



AVAILABLE LABOR FORCE IN SOUTHERN MIDDLE TENNESSEE:

AN UNDEREMPLOYMENT STUDY

for

Local Workforce Investment Area 6 (LWIA 6) and Industrial Development Boards of Bedford,
Coffee, Franklin, Grundy, Lincoln, Moore, and Warren Counties

Murat Arik, Ph.D.

Associate Director

and

David A. Penn, Ph.D.

Director and Associate Professor

Business and Economic Research Center

Jennings A. Jones College of Business

Middle Tennessee State University

Murfreesboro, TN 37132

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Jennings A. Jones College of Business,
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EXECUTIVE SUMMARY

Conveniently located between the Nashville MSA and Huntsville MSA, the southern middle Tennessee counties are well-positioned for businesses seeking to expand and/or relocate their operations. Although the location itself is one of the critical assets, for a sustainable economic growth, the scope and the issues related to the counties' human capital should be fully analyzed and documented. The goal of this study is to identify and analyze the scope and characteristics of available labor force in the study area. The study aims to answer the following two major questions:



-  What is the number of available labor force defined as “unemployed,” “underemployed,” and “marginally attached”?
-  What are the characteristics of each component of available labor force?

The Business and Economic Research Center (BERC), Middle Tennessee State University, conducted this research in close cooperation with the industrial development boards of the seven counties in southern middle Tennessee (Bedford, Coffee, Franklin, Grundy, Lincoln, Moore and Warren counties). Phone survey for this research is done by the Mid-South Survey Research Center, University of Memphis, between July 14 and July 29, 2009.

STUDY FINDINGS

GENERAL CHARACTERISTICS:

The seven-county region, also called LWIA 6, has the following general population characteristics:

-  An estimated 176,090 people over 18 reside in the region.
-  The area labor force is 111,333 with a labor force participation rate of 63.23 percent.
 - ✓ 92,584 people are either employed working for someone/a company or self-employed, 52.58 percent of population over 18.
 - ✓ 18,523 people are unemployed with an unemployment rate of 16.64 as of the mid to late July 2009.



- Overall, one (1) in every three (3) people in the area labor force has an associate degree or above educational attainment.
- An additional 22 percent has some college education without a degree.

AVAILABLE LABOR FORCE:

Available labor force includes several segments of the population over 18: unemployed, underemployed, and all marginally attached.

- An estimated 47,253 people are available for work in the seven-county region.
 - ✓ 18,523 people are **unemployed**.
 - ✓ 18,055 people are **underemployed**.
 - ✓ 10,675 people are **discouraged workers and other marginally attached**.
- 19.50 percent of employed workers are **underemployed** in the region.
- Excluding “all marginally attached” persons, who are not part of the region’s labor force, an estimated 32.86 percent of labor force is potentially available for work.
- Combined all together, potentially available labor force is 39 percent of labor force plus all marginally attached workers.

CHARACTERISTICS OF AVAILABLE LABOR FORCE:

Age, Gender and Education


- 54 percent of underemployed workers are between 18 and 34 years old as opposed to 55 percent of unemployed and 32 percent of all marginally attached.
- Underemployment is prevalent among both males and females almost equally, whereas more males are unemployed, and more females are all marginally attached.
- Underemployed is better educated than unemployed or all marginally attached:
 - ✓ 15.42 percent of underemployed (2,783) has four-year college or above educational attainment as opposed to 7.42 percent of unemployed and 8.2 percent of all marginally attached.
 - ✓ Nearly 30 percent of underemployed has an associate or above educational attainment compared to 10.62 percent of unemployed and 22.56 percent of all marginally attached.

Skilled Trade:

- Nearly 28,000 individuals who are available for work have at least one traded skill, representing about 60 percent of all available labor force.



- ✓ 582 underemployed workers indicated that they have all of the following skills: occupational license, professional certificates, skilled trade, and local job readiness training.
- ✓ 2,500 available workers indicated that they have at least two of the four skills cited above.

 Among the available skilled trade, the following tops the list:

- ✓ 1,324 carpenters
- ✓ 1,035 machinists
- ✓ 754 electricians and engineering technicians
- ✓ 675 automotive service technicians and mechanics
- ✓ 579 welders
- ✓ 449 industrial machinery mechanics

Wage Rate and Mobility:

 Wage expectations of available labor force are not demanding:

- ✓ 6,264 individuals are willing to accept a wage rate less than \$7, below federal minimum wage rate.
- ✓ 14,906 individuals are willing to accept less than \$8.
- ✓ 20,470 individuals (43.47 percent of available labor force) are willing to accept less than \$9.

 Many individuals are willing to commute more than 20 miles for the job they want.

- ✓ 3,165 individuals who are readily available for work are willing to commute more than 50 miles, representing 6.72 percent of available workforce.
- ✓ 11,494 individuals are willing to commute more than 30 miles, representing 24.4 percent of available workforce.
- ✓ 23,674 individuals are willing to commute more than 20 miles for a new job, representing 50.25 percent of available workforce.

CONCLUSION

The study findings suggest that the seven-county region has a significant number of available workforce, many of whom have multiple skills and educational attainment associate degree and beyond. Given the wage rates that available workers are willing to accept for a job, the seven-county region offers a healthy pool of labor force to the prospective businesses or those businesses expanding in the region.



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AVAILABLE LABOR FORCE IN SOUTHERN MIDDLE TENNESSEE:

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I. INTRODUCTION

Conveniently located between the Nashville and Huntsville MSAs, the southern middle Tennessee counties are well positioned for businesses seeking to expand or relocate their operations. Although location itself is a critical asset, for sustainable economic growth the scope and issues related to counties' human capital should be fully analyzed and documented. A review of business expansion and retention literature suggests that availability of labor force for a particular business operation is at the top of concerns in business relocation and expansion decisions. Unfortunately, official data regarding labor force availability presents an incomplete picture of counties' real potential. This report thus goes beyond what is publicly available to provide an in-depth assessment of the available labor force in selected southern middle Tennessee counties.

The Business and Economic Research Center (BERC), Middle Tennessee State University, prepared this report in close cooperation with the industrial development boards of the seven counties in southern middle Tennessee. The phone survey for this study was conducted by Mid-South Survey Research Center, University of Memphis, between July 14 and July 29, 2009.





I.A. Study Region

The study region includes the following seven counties:

-  Bedford
-  Coffee
-  Franklin
-  Grundy
-  Lincoln
-  Moore
-  Warren





Throughout this report, we use the following regional concepts interchangeably:

-  the seven-county region,
-  the study area,
-  the study region, and
-  Local Workforce Investment Area 6 (LWIA 6).

I.B. Study Tasks, Research Questions, and Study Rationale

The goal of this study is to identify and analyze the scope and characteristics of the available labor force in the study area. The study aims to answer the following two major questions:

-  What is the total available labor force defined as “unemployed,” “underemployed,” and “marginally attached”?
-  What are the characteristics of each component of the available labor force?

Understanding and analyzing the scope and characteristics of the available labor force are critically important for southern middle Tennessee counties as they strive to attract new businesses to the area. When a prospective business expresses an interest in relocating to the study area, availability of workforce is one of its main concerns. Official unemployment figures are often not a useful metric for determining the availability of workers.

How can we then measure the available labor force in the study area, and what do we mean by “available labor force”? As further clarified in the methodology section, available labor force includes segments of the population over 18 years old who are “underutilized” in the study area economy. This underutilization manifests itself in many forms; common measures of the extent of underutilization of a region’s productive capacity include the number of “unemployed,” “underemployed,” and “marginally attached.” Underutilization of human capital occurs for a variety of reasons: job loss, economic downturn, structural change in the economy, or existence of barriers to employment.



Identifying the number of underutilized workers and analyzing their characteristics can help the study area economy in three distinct ways:

- 🏡 The area will be able to attract new businesses by demonstrating that they have the necessary business environment to accommodate prospective employers' needs.
- 🏡 Underutilization of human capital is a loss to the area economy; identifying and addressing the causes of underutilization will help the area create sustainable economic growth.
- 🏡 Proper utilization of human capital in the area ensures better-paying jobs and job satisfaction for the labor force, improving economic welfare and mental health.

II. CONCEPTUAL FRAMEWORK AND METHOD OF INQUIRY

The study included three major preliminary works:

- conceptual framework (definitions),
- survey questionnaire design, and
- polling.

