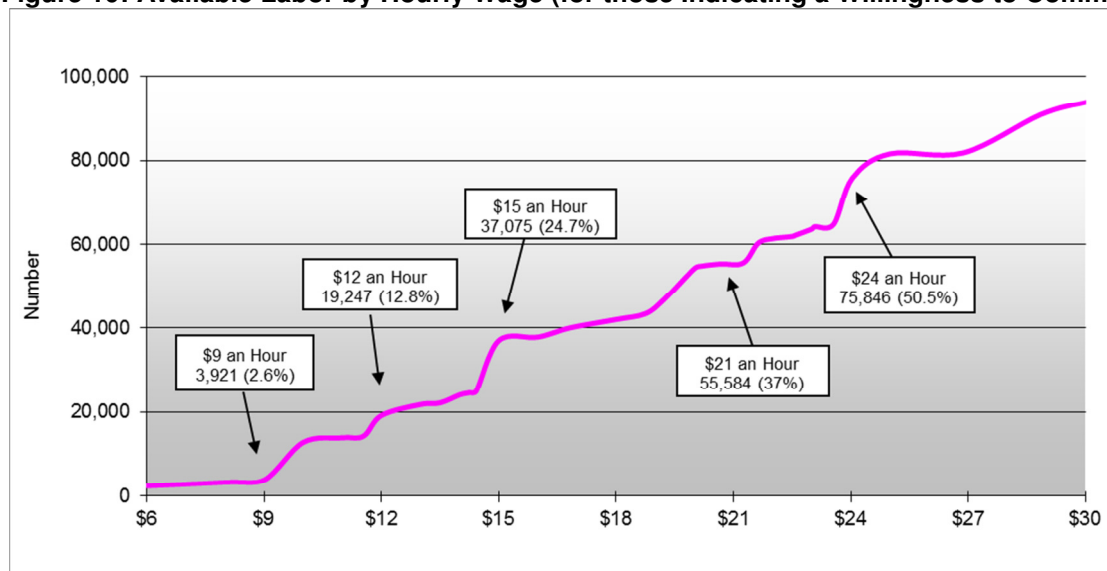
The previous portion of the report has dealt with the entire Available Labor Pool. The remainder of the reports addresses four subsets of the Available Labor Pool, all of which are not mutually exclusive. Three of the four subsets are: The Willing to Commute the Necessary Travel Time, The Underemployed Among Available Labor Pool Workers and Those Willing to Work in Lawrence. The fourth subset addresses Lawrence Employment Inflow and Outflow.

Subset 1: The Willing to Commute the Necessary Travel 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 be “willing to commute the necessary travel time” for a new or different job opportunity. “**Necessary travel time**” is defined as the commute time stated by the respondent that is equal to or greater than the commute time estimated to be 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 full-time job opportunity and that lives an estimated 15 minutes from Leavenworth is considered “willing to commute the necessary travel time” for a new job. Data from these respondents are included in this section of the report. The phrase “willing to commute necessary travel time” has been shortened to “willing to commute.”

Figure 10 shows the wage demands for the Available Labor Pool members that are “willing to commute.” It is estimated that 75,846 people are interested in a new job at \$24 an hour, while an estimated 55,584 are interested in a new employment opportunity at \$21 an hour. An estimated 37,075 are interested at \$15 an hour, 19,247 at \$12 an hour and 3,921 at \$9 an hour.

Figure 10: Available Labor by Hourly Wage (for those Indicating a Willingness to Commute)



The previous figure suggests the obvious: that the higher the wage, the larger the pool of available labor. For example, about 3,921 members of the Available Labor Pool that are “willing to commute” are available for a new or different job at \$9.00 an hour. At \$10.00 an hour (shown but not highlighted with a box), however, the size of the willing to commute available labor increases to 12,860 members. This represents an increase of 8,939 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, 19,247 members of available labor are interested in a job at \$12.00 an hour. At \$13.00 an hour there are an estimated 21,830 individuals available. As such, a \$1 wage increase adds only 2,583 additional workers. Less impressively, an increase of \$1 from \$15 to \$16 nets an additional 820 individuals, and an increase of \$1 from \$25 to \$26 nets only 230 additional workers.

Wage Demands by Occupational Sector (for those Indicating a Willingness to Commute)

Table 4 shows the four main occupational sectors (employed only) of the “willing to commute” subset of the Available Labor Pool. The table shows data representing each occupational sector *independently* and does *not* include non-working pool members.

The table shows that 33% of the general laborers group is available for a new or different job at a wage of at least \$12 an hour, and 53% is available for new employment at a wage of at least \$18 an hour. Of the skilled laborers group, 4% is available for a job for at least \$12 an hour and 26% is available for a job at or above \$18 an hour.

About a fifth (21%) of the service workers group is available at a wage of at least \$12 an hour, while 48% is available at a wage of at least \$18 an hour. None of the professional workers group is available at a wage of at least \$12 an hour and only 5% is available at a wage of at least \$18 an hour.

Table 4: Cumulative Wage Demands for Occupational Sectors

	General Labor		High Skilled Labor		Service Sector		Professional/Sales	
	Number	Cumulative	Number	Cumulative	Number	Cumulative	Number	Cumulative
\$30 or More	17,490	100%	15,965	100%	52,826	100%	42,105	100%
At least \$30	16,167	92%	14,542	91%	47,253	89%	29,205	69%
At least \$27	14,774	84%	11,756	74%	41,681	79%	20,150	48%
At least \$24	13,381	77%	8,969	56%	36,805	70%	13,184	31%
At least \$21	11,291	65%	6,880	43%	32,979	62%	6,915	16%
At least \$18	9,201	53%	4,094	26%	25,317	48%	2,090	5%
At least \$15	7,808	45%	1,393	9%	16,959	32%	697	2%
At least \$12	5,719	33%	697	4%	11,145	21%	0	0%
At least \$9	2,932	17%	0	0%	4,876	9%	0	0%
At least \$6	697	4%	0	0%	697	1%	0	0%

Table 5 shows wage demand data for general labor and service sector workers that are willing to change fields of employment, and thus, suggests that they are potential workers for either of these two sectors. Additionally, it is assumed that a non-working Available Labor Pool member will take a job (all things being equal) in either the general labor sector or the service sector. Specifically, Table 5 *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.