II.A. Definitions: Available Labor Force

Available labor force includes several segments of the population. For the purposes of this study, all indicators represent persons aged 18 years and older:

- (A) *Unemployed*: “Persons aged [18] years and older who had no employment during the reference week, were available for work, except for temporary illness, and had made specific efforts to find employment sometime during the 4-week period ending with the reference week” (www.bls.gov).
- (B) *Time-Related Underemployment (visible)*: This category represents persons who are currently employed but
- work part time due to economic and other reasons and are willing and available to work additional hours, and
 - work fewer than certain threshold hours (i.e., 35 hours/week) and are willing and available to work additional hours.
- (C) *Skill and Experience-Related Underemployment (not visible)*: This category represents persons who feel underutilized in their current work. This underutilization occurs in the following ways.
- Their skills and experience do not match what they are doing currently; this group of people is willing to change jobs as soon as possible.

- 🏠 Their educational attainment does not match the requirements and challenges of the jobs they are performing.
- 🏠 Their educational, experience, and skill levels do not match what they are earning from their current jobs.

(D) *Marginally Attached*: Persons who are not in the labor force but are available and willing to work. Discouraged workers are a subset of marginally attached workers who have stopped looking for jobs due to economic conditions. Marginally attached workers also include those persons not in the labor force due to barriers to employment but willing to work.

(E) *Retirees and Students*: These segments of the population are not in the labor force but are willing to work.

Available Labor Force (A+B+C+D+E) is the sum of persons falling under categories A-E and indicating their willingness to work. In any given locality, the available labor force is substantially larger than the number of unemployed as reflected by official workforce data. In addition to these categories, there are also people who are employed but looking for new job opportunities that command higher salaries or benefits. This category of workers is not included in the available labor force.

II.B. Survey Design

The BERCC designed a comprehensive questionnaire to measure the extent of underemployment in the study area. This questionnaire allows us to identify three types of underemployment:

- 🏠 those individuals working below a certain number of hours (i.e., fewer than 35 hours/week) due to economic reasons who are willing to work additional hours (time-related),
- 🏠 those individuals whose earnings per hour are significantly lower than those who have a similar set of skills, experience, and educational attainment and who are willing to change jobs to increase their earnings (wage-related), and

- those individuals whose skill and educational background do not match their current work and who are willing to change jobs for one that matches their educational and skill level (skill-job mismatch).

In addition to these underemployment estimates, this study also looked at certain characteristics of the workforce, including but not limited to

- whether they were recently laid off,
- whether they are currently furloughed, and
- whether they have exhausted their unemployment benefits.

The survey questions are provided in the appendix.

II.C. Polling

A comprehensive survey of the population over age 18 was conducted to determine the number of underutilized workers and their characteristics. Survey sampling and phone calls were done by the Mid-South Survey Research Center, University of Memphis, between July 14 and July 29, 2009. A total of 1,250 individuals residing in the study area were surveyed. The margin of error for the survey is +/-3.5 percent. A complete technical survey report is provided in the study appendix.

II.D. Analysis of Survey Data

Data analysis in this report is done with three-dimensional population weights using 5 percent PUMA data from the American Community Survey 2008 for a southern middle Tennessee PUMA region that includes several of the study area counties. These dimensions are

- age cohort,
- gender, and
- labor force status (in or not in labor force).

III. FINDINGS: AVAILABLE LABOR FORCE AND ITS CHARACTERISTICS

Except for a few cases in which we tabulate the distribution of completed surveys, survey findings throughout this study are presented using population weights. Since our primary concern is the potentially available labor force in the seven-county region, we first focus on this segment of the population and then introduce the rich details of this region's population in the appendix.

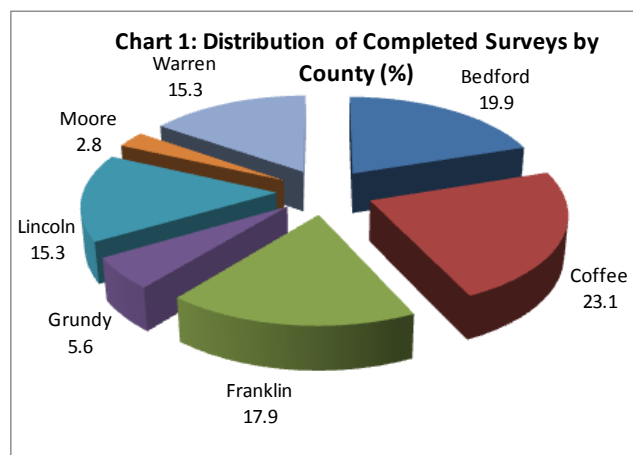
III.A. Surveys Completed

In the survey-sampling process, we paid particular attention to the proportional (based on population) distribution of completed surveys across the seven counties. Table 1 and Chart 1 present the distribution of completed surveys by county. The counties' percentages mimic closely their population shares in the study region.

Three counties—Coffee, Bedford, and Franklin—represent nearly 60 percent of the surveys completed. Lincoln and Warren counties are next, each with an equal share of 15.3 percent. Total surveys completed totaled 1,250. After cleaning up incomplete surveys, we end up with 1,234 usable surveys for this study. The sample size is quite large at the regional level. This allows us to perform an in-depth assessment of labor force characteristics in the study region.

Table 1: Distribution of Completed Surveys by County

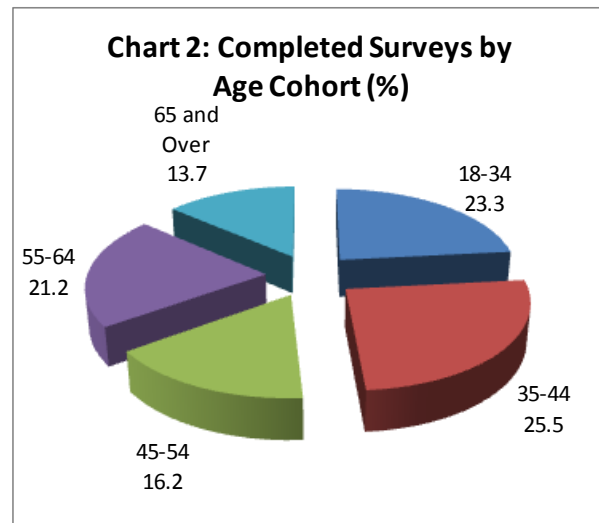
County	Frequency	Percent
Bedford	246	19.9
Coffee	285	23.1
Franklin	221	17.9
Grundy	69	5.6
Lincoln	189	15.3
Moore	35	2.8
Warren	189	15.3
Total	1,234	100.0



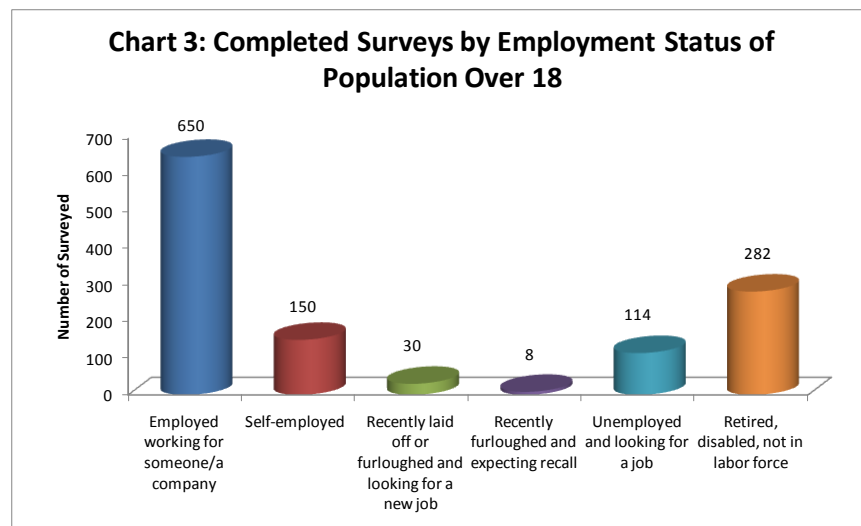
Age Cohort. Age cohort by gender is used during the sampling process to get an accurate representation of the characteristics of the area population over 18. Table 2 and Chart 2 present the completed surveys by age cohort. The population over 18 is divided into five age cohorts. This study targets the population over 18 rather than 16, as is the case in Current Population Surveys, in order to avoid the lengthy process of surveying minors.

Table 2: Completed Surveys by Age Cohort

Age Cohort	Frequency	Percent
18-34	288	23.3
35-44	315	25.5
45-54	200	16.2
55-64	262	21.2
65 and Over	169	13.7
Total	1,234	100.0



Employment Status. The survey's target population was the employed labor force. Interviewers continued interviewing until they completed 800 surveys of employed workers. Employed labor force includes both the self-employed and those working for someone/a company. Chart 3 includes distribution of the completed surveys by employment status.



III.B. Population Characteristics

Population and Labor Force. As of July 2009, the estimated population over 18 in the region is 176,090, of which 111,333 are in the labor force. The estimated labor force participation rate is 63.23 percent for the entire population (Table 3). Gender breakdown suggests some gaps in the participation rate: 71.38 percent for males and 55.59 percent for females. These participation rates are somewhat lower than the corresponding U.S. rates for the given month: 66.2 percent for all, 73 for males, and 59.9 for females (www.bls.gov). When comparing with the U.S. and state level rates, one caveat is in order: the population universe in this study represents all individuals over 18, whereas the population universe in the BLS estimates is the population over 16.

Labor Force = the sum of (1) people who are currently working and (2) people who are not working but currently looking for a job.

Labor Force Participation Rate = percent of the population that is in the labor force.

Employment-Population Ratio = percent of the population that is employed.

Table 3: Characteristics of Population Over 18 in LWIA 6

	Gender		Total
	Male	Female	
Labor Force	60,769	50,564	111,333
Not in Labor Force	24,366	40,391	64,757
Total	85,135	90,955	176,090
<i>Labor Force Participation Rate (%)</i>	71.38	55.59	63.23
Employed	50,914	41,670	92,584
<i>Employment-Population Ratio (%)</i>	59.80	45.81	52.58

The employment-population ratio is 52.58 percent for the entire population in the region. This ratio is significantly lower for females (45.81 percent) than for males (59.80 percent). Comparable ratios from the U.S. indicate a nearly nine percentage point difference in the employment-population ratio for females: 54.4 percent in the U.S. versus 45.81 percent in the study region. Overall, employment-population ratios in the region are significantly lower than the U.S. ratios (59.8 percent for all and 65.6 percent for males).

Population, Age Cohort, and Labor Force Status. Table 4 below presents the region's population over 18 by age cohort and labor force status. Not surprisingly, the largest labor force participation rate is among the 35-44 and 45-54 age cohorts. The participation rate among those who are at retirement age and above is the lowest with 13.15 percent.

Table 4. Population Characteristics: Age Cohort by Employment Status

Age Cohorts	Labor Force Status		Total	Labor Force Participation Rate
	In Labor Force	Not in Labor Force		
18-34	38,361	12,348	50,709	75.65
35-44	25,463	5,230	30,693	82.96
45-54	25,176	7,426	32,602	77.22
55-64	17,716	9,261	26,977	65.67
65 and Over	4,617	30,492	35,109	13.15
Total	111,333	64,757	176,090	63.23

Population, Educational Attainment, and Labor Force Status. The educational attainment level of the population over 18 is presented in Table 5. Nearly 52 percent of the population have educational attainment of high school or below, about 27 percent have some college or associate degree, and nearly 20 percent have college and above. As the educational attainment level increases, so does the labor force participation rate. The lowest labor force participation rate is among those with less than high school educational attainment (40.73 percent).



Table 5. Population Characteristics: Educational Attainment by Employment Status (Population over 18)

Educational Attainment	Labor Force Status		Population over 18		Labor Force Participation Rate (%)
	In Labor Force	Not in Labor Force	Number	Percent (%)	
Less than high school	9,954	14,482	24,436	13.98	40.73
High school (and GED)	42,452	23,895	66,347	37.96	63.98
Some college but no degree	24,399	13,192	37,591	21.51	64.91
Associate degree	7,882	4,173	12,055	6.90	65.38
Four-year college, bachelor's degree	16,845	5,870	22,715	13.00	74.16
Postgraduate/master's	9,271	2,358	11,629	6.65	79.72

III.C. Available Labor Force in the Seven-County Region

What is the available labor pool for a company relocating to or expanding in the study region? In other words, what is the rate of underutilization of the study area labor force? Knowing and addressing the causes of underutilization of the labor force can benefit both the study area economy in general and the individuals involved in particular: sustainable economic growth and better paying jobs are possible with proper utilization of the region's human capital.

In measuring the available labor force, we used several interrelated questions in the survey. Based on the review of literature and survey findings, we identified several segments of the population that represent the "potentially available labor force" in the study region. These are

-  Unemployed
-  Underemployed
 - Time-related underemployment
 - Workers whose job is a mismatch with their education, experience, and skill (job-skill mismatch)
 - Workers whose wage level is significantly lower than what a job with similar educational and experience levels commands (wage-related job shifters)
 - Workers who are willing to change their jobs even if the new job pays about the same wage as their current job (job shifters)

Segments of Potentially Available Labor Force

(A) *Unemployed = Persons who are not working but currently looking for a job.*

(B) *Time-related underemployment = (1) work part time for economic reasons but willing and available to work additional hours, and (2) work fewer than 35 hours for whatever reason but willing and available to work additional hours.*

(C) *Skill and experience related underemployment = Those individuals who are employed full time but feel underutilized in their current jobs and willing to change their current jobs for a better one (for reasons including skill-job mismatch, wages, work environment, etc.)*

(D) *Marginally attached = Persons who are not in the labor force but are available and willing to work, including (1) discouraged workers and (2) workers facing barriers to employment.*

(E) *Retirees and students = These segments of the population are not in the labor force but are available and willing to reenter it; economic hardship plays an especially important role in their decisions.*

- Marginally attached workers
 - Discouraged workers
 - Other marginally attached workers

According to survey results, the total potentially available labor force in the region is 47,253. An estimated 18,055 people may be considered *underemployed*, as they are willing to change their current jobs and are actively looking for a new job. Underemployment is 19.5 percent of total employment in the study region. Analysis of the survey data shows that the unemployment rate in the seven-county region is 16.64 percent, slightly higher than the official unemployment rate of nearly 13 percent for the region for July 2009. However, the survey results are very much within the survey margin of error of +/-3.5.

Table 6. Potentially Available Labor Force: LWIA 6

Segments of Population	Number
Labor Force	
(A) <i>Unemployed</i>	18,523
(B) <i>Underemployed (1+2+3+4)</i>	18,055
(1) Part-Time for Economic Reasons Looking for Job	4,044
(2) Part-Time for Other Reasons Looking for Job	4,556
(3) Full-Time, Looking for and Willing to Change Job	4,737
(4) Full-Time, Skill, Education, Experience Mismatch and Willing to Change Job	4,718
Not in Labor Force	
(C) <i>Discouraged Workers</i>	1,199
(D) <i>Other Marginally Attached</i>	9,476
Total Available Labor Force (A+B+C+D)	47,253
Total Labor Force Plus Discouraged Workers and Other Marginally Attached	122,008
<i>Percent of Available Labor Force as Percent of Labor Force Plus All Marginally Attached</i>	38.73%
<i>Underemployment as Percent of Total Employment</i>	19.50%
<i>Underemployment as Percent of Labor Force</i>	16.22%
<i>Unemployment as Percent of Labor Force</i>	16.64%

When we take into account unemployment and underemployment together, the potentially available workforce is 32.86 percent of the region's labor force. In addition to unemployment and underemployment, 10,675 people are not officially part of the labor force but are willing to enter it as of July 2009. Some of these individuals are discouraged workers who think there are no jobs out there for them. Other marginally attached workers include a wide range of individuals not looking for a job due to a variety of reasons but willing to enter the

job market if they can find a suitable job. Combined, nearly 39 percent of the expanded labor force (labor force plus marginally attached) may be considered a “potentially available labor force” for businesses who seek to relocate to or expand in the region.

To present some of the concepts from a comparative perspective, Table 7 looks at the U.S. figures in certain segments of labor force underutilization. Compared with the U.S., labor force underutilization rates are significantly higher in the study region. The large differences are not surprising given the fact that the region has lost disproportionately more jobs due to its heavy reliance on the manufacturing sector over the years. However, from a different perspective, the region is better positioned than the average U.S. region to meet the workforce needs of a potential investor.

Table 7. Underutilization from a Comparative Perspective

Segment	U.S.	LWIA 6
U-3 Total unemployed persons as a percent of civilian labor force	9.70%	16.64%
U-4 Total unemployed plus discouraged workers, as percent of the civilian labor force plus discouraged workers	10.20%	17.53%
U-5 Total unemployed, plus all "marginally attached" workers, as a percent of the civilian labor force plus all "marginally attached" workers	11.00%	23.93%
U-6 Total unemployed, plus all "marginally attached," plus all persons employed part time for economic reasons, as a percent of the civilian labor force plus all "marginally attached" workers	16.80%	27.25%

A note on comparison: the measurement for the U.S. is slightly different than the estimates in this study: the U.S. estimates are based on population over 16, whereas the LWIA 6 estimates are based on population over 18. These estimates include only components of the potentially available workforce in Table 6 that are comparable. Several categories of underemployment in Table 6 are not included here.