Table 5: Cumulative Wage Demands Allowing Mobility between General Labor and Service Sector

	Mobile General Labor		Mobile Service Sector	
	Number	Cumulative	Number	Cumulative
\$30 or More	76,599	100%	79,249	100%
At least \$30	74,510	97%	76,463	96%
At least \$27	68,256	89%	70,194	89%
At least \$24	58,505	76%	61,835	78%
At least \$21	53,679	70%	55,979	71%
At least \$18	41,506	54%	42,745	54%
At least \$15	26,182	34%	28,118	35%
At least \$12	15,265	20%	16,276	21%
At least \$9	2,471	3%	3,483	4%
At least \$6	697	1%	697	1%

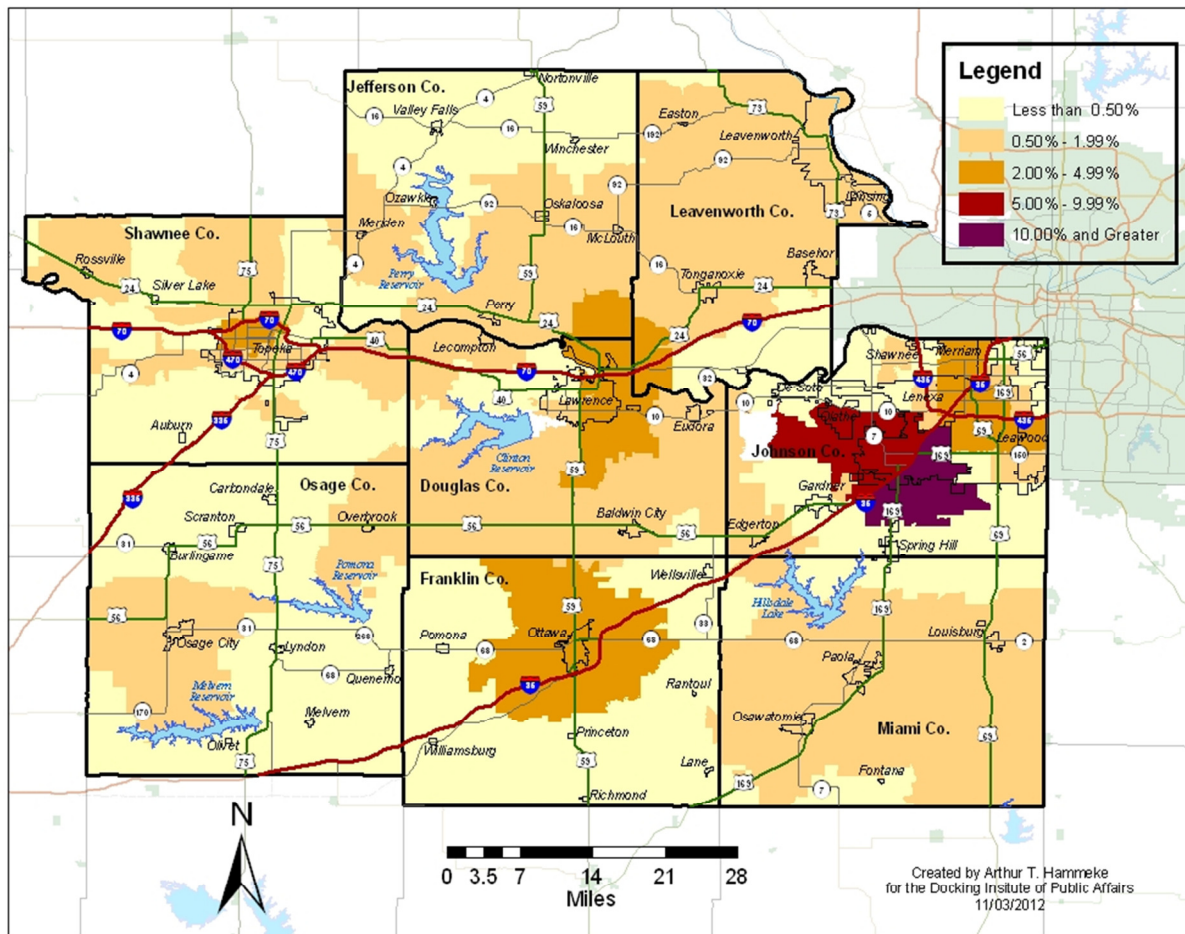
Table 4, from the previous page, shows data representing each occupational sector *independently* and does not include non-working Available Labor Pool members. Table 5 (above), on the other hand, allows a general laborer or service sector worker to be classified in both sectors if he or she indicates a willingness to change fields of employment (see Figure 6, page 19). Table 5 also includes non-working Available Labor Pool members³.

³ High-skilled blue-collar workers and professional white-collar workers are excluded from Table 5 because it is presumed that, as a general rule, people in occupations such as Doctors, Lawyers, Engineers, Professors, Machinists, Electricians, etc... are unlikely to transfer into lower-skilled general labor and service/support occupations. It is also presumed that, because professional and highly skilled occupations require extensive education and/or training, lower-skilled general laborers and service sector workers are unable to transfer to higher-skilled labor or professional positions - at least in the near term.

Map 4 shows how each zip code in the basin compares to all other zip codes in terms of the percent of available labor in the Lawrence Kansas Labor Basin that are *willing to travel the necessary commute time* for a new or different job.

Each zip code is grouped into one of five categories specified in the legend. Large portions of this subset of the Available Labor Pool are located in Johnson County, although all counties are represented.

Map 4: Percent of Total Available Labor in Basin by Zip Code (Indicating a Willingness to Commute)



Subset 2: The Underemployed Among Available Labor Pool Workers

Underemployment is an important issue in many communities. To assess underemployment in the Lawrence Kansas Labor Basin, *employed members of the Available Labor Pool* were presented with a scenario describing underemployment⁴. 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 (to below full-time status).

There are 176,922 *employed members* of the Available Labor Pool (72.8%) (shown in Figure 11). Of the employed members of the pool, about a quarter answered “yes” to one or more of the questions presented above and is considered underemployed (shown in Figure 12).

Figure 12 shows that underemployed workers represent 26.4% (or 46,707 individuals) of the employed members of the Available Labor Pool.

Figure 11: Employment Among the Available Labor Pool

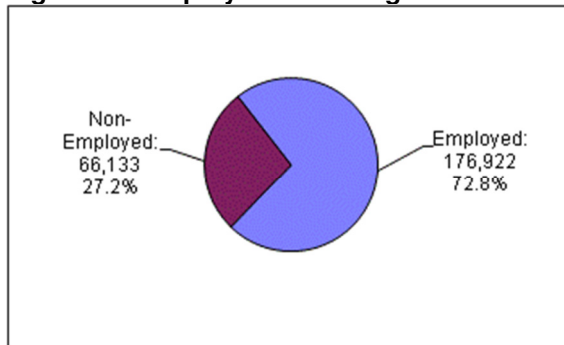
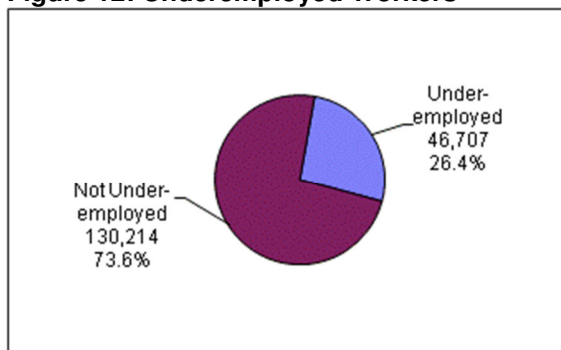


Figure 12: Underemployed Workers



⁴ “Because of circumstances, some workers have jobs that do not fully match their skills, education, or experiences. For example, a master plumber taking tickets at a movie theater would be a mismatch between skill level and job requirements. Do you consider yourself an underemployed worker because....?”

Figure 12a shows the percentages of the positive responses (i.e., “yes” answers) to the various reasons for underemployment. Almost a quarter (23%) of this subset of the Available Labor Pool has education levels that exceed those needed for their current positions, while 22% worked similar jobs in the past but were paid greater incomes. Almost a fifth (19%) possesses greater skills than their current jobs require and 10% is not able to work enough hours.

In general (with most labor studies), skills and education are the two main reasons for underemployment, respectively. It is not surprising for education to top the list here, given the highly educated Available Labor Pool in the Lawrence Labor Basin. Unemployment for income is an unexpected outcome, but does suggest that employers might attract new workers by advertising higher than average hourly wages.

Figure 12a: Reasons for Underemployment

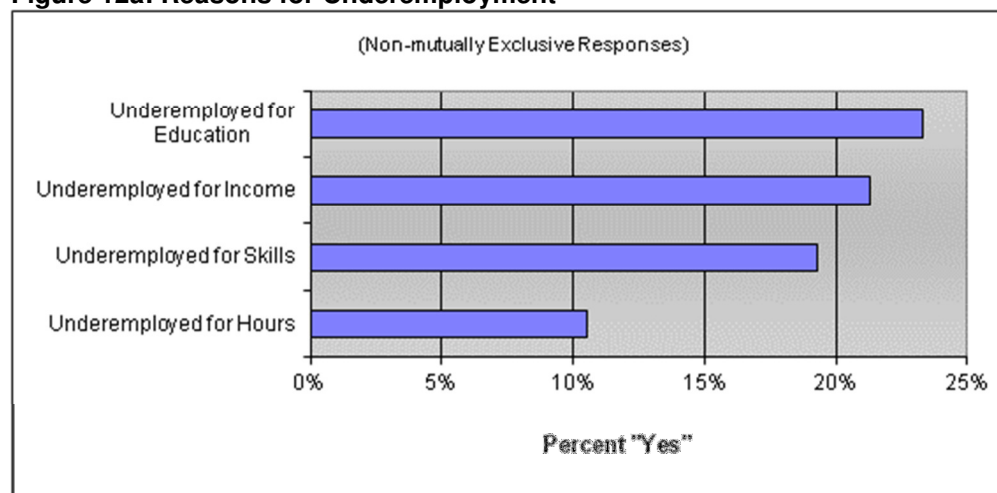


Table 6 and Figure 16 (next page) show some characteristics of the underemployed members of the Available Labor Pool. Table 6 shows the education levels of underemployed workers. Half of the underemployed Available Labor Pool in the Lawrence Labor Basin has at least bachelor’s degrees, and 84.9% has at least some college experience. These figures are higher than shown in other recent labor studies and reflect the high level of education in this labor basin.

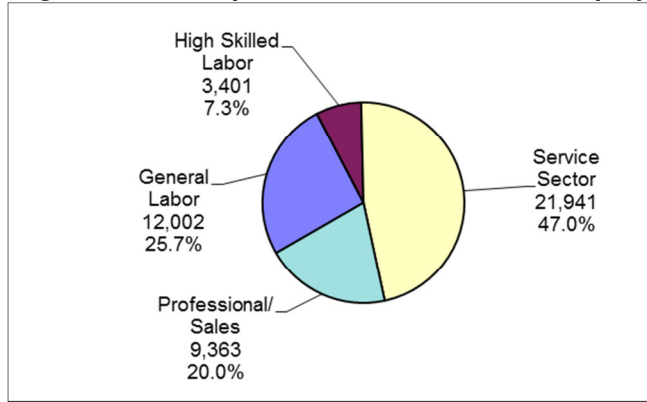
Table 6: Highest Level of Education Achieved Among Underemployed

	Number	Percent	Cumulative Percent
Doctoral Degree	1,223	2.6	2.6
Masters Degree	10,049	21.5	24.1
Bachelors Degree	12,519	26.8	50.9
Associates Degree	3,307	7.1	58.0
Some College	12,550	26.9	84.9
High School Diploma Only	7,058	15.1	100.0
Less HS Diploma	0	0.0	100
Extrapolated Total	46,707	100	

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

Figure 12b shows that 25.7% of the underemployed workers are employed as general laborers and 7.3% is employed as high-skilled blue-collar laborers. The largest percentage of underemployed workers is employed as service sector and support workers (47%), while fewer (20%) hold professional positions.

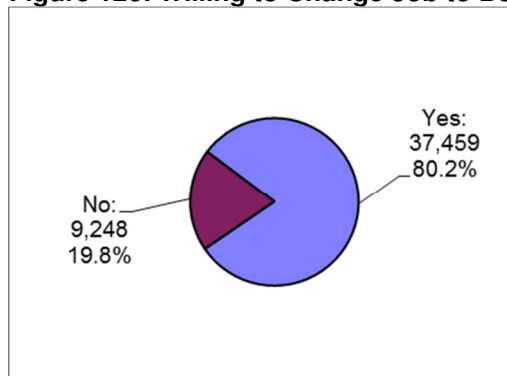
Figure 12b: Occupational Sectors of Underemployed Workers



Comparing the results shown in Figure 12b to those in Figure 2 (page 12) suggests that more general laborers and service sector workers (than high skilled laborers and professional workers) view themselves as underemployed. Figure 2 shows the labor sectors of the employed members of the Available Labor Pool as consisting of: 14% general labor, 13% high skilled labor, 41% service sector workers and 32% professional workers.

Respondents indicating that they were underemployed were also asked a follow-up question addressing their willingness to change jobs in order for them to better utilize their skills and/or education levels. Figure 12c suggests that a high percentage – 80.2% (or 37,459 individuals) – of the underemployed workers are willing to change jobs to address underemployment.

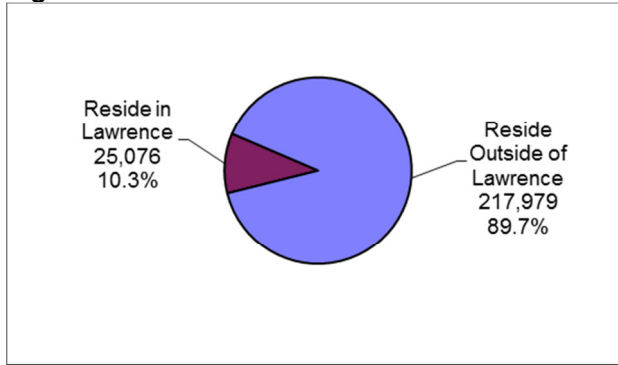
Figure 12c: Willing to Change Job to Better Use Skills/Education



Subset 3: Those Willing to Work in Lawrence

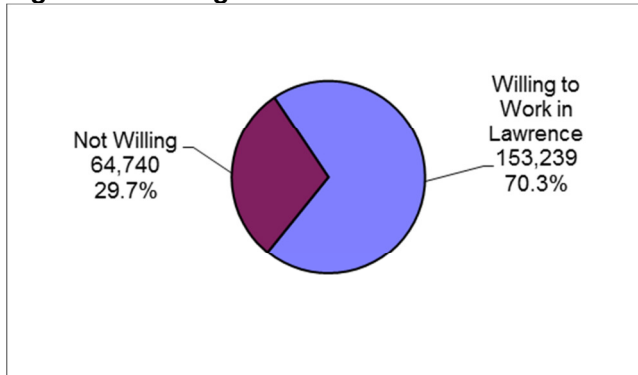
This section of the report includes *only those Available Labor Pool members residing outside of the City of Lawrence*. Figure 13 shows that, of the entire Available Labor Pool in the Lawrence Kansas Labor Basin, 89.7% reside in areas outside of Lawrence⁵.