III.D. Characteristics of Potentially Available Labor Force in the Seven-County Region

General Characteristics. Table 8 presents some general characteristics of the potentially available labor force in the study region. More than 50 percent of the underemployed and unemployed workforce belongs to the youngest age cohort, 18-34. This suggests the presence of a dynamic, young labor force available for work if the opportunities arise. Marginally attached workers are concentrated in Coffee and Lincoln counties, underemployed in Coffee County, and unemployed in Bedford County. The marginally attached workers are primarily female, while underemployed and unemployed are largely male.

Table 8. Characteristics of the Potentially Available Labor Force: LWIA 6

Age Cohort	All Marginally Attached		Employed		Underemployed		Unemployed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
18-34	3,416	32.00%	18,231	24.46%	9,775	54.14%	10,208	55.11%	41,630
35-44	1,913	17.92%	18,079	24.26%	3,916	21.69%	3,389	18.30%	27,297
45-54	2,286	21.41%	19,968	26.79%	2,374	13.15%	2,834	15.30%	27,462
55-64	2,008	18.81%	14,306	19.20%	1,450	8.03%	1,960	10.58%	19,724
65 and Over	1,052	9.85%	3,945	5.29%	540	2.99%	132	0.71%	5,669
Total	10,675	100.00%	74,529	100.00%	18,055	100.00%	18,523	100.00%	121,782
County	All Marginally Attached		Employed		Underemployed		Unemployed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Bedford	875	8.20%	13,862	18.60%	3,542	19.62%	4,279	23.10%	22,558
Coffee	2,636	24.69%	16,784	22.52%	4,408	24.41%	3,472	18.74%	27,300
Franklin	955	8.95%	17,685	23.73%	3,357	18.59%	2,697	14.56%	24,694
Grundy	1,875	17.56%	2,488	3.34%	687	3.81%	1,906	10.29%	6,956
Lincoln	2,801	26.24%	10,276	13.79%	2,871	15.90%	3,286	17.74%	19,234
Moore	183	1.71%	2,463	3.30%	448	2.48%	371	2.00%	3,465
Warren	1,350	12.65%	10,971	14.72%	2,742	15.19%	2,512	13.56%	17,575
Total	10,675	100.00%	74,529	100.00%	18,055	100.00%	18,523	100.00%	121,782
Gender	All Marginally Attached		Employed		Underemployed		Unemployed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Male	2,743	25.70%	41,651	55.89%	9,263	51.30%	9,855	53.20%	63,512
Female	7,932	74.30%	32,878	44.11%	8,792	48.70%	8,668	46.80%	58,270
Total	10,675	100.00%	74,529	100.00%	18,055	100.00%	18,523	100.00%	121,782

Educational Attainment. The educational attainment level of the available workforce is perhaps one of the most important qualities that may affect a company's relocation decision. What are the educational qualities of the available workforce in the seven-county region? Table 9 presents a detailed tabulation of educational attainment level by segments of the available workforce.

A look at the educational makeup of each segment of the available workforce makes it clear that level of education is closely related to one's chance of getting employed. Overall, underemployed and marginally attached workers are better educated than unemployed workers.

Overall, one-fifth of the available workforce has an education level equal to or higher than associate degree. These groups of the available workforce represent nearly 10,000 individuals in the seven-county region. As is clear from Table 9, nearly one-third of the underemployed have educational attainment equal to or higher than associate degree. The number of underemployed individuals with an associate degree and above is about 5,200.

From a workforce training perspective, the most vulnerable segment of the available workforce is the unemployed; more than 65 percent of unemployed persons have educational attainment of high school or below. Obviously, these individuals need additional training to be competitive in an increasingly demanding job environment.

Table 9. Characteristics of the Potentially Available Labor Force in LWIA 6: Educational Attainment

Educational Attainment	All Marginally Attached		Employed		Underemployed		Unemployed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Less than high school	996	9.33%	5,693	7.64%	1,949	10.79%	2,312	12.48%	10,950
High school (and GED)	4,237	39.69%	25,734	34.53%	7,009	38.82%	9,709	52.42%	46,689
Some college but no degree	3,034	28.42%	15,862	21.28%	3,855	21.35%	4,535	24.48%	27,286
Associate Degree	1,552	14.54%	4,831	6.48%	2,459	13.62%	592	3.20%	9,434
Four-year college, bachelor's degree	649	6.08%	13,861	18.60%	2,197	12.17%	787	4.25%	17,494
Postgraduate/master's	207	1.94%	8,018	10.76%	586	3.25%	588	3.17%	9,399
Don't know/refused	0	0.00%	530	0.71%	0	0.00%	0	0.00%	530
Total	10,675	100.00%	74,529	100.00%	18,055	100.00%	18,523	100.00%	121,782

Education and Skill Combination. When we further examine the educational attainment data, we will be able to pinpoint specific areas that are critically important for business recruitment purposes: according to Table 10, nearly 41 percent of the potentially available workforce has either an educational level at and above associate degree or a combination of both high educational attainment and skill. This group represents more than 19,000 individuals. A significant portion of the available workforce may need additional training or education to position them in a competitive labor market. The areas that may generate some concerns are circled in red in Table 10.

Table 10. Characteristics of the Potentially Available Labor Force in LWIA 6: Educational Attainment and Skilled Trade

Educational Attainment with a Skilled Trade	All Marginally Attached		Employed		Underemployed		Unemployed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Less than high school	114	4.73%	1,458	7.33%	641	12.13%	741	17.50%	2,954
High school (and GED)	1,206	50.06%	8,109	40.79%	1,742	32.96%	2,058	48.61%	13,115
Some college but no degree	605	25.11%	5,842	29.38%	1,287	24.35%	1,293	30.54%	9,027
Associate Degree	163	6.77%	1,812	9.11%	786	14.87%	0	0.00%	2,761
Four-year college, bachelor's degree	321	13.33%	1,517	7.63%	635	12.02%	142	3.35%	2,615
Postgraduate/master's	0	0.00%	996	5.01%	194	3.67%	0	0.00%	1,190
Don't know/refused	0	0.00%	147	0.74%	0	0.00%	0	0.00%	147
Total	2,409	100.00%	19,881	100.00%	5,285	100.00%	4,234	100.00%	31,809
Educational Attainment Without a Skilled Trade	All Marginally Attached		Employed		Underemployed		Unemployed		Total
	Number	Percent	Number	Percent	Number	Percent	Number	Percent	
Less than high school	882	10.67%	4,235	7.75%	1,308	10.24%	1,571	10.99%	7,996
High school (and GED)	3,031	36.67%	17,625	32.25%	5,267	41.25%	7,651	53.54%	33,574
Some college but no degree	2,429	29.39%	10,020	18.34%	2,568	20.11%	3,242	22.69%	18,259
Associate Degree	1,389	16.80%	3,019	5.52%	1,673	13.10%	592	4.14%	6,673
Four-year college, bachelor's degree	328	3.97%	12,344	22.59%	1,562	12.23%	645	4.51%	14,879
Postgraduate/master's	207	2.50%	7,022	12.85%	392	3.07%	588	4.12%	8,209
Don't know/refused	0	0.00%	383	0.70%	0	0.00%	0	0.00%	383
Total	8,266	100.00%	54,648	100.00%	12,770	100.00%	14,289	100.00%	89,973

Skill Combination of Available Workforce. According to Table 11, nearly 28,000 individuals available for a job indicated that they have one or multiple skills. The percent of available workforce with a skill is well over 60 percent for the underemployed and marginally attached and over 50 percent for the unemployed. Some observations from Table 11 are that

- 581 underemployed workers indicated they have all four skills,
- 867 available workers indicated they have three of the four skills, and
- nearly 2,500 available workers indicated they have at least two of the four skills cited.

An important discrepancy between Tables 10 and 11 is that when asked whether the respondent has a skilled trade, many answered no. However, when interviewers continued to ask about specific skill sets, the respondents indicated they have those skills. Table 11 represents unfiltered findings from the survey.