Figure 13: Location of Residence



Available Labor Pool members residing outside of Lawrence (the 217,979 individuals shown in Figure 13) were asked if they “would consider taking a job in Lawrence for the right opportunities?” Figure 14 shows that most (70.3%) answered in the affirmative. It is estimated that this subset of the Available Labor Pool includes 153,239 individuals. The rest of this section of the report represents those individuals.

Figure 14: Willing to Work in Lawrence



⁵ The working age population (those between 18 and 64 years old) of the entire labor basin is estimated to be 641,385 and the working age population of Lawrence is estimated to be 66,102 (US Census, 2011). As such, the working age population of Lawrence is 10.3% of the working age population of the entire labor basin.

Figure 14a shows that service sector workers represent 30% of those members of the Available Labor Pool residing outside of Lawrence but willing to work in Lawrence. A quarter (25%) of this subset is represented by professional white-collar workers.

Fewer (14% and 10%) are general laborers and high-skill laborers, respectively. About a fifth (21%) is currently non-working.

Figure 14a: Occupational Sectors of Willing to Work in Lawrence

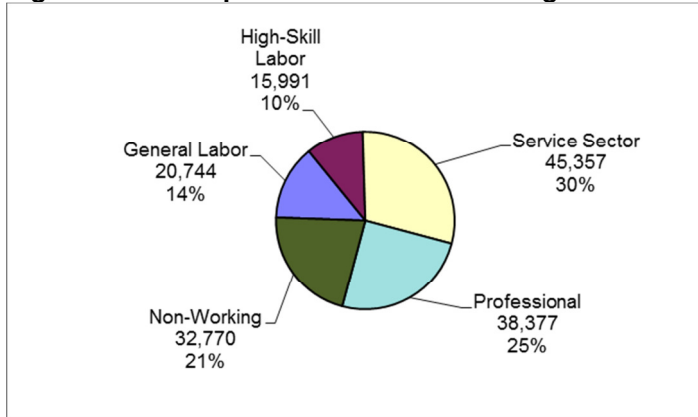


Table 7 shows the education levels of this subset. More than half (50.7%) hold at least bachelor's degrees, while more than four-fifths (84.1%) has as at least some college experience.

Table 7: Highest Level of Education Achieved Among Willing to Work in Lawrence

	Number	Percent	Cumulative Percent
Doctoral Degree	865	0.6	0.6
Masters Degree	35,655	23.3	23.8
Bachelors Degree	41,117	26.8	50.7
Associates Degree	15,903	10.4	61.0
Some College	35,316	23.0	84.1
High School Diploma	23,549	15.4	99.5
Less HS Diploma	834	0.5	100
Extrapolated Total	153,239	100	

Figure 14b shows the desired benefits. Slightly more than 80% of this subset considers good salary/hourly pay and good health benefits as “very important” considerations for taking a new or different job. Good vacation benefits, good retirement benefits, on-the-job (OJT) or paid training and flexible hours/flex-time are considered “very important” by more than 75% of this subset, each.

Figure 14b: Benefits Very Important to Change Employment Among Willing to Work in Lawrence

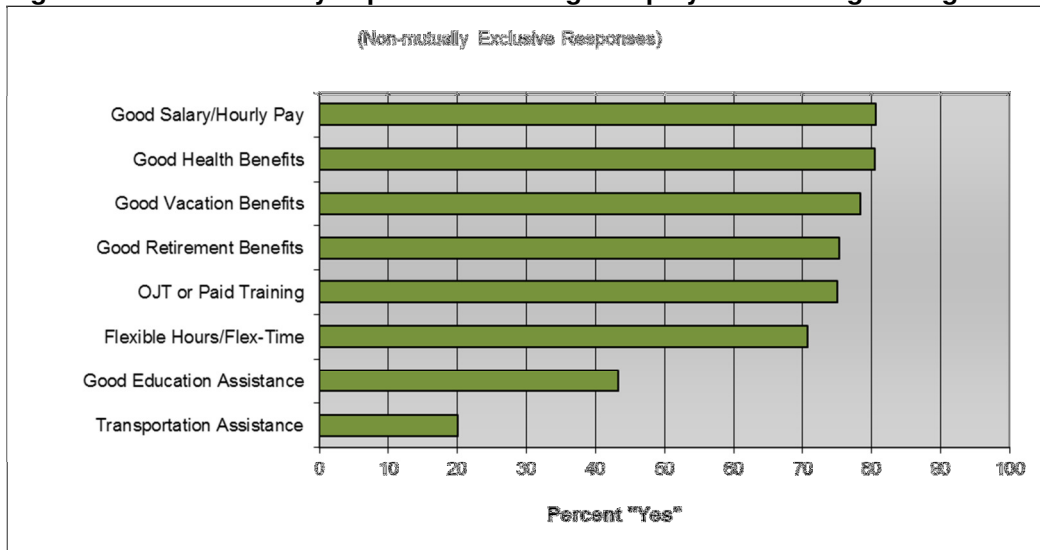
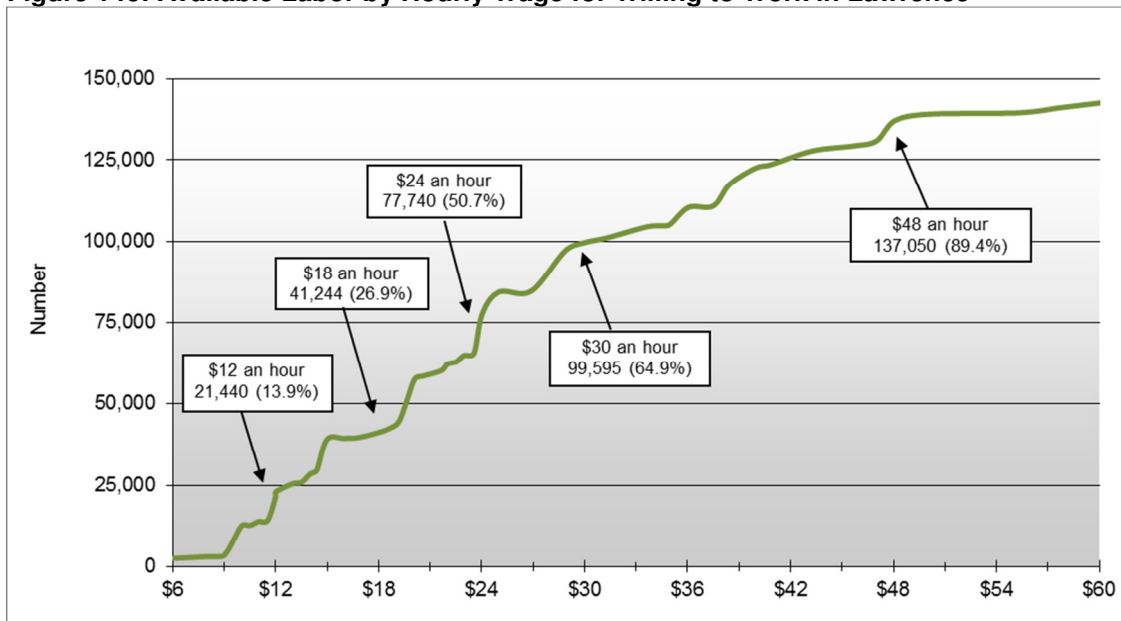


Figure 14c shows desired wages of this subset. The figure shows that almost 14% of this subset is available for a wage of \$12 or more per hour. Slightly more than half is available for a wage of \$24 per hour or more.

Figure 14c: Available Labor by Hourly Wage for Willing to Work in Lawrence



To further understand this subset of the Available Labor Pool, **underemployment** is addressed. Almost four-fifths (78.6%) of this subset is employed. Of the employed members of this subset, almost two-fifths (39.9%) consider themselves as underemployed (shown in Figure 16). This contrasts to about a quarter (26.4%) of the entire employed members of the Available Labor Pool that consider themselves underemployed (see Figure 12, page 23).

Figure 15: Employment Among Willing to Work in Lawrence

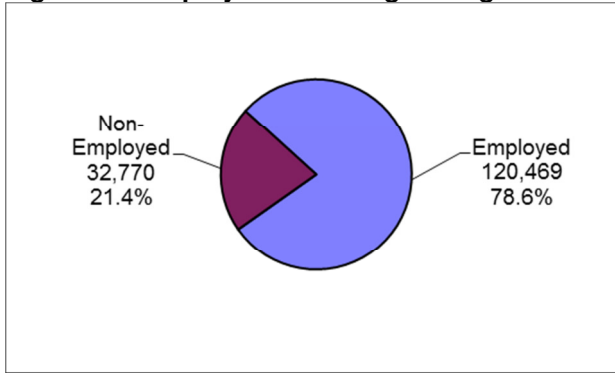


Figure 16: Underemployed Workers Among Willing to Work in Lawrence

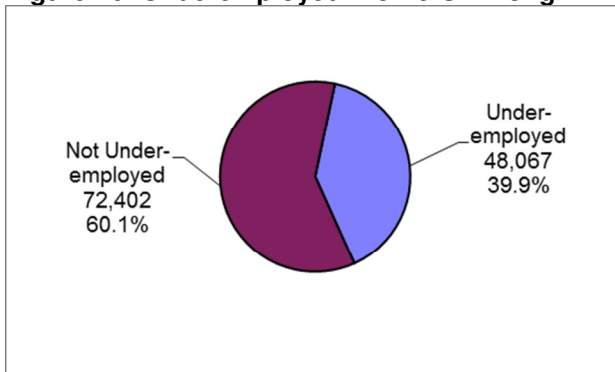


Figure 16a shows the percentages of the positive responses (i.e., “yes” answers) to the various measures of underemployment. Almost 58% of this subset has education levels that exceed those needed for their current positions, while 54% had worked similar jobs in the past but were paid greater incomes.

Half (50%) consider themselves underemployed because they have skills that are not used on the job currently. More than a quarter (27%) are consider themselves underemployed because they are not able to work enough hours.

Figure 16a: Reasons for Underemployment Among Willing to Work in Lawrence

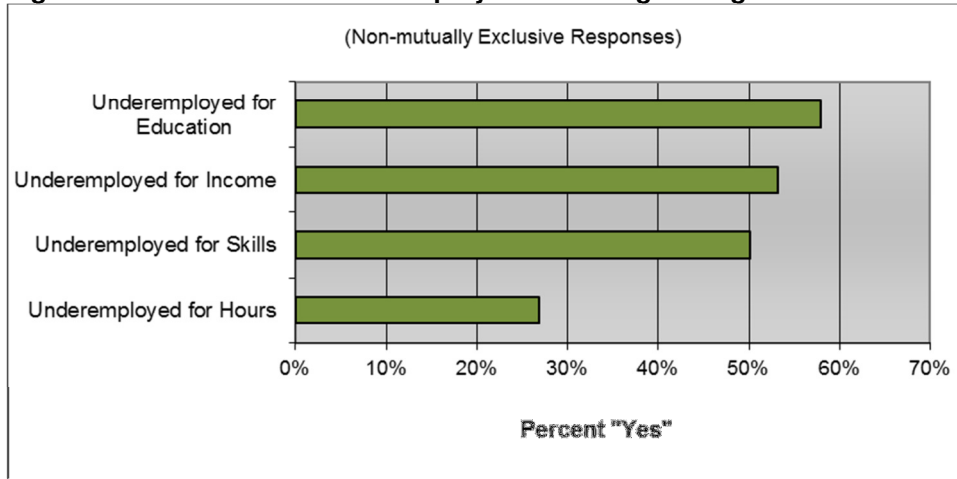


Table 8 and Figure 16b (next page) show some characteristics of the underemployed members of the Available Labor Pool. Table 6 shows the education levels of underemployed workers.

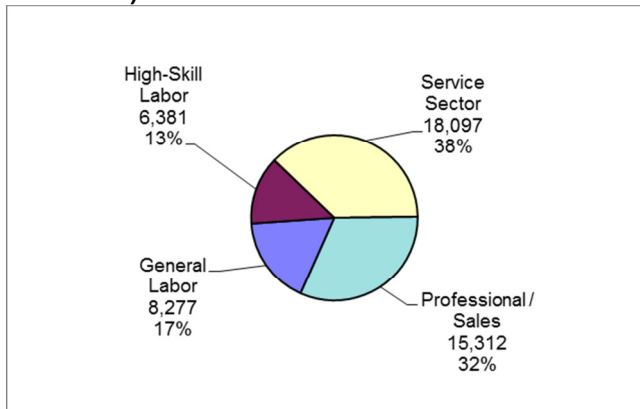
Table 8: Highest Level of Education Achieved Among Underemployed (of Willing to Work in Lawrence)

	Number	Percent	Cumulative Percent
Doctoral Degree	506	1.1	1.1
Masters Degree	12,371	25.7	26.8
Bachelors Degree	10,896	22.7	49.5
Associates Degree	2,496	5.2	54.6
Some College	14,447	30.1	84.7
High School Diploma	7,352	15.3	100.0
Less HS Diploma	0	0.0	100
Extrapolated Total	48,067	100	

Figure 16b shows the occupation sectors of underemployed workers among the subset of working members of the Available Labor Pool that reside outside of Lawrence but are willing to work in Lawrence.

Almost a third (32%) is represented by profession white-collar workers. More (38%) is represented by service workers. Seventeen percent is represented by general laborers, while fewer (13%) is represented by high-skilled blue-collar workers.

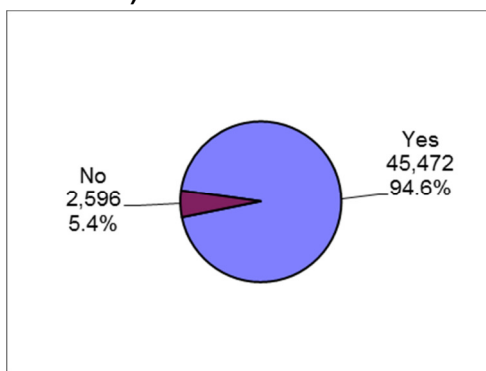
Figure 16b: Occupational Sectors of Underemployed Workers (among Willing to Work in Lawrence)



As a reminder, Figure 12b (page 25) represents the labor sectors of the underemployed members of the entire Available Labor Pool. Figure 12b shows the underemployed workers as consisting of: 25.7% general labor, 7.3% high skilled labor, 47% service sector workers and 20% professional workers. As such, it seems that many professional and high skilled labor represent larger portions of the underemployed workers residing outside of Lawrence, as least among those willing to work in Lawrence.