Table 11. Skill Combination of Available Workforce: LWIA 6

	All Marginally				Skill Total
	Attached	Employed	Underemployed	Unemployed	
Occupational License	183	6,543	1,190	832	8,748
Professional Certificates	2,348	15,976	1,789	1,655	21,768
Occupational License & Professional Certificates	0	2,117	492	184	2,793
Skilled Trade	1,925	13,541	3,899	2,920	22,285
Occupational License & Skilled Trade	163	904	145	0	1,212
Professional Certificates & Skilled Trade	0	1,233	237	534	2,004
Occupational License & Professional Certificates & Skilled Trade	0	1,566	287	0	1,853
Local Job Readiness Training	1,815	6,545	2,274	2,966	13,600
Occupational License & Local Job Readiness Training	0	92	239	101	432
Professional Certificates & Local Job Readiness Training	0	485	0	79	564
Occupational License & Professional Certificates & Local Job Readiness Training	0	0	0	79	79
Skilled Trade & Local Job Readiness Training	114	682	0	251	1,047
Professional Certificates & Skilled Trade & Local Job Readiness Training	207	396	294	0	897
Occupational License & Professional Certificates & Skilled Trade & Local Job Readiness Training	0	691	581	0	1,272
Segment Total	6,755	50,771	11,427	9,601	78,554
Available Workforce Segment Total	10,645	74,529	18,055	18,553	121,782
Percent of Each Segment with a Skilled Trade	63.46%	68.12%	63.29%	51.75%	64.50%

Specific Skilled Trade. We also wanted to know what categories of skilled trade best describe the respondents' skill set. Table 12 presents available specific skill sets in the study region.

Workers in the top skill sets include

- 1,324 carpenters,
- 1,035 machinists,

- 754 electricians and engineering technicians,
- 675 automotive service technicians and mechanics,
- 599 workers in nursing-related occupations,
- 579 welders,
- 449 industrial machinery mechanics, and
- 437 information technology workers.

Table 12. Specific Skill Set of Available Workforce

	All Marginally				Total
	Attached	Employed	Underemployed	Unemployed	
Electricians/Engineering technicians	0	4,903	307	447	5,657
Carpenter	0	1,288	985	339	2,612
Machinists	114	1,397	779	142	2,432
Automotive service technicians and mechanics	284	1,410	101	290	2,085
Industrial machinery mechanics	0	1,011	145	304	1,460
Welders	478	464	101	0	1,043
Construction	114	578	0	246	938
Nursing-related	163	318	436	0	917
Machine operator	163	667	0	79	909
Administrator	0	385	0	289	674
Truck driver	0	404	145	101	650
IT	0	202	292	145	639
Heating and AC	0	449	0	159	608
Tool and dye makers	114	145	0	147	406
Plumbers, pipefitters, and steamfitters	0	194	101	0	295
Inspectors and testers	0	261	0	0	261
Other:	979	5,805	1,893	1,546	10,223

Wage Rate and Mobility. Table 13 presents the lowest wage rates for different segments of the labor force willing to reenter the workforce, change their current job, or work. In general,

- 6,264 individuals are willing to accept less than \$7 for a new job (13.3 percent of the available workforce),

- 14,906 individuals are willing to accept less than \$8 for a new job (31.66 percent of the available workforce),
- 20,470 individuals are willing to accept less than \$9 for a new job (43.47 percent of the available workforce), and
- a wage rate of less than \$11 can mobilize 30,327 individuals for a new job, representing 64.38 percent of the available workforce.

As clearly seen in Table 13, a significant number of “employed individuals” are willing to change their current job for a wage rate of less than \$8. We did not include these workers in the “available labor force” because they did not indicate that they are looking for a new, better job.

Table 13. Lowest Wage Rate to Change Job/Reenter Workforce/Willing to Work

Proposed Wage Rate	All Marginally Attached	Employed	Underemployed	Unemployed
	(Lowest Wage for You to Consider Working Again)	(Lowest Wage Rate You are Willing to Accept to Change Your Current Job)	(Lowest Wage Rate You are Willing to Accept to Change Your Current Job)	(Lowest Wage Rate You are Currently Willing to Work)
\$6.00-\$6.99	1,764	2,236	2,234	2,266
\$7.00-\$7.99	1,087	664	1,634	5,921
\$8.00-\$8.99	1,584	788	1,732	2,248
\$9.00-\$9.99	242	602	1,408	1,275
\$10.00-\$10.99	1,363	1,984	2,537	3,032
\$11.00-\$11.99	0	369	1,278	233
\$12.00-\$12.99	785	2,097	1,380	1,124
\$13.00-\$13.99	651	566	226	0
\$14.00-\$14.99	121	1,078	101	285
\$15.00-\$15.99	828	2,410	953	798
\$16.00-\$16.99	114	181	407	92
\$17.00-\$17.99	0	470	180	101
\$18.00-\$18.99	0	694	238	397
\$19.00-\$19.99	0	243	0	101
\$20 or over	550	7,553	1,665	345
Refused	1,586	3,383	1,935	305

How far are these individuals willing to commute for the wage rates given in Table 13? Many available workers are willing to commute more than 20 miles to accept to job they want.

Table 14 shows the preferred commuting distance for each segment of available workforce. Some observations from Table 14 are that

- 3,165 individuals are willing to commute more than 50 miles for the job they want, representing 6.72 percent of the available workforce;
- 11,494 individuals are willing to commute more than 30 miles for a new job, representing 24.4 percent of the available workforce; and
- 23,674 individuals are willing to commute more than 20 miles for a new job, representing 50.25 percent of the available workforce.

Table 14. Available Labor Force and Willingness to Commute

	All Marginally			
	Attached	Employed	Underemployed	Unemployed
0-5 miles	1,607	15,455	1,971	1,335
6-10 miles	2,667	2,944	1,214	1,427
11-20 miles	2,274	6,743	4,260	3,833
21-30 miles	1,764	9,777	5,044	5,372
31-50 miles	1,640	7,594	2,947	3,742
More than 50 miles	163	6,100	1,213	1,789
Don't know	439	3,493	779	799
Refused	121	5,284	482	226

III.E. Specific Case Studies: Characteristics of the Underemployed

What are the specific characteristics of the underemployed? Where do these individuals work? What do they do? How many hours do they work? How much per hour are they earning? Where do they live and work? This section briefly looks at these characteristics of the underemployed. Some major characteristics as presented in Table 15 are that

- 53.4 percent are married;
- on average, two people are living in the house (including the respondent);
- more than 15 percent are living alone; and
- more than 90 percent have only one job.

Table 15. Characteristics of Underemployed Workforce in LWIA 6

Are you currently married?		
	Number	Percent
Yes	9,642	53.4
No	8,413	46.6
How many other people are living in this house?		
	Number	Percent
None	2,742	15.2
1	8,407	46.6
2	4,670	25.9
3	1,959	10.9
4 or more	211	1.2
Refused	66	0.4
How many jobs do you currently have?		
	Number	Percent
1	16,316	90.4
2 or more	1,739	9.6

Table 16 shows the job characteristics of the underemployed in the seven-county region.

Nearly 48 percent of the underemployed are working less than 35 hours per week. We define this segment as part-time workers.

Nearly half of these part-time workers are working part time due to either

Table 16. Characteristics of Underemployed in LWIA 6: Job Characteristics

On average, how many hours a week do you currently work?		
	Number	Percent
Less than 35 hours	8,600	47.63
More than 35 hours	9,455	52.40
If less than 35 hours, what is the main reason you work less than 35 hours?		
	Number	Percent
Slack work/business conditions	4,191	48.73%
Seasonal work	448	5.21%
Health reasons	92	1.07%
Child care	226	2.63%
School/training	812	9.44%
Other family obligations	158	1.84%
Social security limit on earnings	204	2.37%
Don't want to/don't have to	1,371	15.94%
Other reasons	1,098	12.77%

business conditions or seasonal work. While barriers to employment play an important role for many, nearly 16 percent choose to work part time.

How long have they been working at their current jobs? Do their jobs fit well with their backgrounds? If they don't, what are the reasons? Did they look for a better job in the past three months? Table 17 provides a detailed perspective on these questions.

Table 17. Characteristics of Underemployed in LWIA 6: Job Tenure, Job Fit, Reasons & Job Hunt

How long have you been working in your current job?		
	Number	Percent
Less than 1 year	4,714	26.10
1 to 3 years	4,770	26.40
3 to 5 years	2,706	15.00
5 to 10 years	2,986	16.50
10 to 20 years	1,988	11.00
More than 20 years	891	4.90
Does your current job fit well with your education, skill, training, and experiences?		
	Number	Percent
Yes	11,885	65.80
No	5,817	32.20
Don't know/refused	353	2.00
If it does not fit well, is it because of your ...		
	Yes	
<i>Education?</i>	2,687	
<i>Training?</i>	1,912	
<i>Skill?</i>	1,991	
<i>Experience?</i>	2,126	
Have you looked for a better job in the last three (3) months?		
	Number	Percent
Yes	9,853	55.01%
No	8,057	44.99%

More than half of the underemployed have been at their current jobs less than three years. However, it is interesting to note that some individuals have been working more than 10 years at their current jobs but are looking for other job opportunities. In terms of job skill and education mismatch, a little over 32 percent of underemployed individuals indicated a mismatch. More than half of those who think there is a mismatch gave education as a reason. Closely following education are experience, skill, and training. More than 55 percent of underemployed individuals looked for a better job in the past three months.