The vast majority (97.6%) of the subset of underemployed workers residing outside of Lawrence but willing to work in Lawrence is willing to change fields of employment to address underemployment.

Figure 16c: Willing to Change Job to Better Use Skills/Education (among Willing to Work in Lawrence)



Subset 4: Lawrence Employment Inflow and Outflow

This section of the report addresses worker flow into and out of Lawrence. As such, data presented in this section *includes only employed members* of the Available Labor Pool.

As a reminder⁶, Figure 17 shows that 72.8% of the Available Labor Pool is employed, while 27.2% is not working at the present time.

Figure 17: Employment Among the Available Labor Pool

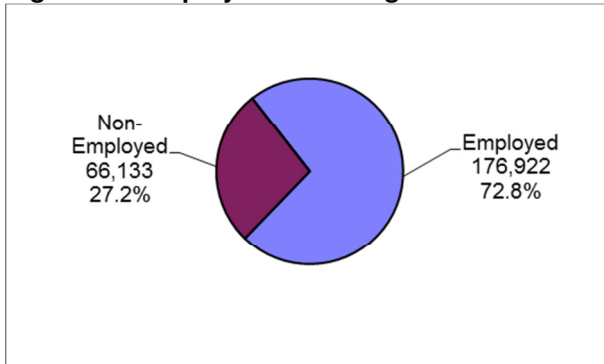
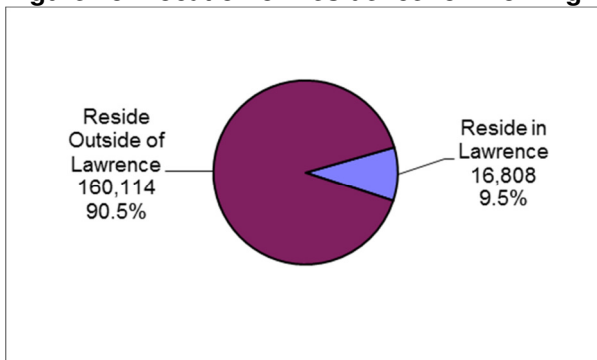


Figure 18 shows that, of the working members of the Available Labor Pool, 9.5% reside in Lawrence and 90.5% do not⁷.

Figure 18: Location of Residence for Working Members of the Available Labor Pool



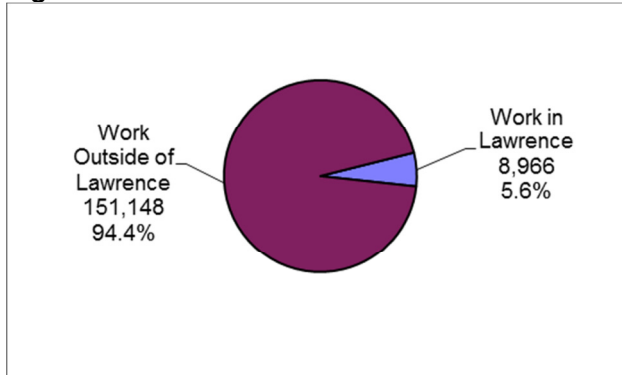
⁶ Available Labor Pool employment is also shown in Figure 11, page 23.

⁷ The employed population of the entire labor basin is estimated to be 501,394 and the employed population of Lawrence is estimated to be 45,882 (Bureau of Labor Statistic, 2012). As such, the employed population of Lawrence is 9.2% of the employed population of the entire labor basin.

It is estimated that, of the 160,114 employed members of the Available Labor Pool residing outside of Lawrence (also shown in Figure 18, previous page), 8,966 (5.6%) work in Lawrence (shown in Figure 18a, below).

These 8,966 individuals are employed members of the Available Labor Pool residing outside of Lawrence, but work in Lawrence and are referred to as the “Inflow.”

Figure 18a: Work Location of Non-Lawrence Residents (of working Available Labor Pool)



It is also estimated that, of the 16,808 employed members of the Available Labor Pool residing in Lawrence (shown in Figure 18, previous page), 5,681 (33.8%) work outside of Lawrence (shown in Figure 18b, below).

These 5,681 individuals are employed members of the Available Labor Pool residing in Lawrence, but work outside of Lawrence and are referred to as the “Outflow.”

Figure 18b: Work Location of Lawrence Residents (of working Available Labor Pool)

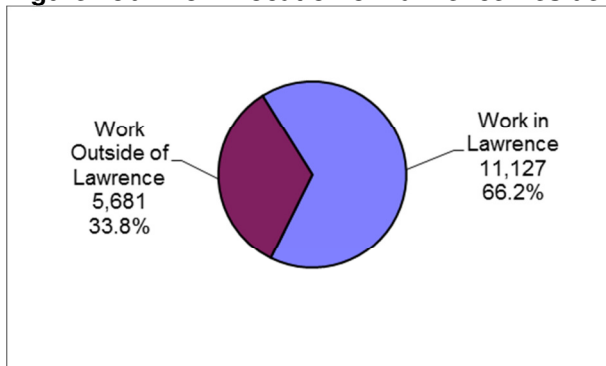


Table 9 (next page) compares the Inflow and Outflow⁸ with regard to labor sector, educational attainment, underemployment and desired benefits for new employment.

⁸ Percentages and extrapolated totals based on cases numbering 50 or fewer are to be considered suggestive only. Results for the Inflow and Outflow have Margins of Error of +/-18.6% and +/-23.4%, respectively.

Table 9 shows that service workers represent the largest labor sector of the Inflow, while professional white-collar represent the largest sector of Outflow workers (by far).

Members of the Outflow report much higher levels of education compared to the Inflow. Almost half (47%) of the Outflow has master's degrees, while 80.7% has at least bachelor's degrees. Among the Inflow, 9.8% has at least master's degrees and half (50.3%) has at least bachelor's degrees.

More than twice as many Inflow members consider themselves underemployed (32.7%) than do Outflow members (14.3%). Clearly, more Outflow workers feel their jobs do not underuse their educations or skills, or that their jobs match their expectations for income and hours.

Table 9: Lawrence Employment Inflow and Outflow

<i>Labor Sector</i>	Inflow (8,966)			Outflow (5,681)		
	Number	Percent		Number	Percent	
General Labor	1,766	19.7		585	10.3	
High Skill Labor	3,013	33.6		341	6.0	
Service Sector	3,596	40.1		812	14.3	
Professional	592	6.6		3,943	69.4	
Total	8,966	100		5,681	100	
Highest Education			Cumulative			Cumulative
	Number	Percent	Percent	Number	Percent	Percent
Doctoral Degree	592	6.6	6.6	0	0.0	0.0
Masters Degree	287	3.2	9.8	2,676	47.1	47.1
Bachelors Degree	3,631	40.5	50.3	1,909	33.6	80.7
Associates Degree	242	2.7	53.0	403	7.1	87.8
Some College	2,511	28.0	81.0	579	10.2	98.0
High School Diploma	1,704	19.0	100	114	2.0	100
Less HS Diploma	0	0.0		0	0.0	
Total	8,966	100		5,681	100	
Underemployment						
	Number	Percent		Number	Percent	
Underemployed	2,932	32.7		812	14.3	
Not Underemployed	6,034	67.3		4,869	85.7	
Total	8,966	100		5,681	100	
Desired Benefits						
(Ranked by Outflow)		Percent			Percent	
Good Salary/Hourly Pay		98.0			89.7	
Good Vacation Benefits		92.7			87.0	
Good Retirement Benefits		91.6			86.0	
Good Health Benefits		83.9			85.9	
Flexible Hours/Flex-Time		88.1			77.6	
OJT or Paid Training		91.4			72.0	
Transportation Assistance		18.3			43.0	
Good Education Assistance		52.3			42.6	