How far do underemployed individuals travel? How much do they earn? What is the rate and commuting distance they are willing to accept to change their current jobs? Where do they live and work? As Table 18 shows, one in every two underemployed individuals earns less than \$11 per hour. About 10 percent of those earning less than \$11 per hour commute more than 11 miles.

Table 18. Characteristics of Underemployed: Current Commuting Distance and Average Wage (LWIA 6)

Average wage	Current Commuting Distance						Don't know	Refused
	0-5 miles	6-10 miles	11-20 miles	21-30 miles	31-50 miles	More than 50 miles		
\$6.99 or less	755	289	224	145	142	0	0	0
\$7.00-\$7.99	915	686	459	0	292	0	0	0
\$8.00-\$8.99	965	845	620	145	101	0	0	0
\$9.00-\$9.99	518	238	495	145	0	0	0	0
\$10.00-\$10.99	226	486	550	221	147	0	0	0
\$11.00-\$11.99	0	316	158	101	0	0	0	0
\$12.00-\$12.99	469	145	213	145	0	246	0	0
\$13.00-\$13.99	0	0	0	202	0	0	0	0
\$14.00-\$14.99	0	0	249	145	142	247	0	0
\$15.00-\$15.99	0	142	303	180	0	184	0	0
\$16.00-\$16.99	0	0	358	145	0	92	0	0
\$17.00-\$17.99	0	0	0	0	0	246	0	0
\$19.00-\$19.99	0	0	142	0	0	0	0	0
\$20 or over	874	391	159	159	79	352	0	0
Refused	246	776	145	145	159	0	145	246

It is interesting to note that nearly 50 percent of the underemployed individuals are willing to change their jobs for a wage rate of less than \$11. There are even those who are willing to travel more than 50 miles for a wage rate less than \$9.

Table 19. Characteristics of Underemployed: Wage Rate and Commuting Distance for a Better New Job (LWIA 6)

Average wage willing to accept	Distance Willing to Commute							Don't know	Refused
	0-5 miles	6-10 miles	11-20 miles	21-30 miles	31-50 miles	More than 50 miles			
\$6.99 or less	66	0	434	1408	247	79	0	0	
\$7.00-\$7.99	676	248	608	0	0	102	0	0	
\$8.00-\$8.99	79	248	595	145	373	292	0	0	
\$9.00-\$9.99	102	101	171	595	439	0	0	0	
\$10.00-\$10.99	393	224	371	892	370	0	145	142	
\$11.00-\$11.99	0	0	795	338	0	145	0	0	
\$12.00-\$12.99	0	0	243	525	325	0	287	0	
\$13.00-\$13.99	0	0	0	79	0	147	0	0	
\$14.00-\$14.99	0	0	0	101	0	0	0	0	
\$15.00-\$15.99	92	0	142	147	471	101	0	0	
\$16.00-\$16.99	0	0	147	0	159	0	101	0	
\$17.00-\$17.99	0	0	0	0	79	101	0	0	
\$18.00-\$18.99	0	0	0	238	0	0	0	0	
\$20 or over	102	248	462	224	484	0	145	0	
Refused	314	145	292	352	0	246	101	340	

Many of the underemployed work where they live, as the shaded area in Table 20 shows.

Table 20. Characteristics of Underemployed (LWIA 6): Resident County versus Work County

Work County	County Where Underemployed Lives						
	Bedford	Coffee	Franklin	Grundy	Lincoln	Moore	Warren
Bedford	2,024	0	0	0	101	0	0
Coffee	292	3,465	784	292	0	159	79
Franklin	306	248	2,426	0	0	0	0
Grundy	0	0	0	395	0	0	0
Lincoln	0	147	0	0	2,018	0	102
Moore	0	142	0	0	0	147	145
Warren	0	0	0	0	0	0	2,143
Davidson	246	105	0	0	0	0	0
Rutherford	529	301	0	0	0	0	92
Alabama	0	0	0	0	492	0	0
Marshall	145	0	0	0	260	0	0
Other-TN	0	0	147	0	0	142	181

The underemployed primarily work in the following major sectors (Table 21):






-  health care and social assistance,
-  accommodation and food services,
-  manufacturing,
-  construction, and
-  wholesale trade.

Table 21. Characteristics of Underemployed (LWIA 6): Employment by Sector		Frequency Percent	
Agriculture, Forestry, Fishing and Hunting		224	1.24
Construction		2,022	11.20
Food, Beverage, Textile, Leather and Allied Product Manufacturing		459	2.54
Paper, Petroleum and Coal, Chemical, Plastics, and Nonmetallic Mineral Product Manufacturing		538	2.98
Primary and Fabricated Metal, Computer and Electronic Product, Transportation Equipment, Furniture, and Miscellaneous Manufacturing		2,048	11.34
Wholesale Trade		1,571	8.70
Retail Trade: Motor Vehicle, Building, Food, Health, Gas, and Clothing		885	4.90
Transportation: Air, Rail, Water, Truck, Pipeline, Transit, Scenic and Support Services		666	3.69
Information		145	0.80
Finance and Insurance		294	1.63
Real Estate and Rental and Leasing		244	1.35
Professional and Technical Services		393	2.18
Administrative and Waste Services		470	2.60
Educational Services		1,454	8.05
Health Care and Social Assistance		2,470	13.68
Arts, Entertainment, and Recreation		145	0.80
Accommodation and Food Services		2,289	12.68
Other Services, Except Public Administration		898	4.97
Public Administration		673	3.73
Missing		167	0.92
Total		18,055	100.00

Table 22 tabulates underemployment by major occupational categories. Major highlights from the table indicate that, by category,






-  2,977 of the underemployed are in production occupations,
-  2,800 are in office and administrative support occupations,
-  1,619 are in food preparation and serving-related occupations,
-  1,517 are in health care practitioner or support occupations, and
-  1,343 are in transportation and material moving occupations.

Table 22. Characteristics of Underemployed: Employment by Occupation

	Frequency	Percent
Management Occupations	449	2.49
Business and Financial Operations Occupations	469	2.60
Architecture and Engineering Occupations	349	1.93
Life, Physical, and Social Science Occupations	101	0.56
Community and Social Services Occupations	145	0.80
Legal Occupations	142	0.79
Education, Training, and Library Occupations	1,317	7.29
Arts, Design, Entertainment, Sports, and Media Occupations	211	1.17
Healthcare Practitioners and Technical Occupations	1,517	8.40
Healthcare Support Occupations	436	2.41
Protective Service Occupations	102	0.56
Food Preparation and Serving Related Occupations	1,619	8.97
Building and Grounds Cleaning and Maintenance Occupations	579	3.21
Personal Care and Service Occupations	294	1.63
Sales and Related Occupations	1,479	8.19
Office and Administrative Support Occupations	2,800	15.51
Farming, Fishing, and Forestry Occupations	145	0.80
Construction and Extraction Occupations	448	2.48
Installation, Maintenance, and Repair Occupations	986	5.46
Production Occupations	2,977	16.49
Transportation and Material Moving Occupations	1,343	7.44
Missing	147	0.81
Total	18,055	100.00

III.F. Specific Case Studies: Characteristics of the Unemployed

Marital status, household size, last job, and characteristics of last job. This section briefly introduces the characteristics of the unemployed workforce not treated elsewhere. General traits of the unemployed including, among others, marital status, household size, and the characteristics of their last jobs, will be analyzed. According to Table 23, nearly 56 percent of the 18,500 unemployed individuals are single. Household size of half of the unemployed population is 1 to 2 people, including the respondent.

In terms of the last job they held, two in every five unemployed, a total of 7,454 individuals, lost their jobs within the past six months. For 35 percent of the unemployed, the employment spell has been long, more than 12 months.

Nearly 80 percent of the unemployed individuals indicated that their last job was full time. These indicators reflect two obvious trends in the regional economy: structural change in the economy, as the long spell of unemployment for nearly 6,500 suggests, and economic downturn, as recent massive layoff figures such as 7,500 job losses within six months indicate.

Unemployment benefits, reasons for not working. The survey asked specific questions regarding respondents' reasons for not working and specific business conditions that affect their employment status. Table 24 provides a detailed picture of such conditions.

One-fifth of the unemployed, or 3,700 people, indicated they had exhausted their unemployment benefits. Nearly 71 percent indicated they had not. About one-tenth of the unemployed declined to answer this question.