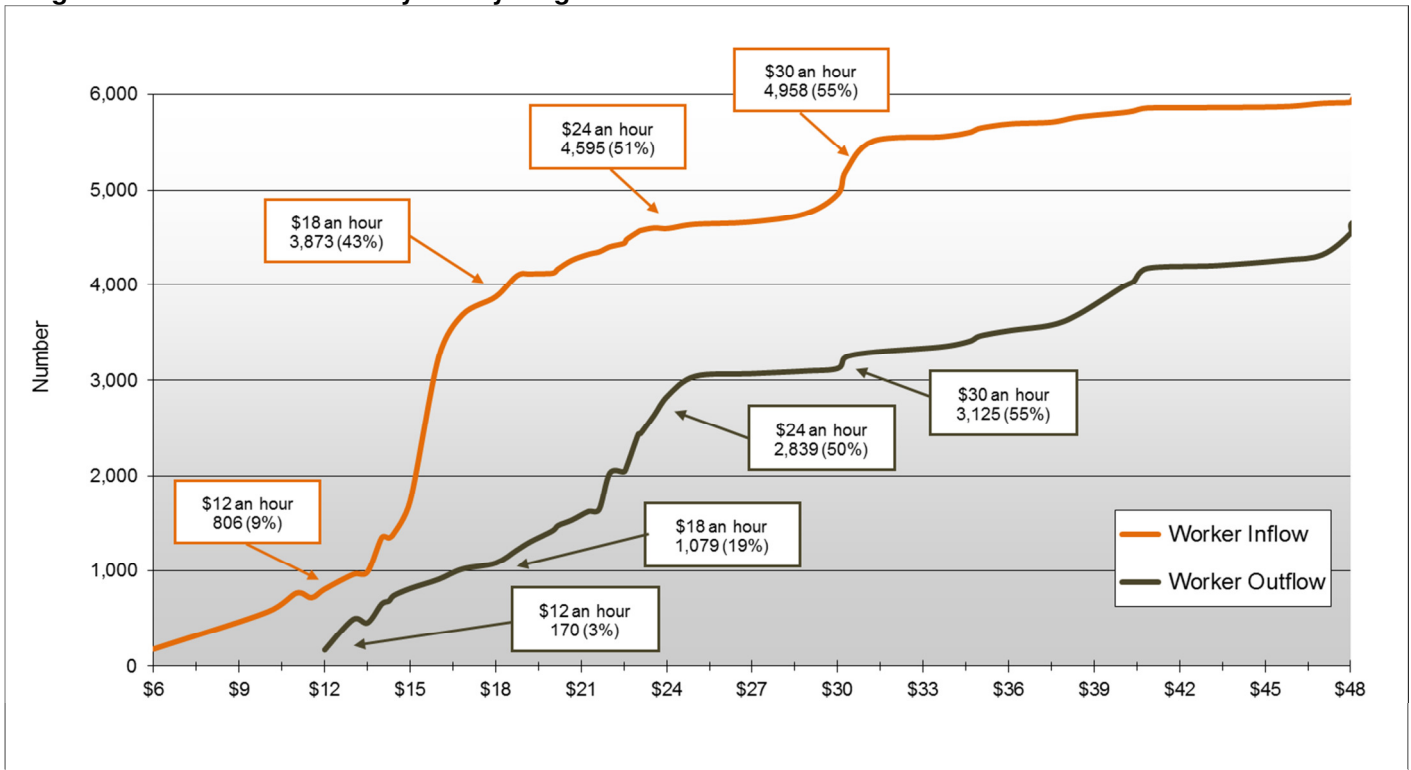
Table 9 also shows various benefits that workers may consider “very important” when considering a new employment opportunity. In six of the eight cases, higher percentages of Inflow workers consider these benefits “very important” than do Outflow members.

Figure 18c shows desired wages for both Inflow and Outflow workers. The pool of Inflow workers is larger than the pool of Outflow workers (8,966 and 5,681, respectively), so the key information gained from the figure is not the size of the respected available labor pools, but the percentage differences in wage expectations.

Interestingly, at a rate of \$18 an hour or more, 43% of the Inflow but only 19% of the Outflow is available for a new or different full-time job. By \$24 per hour or more, however, the percentages of available labor converge at about 50% for each group.

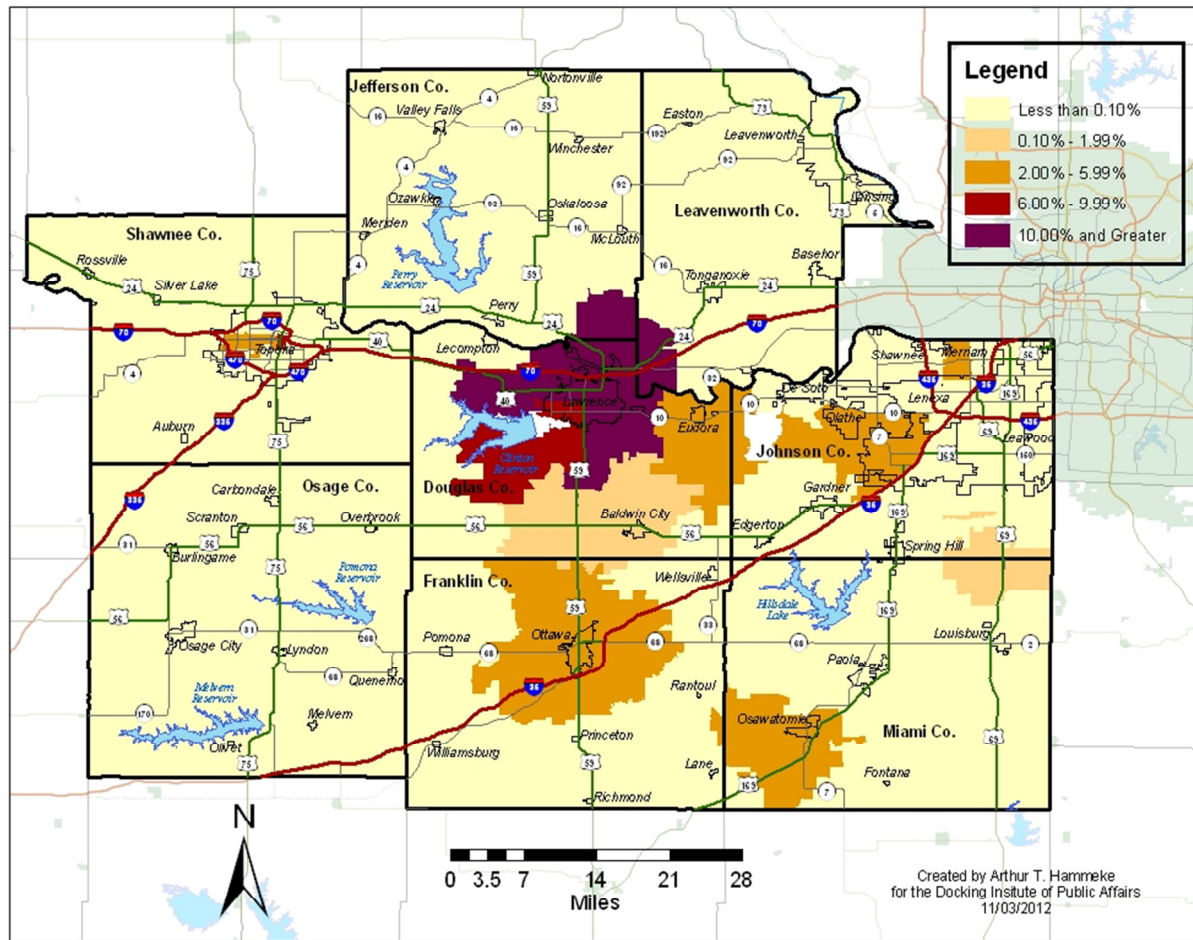
In other words, fewer Outflow workers are available at low wages than are Inflow workers. This coincides with information presented in Table 9, as professional workers and those reporting higher levels of education make up greater portions of the Outflow than of the Inflow.