Table 23. Characteristics of Unemployed in LWIA 6: Marital Status, Household Size, Characteristics of Last Job

Marital status:	Number	Percent
Married	8,169	44.10
Single	10,354	55.90
Household Size: How many additional people		
	Number	Percent
None	2,605	14.10
1	6,841	36.90
2	5,083	27.40
3	2,756	14.90
4 or more	1,229	6.60
When did you last work at a job or business?		
	Number	Percent
Within the last 6 months	7,454	40.20
6-12 months	4,305	23.20
More than 12 months ago	6,458	34.90
Don't know/refused	306	1.70
Was your last job a full-time job?		
	Number	Percent
Yes	14,460	78.10
No	3,918	21.20
Refused	145	0.80

What is the primary reason for not working? As anticipated, an overwhelming number of responses centered on economic conditions. A little more than two-thirds of the unemployed, or 12,548 people, cited either “slack work or business conditions” or “no jobs” as reasons for not working. Barriers to employment are also cited as major reasons by 3,050 unemployed people, or 16.5 percent of the unemployed.

Table 24. Characteristics of Unemployed in LWIA 6: Unemployment Benefits, Reasons for Not Working

Have you exhausted your unemployment benefits?			What specific business and economic conditions affected your decision for not looking for a job?		
	Number	Percent		Number	percent
Yes	3,700	20.00	No work available in my line of work	3,036	16.39
No	13,127	70.90	Couldn't find any work	9,365	50.56
Don't know/refused	1,696	9.20			
What is the main reason you are not currently working?				Number	percent
	Number	Percent	Don't have necessary skills/training	868	4.69
Health conditions	912	4.92	Wages are too low	350	1.89
Disability	463	2.50	Better jobs are far from where I live	818	4.42
In school	1,778	9.60	Unsatisfactory work arrangements	366	1.98
Family responsibilities	1,112	6.00	Work environment	246	1.33
Slack work or business condition:	11,093	59.89	Other	3,168	17.10
No jobs	1,455	7.86	Refused	306	1.65
Transportation problems	563	3.04			
Other	551	2.98			
Don't know	290	1.57			
Refused	306	1.65			

Finally, we asked respondents to identify specific business conditions that affect their employment status. Results show somewhat challenging labor market conditions in the seven-county region. Nearly 51 percent of the unemployed, or 9,365 unemployed individuals, gave a flat response to this question indicating they “couldn’t find any work.” More than 16 percent of the unemployed (3,036) may need comprehensive skill training, as they indicated there was “no work available in their line of work.” In varying degrees, other challenging business factors also appear in the list: for example, about 900 of the unemployed indicated they do not have the necessary skill, education, and training to be able to get a job.

III.G. Specific Case Studies: Characteristics of All Marginally Attached

All marginally attached workers include those who are discouraged or marginally attached to the workforce due to barriers to employment, such as family obligations, transportation problems, and child care. Table 25 shows the marital status and household size of the total marginally attached workforce. Basic characteristics of this group are that more than 70 percent are married and 65 percent have two-member households (including the respondent).

Table 25. Characteristics of All Marginally Attached in LWIA 6:
Marital Status and Household Size

Marital status:	Number	Percent
Married	7,549	70.70
Single	3,126	29.30
Household Size: How many additional people		
	Number	Percent
None	2,106	19.70
1	6,947	65.10
2	1,087	10.20
3	535	5.00

What are the primary reasons for “all marginally attached” for not looking for work? Is there a specific economic factor that pushed them away from the labor force? Table 26 briefly looks at these issues for this specific group.

Primary reasons cited by “all marginally attached” for not working are “health conditions” and “family responsibilities.” “Slack or business conditions” and “no jobs” are cited by more than 11 percent of “all marginally attached workers,” a total of 1,199 people. In terms of specific business conditions, more than 12 percent of all marginally attached workers specified they “couldn’t find any work.”

Table 26. Characteristics of "All Marginally Attached" in LWIA 6:
Reasons for Not Working

What is the main reason you are not currently working?		
	Number	Percent
Health conditions	5,555	52.04
Disability	581	5.44
Family responsibilities	3,157	29.57
Slack work or business conditions	504	4.72
No jobs	695	6.51
Transportation problems	183	1.71
What specific business and economic conditions affected your decision for not looking for a job?		
	Number	percent
Retired	276	2.59
Couldn't find any work	1,289	12.08
Don't have necessary skills/training	207	1.94
Unsatisfactory work arrangements	163	1.53
Age-related and other discriminations	121	1.13
Other	8,619	80.74

IV. CONCLUSION

The study findings suggest that the seven-county region in southern middle Tennessee has an abundant labor force that may easily adapt to business needs. To summarize the findings:

- 176,090 residents over 18, of which 111,333 are in the labor force, live in the seven-county region, for a labor force participation rate of 63.23 percent.
- 47,253 residents are readily available for work for new businesses or existing businesses expanding in the region. Of these workers,
 - about 18,055 are underemployed and willing to change jobs for a better one,
 - about 18,523 are unemployed and looking for job, and
 - 10,675 are discouraged or other marginally attached workers and willing to work.
- Nearly one-third of the region's labor force has an educational attainment of associate degree and above.
- In addition, one-fifth of the labor force has some college-level education.
- According to our estimates, nearly three-fifths of the underemployed have at least one skilled trade.
- Nearly 4,000 available workers, representing about 10 percent of the total available workforce in the region, have more than one skilled trade,.

From a workforce development perspective, the study findings also suggest the regional stakeholders should address the following issue:

- There is evidence of structural change in the region's economy over the years, and the spell of unemployment for some workers is getting longer, suggesting that these workers need comprehensive retooling of their skills and education to fit in the competitive labor market.

Finally, although they are not included in this study's available labor force estimates, some workers are willing to change jobs for a new one even if the new job pays equal to or less than their current wage rate. These workers may be counted as available labor force. However, since these workers are not currently looking for a job, we did not count them as available labor force. Therefore, our estimates of available labor force for the region fall closer to the lower bound.

V. REFERENCES

We consulted several published reports through online research at various stages of this report. The following are some examples of the resources we found particularly useful.

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Current Population Survey. www.bls.gov.

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Oklahoma Department of Commerce. August 2009. *Far Eastern OK Labor Force Study*, available at www.okcommerce.gov.

The Pathfinders. Various underemployment studies conducted by this consulting firm.

U.S. Department of Labor. June 2008. *The Unemployment Rate and Beyond: Alternative Measures of Labor Utilization*. Issues in Labor Statistics, Summary 08-06, at www.bls.gov.

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Wilkins, R. 2004. *The Extent and Consequences of Underemployment in Australia*. Melbourne Institute Working Paper No. 16/04, Victoria, Australia.

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Appendix I. Survey

Labor Force Availability Survey in Southern Middle Tennessee

Good afternoon/morning. I am _____. I am calling on behalf of Middle Tennessee State University to conduct this survey on workforce conditions in Bedford, Coffee, Franklin, Grundy, Lincoln, Moore, and Warren counties. This survey and the study are sponsored by the Tennessee Department of Labor and Workforce Development as well as local industrial development boards. Your participation is extremely important but completely voluntary. Middle Tennessee State University will use the information for statistical purposes only, and no personally identifiable information will be released to the state, local workforce development agencies, and the public. This interview usually takes about 25 minutes.

I. General/Demographic Questions (Ask All Respondents)

1. What is your age?
 - a. 18-34
 - b. 35-44
 - c. 45-54
 - d. 55-64
 - f. 65 and Over
2. Which county do you live in?
 - a. Bedford
 - b. Coffee
 - c. Franklin
 - d. Grundy
 - e. Lincoln
 - f. Moore
 - g. Warren
3. What is your gender? (ask if necessary)
 - a. Male
 - b. Female
4. Are you currently married?
 - a. Yes
 - b. No
5. How many other people over 18 are living in this house?
 - a. 0
 - b. 1
 - c. 2
 - d. 3
 - e. 4 and more
6. Regardless of your employment situation, which of the following skills do you have? (Mark all that apply.)
 - a. Occupational license
 - b. Professional certificate (i.e., computer, secretarial, financial analyst)

- c. Skilled trade (i.e., electrician, carpenter) (Go to Q7.)
 - d. Local job readiness training (i.e., community college, technology center, state agency)
 - e. None
7. Which of the following skilled trades best describe your skill set?
- a. Carpenter
 - b. Plumbers, pipefitters, and steamfitters
 - c. Automotive service technicians and mechanics
 - d. Industrial machinery mechanics
 - e. Inspectors and testers
 - f. Machinists
 - g. Welders
 - h. Electricians/Engineering technicians
 - i. Other
8. What is the highest level of school you completed?
- a. Less than high school
 - b. High school (and GED)
 - c. Some college but no degree
 - d. Associate degree
 - e. Four-year college, Bachelor's degree
 - f. Postgraduate/ Masters
9. How would you describe your current employment situation? (Mark only one.)
- a. Employed working for someone/a company (Go to Q10.)
 - b. Self-employed (End of Survey for this group)
 - c. Recently laid off or furloughed and looking for a new job (Go to Q24.)
 - d. Recently furloughed and expecting recall (Go to Q24.)
 - e. Unemployed and looking for a job (Go to Q24.)
 - f. Not working and not in labor force (Go to Q29.)