Figure 18c: Available Labor by Hourly Wage for Inflow and Outflow



Map 5 shows the locations of employers within the basin by zip code area of members of the Available Labor Pool **residing in Lawrence that work in Lawrence or outside of the city**. Each zip code is grouped into one of five categories specified in the legend. The map shows that employers of working members of the Available Labor Pool residing in Lawrence are located in all counties of the labor basin, with Osage County containing the fewest employers.

Map 5: Percent of Employers by Zip Code of Available Labor Pool Workers Residing in Lawrence



Research Methods

The 2012 Lawrence Kansas Labor Basin has a total population of approximately 1,015,212 and a Civilian Labor Force (CLF) of 531,316. The Docking Institute's analysis estimates that the basin contains an Available Labor Pool of 243,055 individuals.

Table 10: Population and Employment/Labor Figures for the Lawrence Kansas Labor Basin

Lawrence Kansas Labor Basin Study 2012	
Labor Basin Population	1,015,212
Civilian Labor Force	531,316
Employed	501,394
Unemployment Rate	5.6%
Available Labor Pool	243,055

Explaining the Civilian Labor Force

Traditional methods of assessing the dynamics of the labor force have concentrated on what the Bureau of Labor Statistics (BLS) calls the Civilian Labor Force (CLF). The CLF represents “the civilian non-institutional population, 16 years of age and over classified as employed or unemployed.” The BLS defines “non-institutionalized 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 CLF statistics represents the starting point for understanding the labor force in the Lawrence Kansas Labor Basin, there are some limitations associated with these statistics. These limitations occur because the CLF *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, Census-based and BLS data (such as the CLF) 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 CLF is the “Available Labor Pool⁹.” The Available Labor Pool is composed of individuals categorized as either 1) currently not working *but* looking for employment, 2) currently employed (full- or part-time) *and* looking for other full-time employment, 3) currently not working in any manner *but* willing to consider different employment for the *right opportunity* and

⁹ The Available Labor Pool includes potential workers excluded from the CLF (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).

4) currently employed and not looking, *but* willing to consider different employment for the *right opportunity*.

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 CLF¹⁰. Secondly, the number of potential workers is then *restricted* to those workers who indicate they are looking for full-time work or are available for new full-time 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 alone. The Available Labor Pool for the Lawrence Kansas Labor Basin includes 243,055 individuals. This represents a substantial number of workers and potential workers for employers to draw upon in the Lawrence Kansas Labor Basin.

Determining the Labor Basin

Data for this study were collected from a random digit telephone¹¹ survey of adults living in Douglas, Franklin, Jefferson, Johnson, Leavenworth, Miami, Osage and Shawnee Counties in Kansas.

Our methodological approach is based on the assumption that employers draw a majority of their workforce from locations within a 45 minute commute time from their place of employment. One criterion used to include a county in a labor basin is whether it has a significant border adjacent to the county at the center of the labor basin and/or whether the county contains communities with adequate transportation access to suggest their residents might commute to the center county of the labor basin for an employment opportunity. If adjacent or nearby counties contain large population areas (providing employment opportunities of their own and likely discouraging workers to commute to the center county for employment) the relevant portions of those adjacent counties are excluded from the labor basin.

It is our assessment that the geographic area making up the Lawrence Kansas Labor Basin provides the most reasonable “basin” from which a “pool” of employees can be drawn for new and/or different employment.

¹⁰ 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 full-time 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.

¹¹ The 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.

Description of Survey Research and Data Analysis Methods

Surveying took place from July 15, 2012 to October 15, 2012 using a Computer Assisted Telephone Interviewing (CATI) system. A total of 4,343 households were successfully contacted during the data collection period, and a randomly selected adult¹² in each was asked to participate in the study. In 2,584 households the selected adult agreed to be interviewed. This represents a cooperation rate of 59.5% and a Margin of Error of +/- 1.93%.

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 1,783 and are considered eligible, working age, respondents.

Of the 1,783 respondents, 749 indicated that they were looking for new or different employment or were available for new or different employment given the right opportunities. These 749 respondents are considered members of the Available Labor Pool for the Leavenworth Labor Basin. Responses from 749 individuals provide a Margin of Error of +/- 3.58%.

The extrapolated Available Labor Pool represents 23.9% of the Lawrence Kansas Labor Basin population and 37.8% of the working age population of the basin.

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. 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.

¹² Surveyors requested to "speak with an adult over the age of 17 that has had the most recent birthday."

Appendix I: Current Employment Status of ALP

	Current Employment Status of ALP	
	Number	Percent
General Labor/Construction/Cleaning	7,660	3.15
Farm Labor/Ranch Hand/Landscaping	510	0.21
Delivery/Driver/Courier	5,988	2.46
Maintenance/Wiring/Plumbing	8,236	3.39
Factory Worker/Grain Elevator Op/Meat Packer	927	0.38
Truck Driver/Heavy Equipment Operator	1,520	0.63
Police/Fire/Postal/Military Enlisted	1,976	0.81
Lab or Medical Technical/Comp Technician	16,764	6.90
Mechanic/Welder/Carpenter/Electrician	3,993	1.64
Other Blue Collar	0	0.00
General Customer Service/Retail/Reception/Food Service	12,848	5.29
Clerical/Secretary/Book-Keeper/Bank Teller	26,097	10.74
Para-legal/Para-pro/CNA/Day Care	9,507	3.91
Nurse/LPN/RN/Semi-skilled Social Service	8,437	3.47
Office Manager/Small Business Owner	16,435	6.76
Teacher/Instructor/Writer/Researcher	19,179	7.89
Sales/Marketing/Accounting	20,591	8.47
Govt, Non-Profit, or Bus Exec/Farm Owner/Military Officer	6,100	2.51
Counselor/Social Worker/Physician's Assistant	2,323	0.96
Professor/Doctor/Engineer/Attorney	7,832	3.22
Other White Collar	0	0.00
Homemaker	8,429	3.47
Full-Time Student	2,495	1.03
Unemployed	16,043	6.60
Retired	37,642	15.49
Disabled	1,524	0.63
Extrapolated Total	243,055	100

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

Appendix II: Hourly Wage to Annual Salary Conversion Chart

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