II. Characteristics of Employed

10. How many jobs do you currently have?
- a. 1
 - b. 2 or more
11. On average, (all jobs combined) how many hours a week do you currently work?
- a. Less than 35 hours (Part time) (Go to Q12.)
 - b. More than 35 hours (Full time) (Go to Q13.)
12. What is the main reason you work less than 35 hours?
- a. Slack work/business conditions
 - b. Seasonal work
 - c. Health reasons
 - d. Child care
 - e. School/training
 - f. Other family obligations
 - g. Social security limit on earnings
 - h. Don't want/don't have to
 - i. Other reasons

II.1 Job Characteristics (ask all employed)

13. How long have you been working in your current (primary) job? (Primary job is the one you spend most of your weekly work hours)
- Less than 1 year
 - 1 to 3 years
 - 3 to 5 years
 - 5 to 10 years
 - 10 to 20 years
 - More than 20 years
14. What does your company do? (Please record the industry: shoe manufacturing, fast food, landscaping, etc.)
15. What is your occupation (at your primary job)? (Please record appropriately: welder, plumber, etc.)
16. On average, what is your hourly wage (including all benefits and tips but before tax deductions)?
- \$6.99 or Less
 - \$7.00-\$7.99
 - \$8.00-\$8.99
 - \$9.00-\$9.99
 - \$10.00-\$10.99
 - \$11.00-\$11.99
 - \$12.00-\$12.99
 - \$13.00-\$13.99
 - \$14.00-\$14.99
 - \$15.00-\$15.99
 - \$16.00-\$16.99
 - \$17.00-\$17.99
 - \$18.00-\$18.99
 - \$19.00-\$19.99
 - \$20 or Over
17. How many miles do you travel each day for your current (primary) work?
- 0-5 miles
 - 6-10 miles
 - 11-20 miles
 - 21-30 miles
 - 31-50 miles
 - More than 50 miles
 - Work at home
18. In which of the following counties is your primary workplace located?
- Bedford
 - Coffee
 - Franklin
 - Grundy
 - Lincoln
 - Moore
 - Warren

II.2 Job-Skill Fitness (ask all employed)

19. Does your current (primary job) fit well with your education and training, skills, and experiences?
- a. Yes
 - b. No (If “no,” ask Q20.)
20. (If Q19 is “no”) is it because of your... (Mark all that apply.)
- a. Education
 - b. Training
 - c. Skill
 - d. Experience
21. What is the lowest wage rate you are willing to accept to change your current job?
- a. Not interested in changing my job
 - b. \$6.00-\$6.99
 - c. \$7.00-\$7.99
 - d. \$8.00-\$8.99
 - e. \$9.00-\$9.99
 - f. \$10.00-\$10.99
 - g. \$11.00-\$11.99
 - h. \$12.00-\$12.99
 - i. \$13.00-\$13.99
 - j. \$14.00-\$14.99
 - k. \$15.00-\$15.99
 - l. \$16.00-\$16.99
 - m. \$17.00-\$17.99
 - n. \$18.00-\$18.99
 - o. \$19.00-\$19.99
 - p. \$20 or Over
22. How much farther you are willing to commute for a better paying new job?
- a. 0-5 miles
 - b. 6-10 miles
 - c. 11-20 miles
 - d. 21-30 miles
 - e. 31-50 miles
 - f. More than 50 miles
23. Have you looked for a better job in the past 3 months? [end of survey for employed]
- a. Yes
 - b. No

III. Unemployed, Recently Laid off or Furloughed

24. When did you last work at a job or business?
- a. Within the last 6 months
 - b. 6 to 12 months
 - c. More than 12 months ago
25. Was your last job a full-time job?
- a. Yes
 - b. No



26. Have you exhausted your unemployment benefits?
- a. Yes
 - b. No
27. What is the lowest wage rate at you are currently willing to work?
- a. \$6.00-\$6.99
 - b. \$7.00-\$7.99
 - c. \$8.00-\$8.99
 - d. \$9.00-\$9.99
 - e. \$10.00-\$10.99
 - f. \$11.00-\$11.99
 - g. \$12.00-\$12.99
 - h. \$13.00-\$13.99
 - i. \$14.00-\$14.99
 - j. \$15.00-\$15.99
 - k. \$16.00-\$16.99
 - l. \$17.00-\$17.99
 - m. \$18.00-\$18.99
 - n. \$19.00-\$19.99
 - o. \$20 or Over
28. How much farther you are willing to travel for this job?
- a. 0-5 miles
 - b. 6-10 miles
 - c. 11-20 miles
 - d. 21-30 miles
 - e. 31-50 miles
 - f. More than 50 miles

IV. Not Working or Not in Labor Force

29. What is the main reason you are not currently working/in labor force?
- a. Retired
 - b. Health conditions
 - c. In school
 - d. Family responsibilities
 - e. Slack work or business conditions (Go to Q30.)
 - f. Transportation problems
 - g. Other
30. What business and economic reasons affected your decision for not looking for work?
- a. No work available in my line of work
 - b. Couldn't find any work
 - c. Don't have necessary schooling, training, skills or experience
 - d. Wages are too low
 - e. Better jobs are far from where I live
 - f. Unsatisfactory work arrangements
 - g. Age-related and other discriminations
 - h. Other
31. Are you willing to work if you find a job? (for all respondents in this group)
- a. Yes (If "yes," go to Q32.)
 - b. No

32. What would be the lowest wage rate for you to consider working again?

- a. \$6.99 or Less
- b. \$7.00-\$7.99
- c. \$8.00-\$8.99
- d. \$9.00-\$9.99
- e. \$10.00-\$10.99
- f. \$11.00-\$11.99
- g. \$12.00-\$12.99
- h. \$13.00-\$13.99
- i. \$14.00-\$14.99
- j. \$15.00-\$15.99
- k. \$16.00-\$16.99
- l. \$17.00-\$17.99
- m. \$18.00-\$18.99
- n. \$19.00-\$19.99
- o. \$20 or Over

33. How much farther you are willing to travel for this job?

- a. 0-5 miles
- b. 6-10 miles
- c. 11-20 miles
- d. 21-30 miles
- e. 31-50 miles
- f. More than 50 miles

[end of the survey]

APPENDIX II. SURVEY SAMPLING REPORT

LABOR FORCE AVAILABILITY IN SOUTHERN MIDDLE TENNESSEE

Survey is conducted by

Wayne J. Pitts, Ph.D. and

Mary F. Campbell, Ph.D.

University of Memphis

Mid-South Survey Research Center

I. INTRODUCTION AND METHODOLOGICAL HIGHLIGHTS

- The Mid-South Survey Research Center (MSRC) at the University of Memphis conducted the Labor Force Availability Survey between July 14 and 29, 2009.
- Survey included respondents from the following counties:
 - Bedford
 - Coffee
 - Franklin
 - Grundy
 - Lincoln
 - Moore, and
 - Warren.
- Survey included cell phone (7.6%) and residential telephone (92.4%) users.
- Efforts were directed to ensure representative gender and age distributions—nearly half were under age 44, and males and females were almost evenly split.
- A total of 65% of respondents reported that they were employed/self-employed at the time of the survey.
- A total of 49 respondents began but did not complete the survey.
- The refusal rate is especially low at only 2.6%; 134 respondents refused to take the survey.
- Sampled telephone numbers were selected anonymously and confidentially.
- Interviewers completed their work in a supervised workplace using computer assisted telephone interviewing (CATI) stations set up as individual/private workstations. The CATI program randomly assigns telephone numbers to interviewers.

II. SURVEYS COMPLETED PER COUNTY

The following table presents survey goals and completed surveys per county in LWIA 6.

County	Survey Goals per County			Completed Surveys per County		
	Cell	Land	Total	Cell	Land	Total
Bedford	32	209	241	12	233	245
Coffee	37	239	276	11	273	284
Franklin	29	186	215	21	200	221
Grundy	8	54	62	6	62	68
Lincoln	25	132	187	21	167	188
Moore	5	30	35	2	32	34
Warren	25	161	186	20	166	186
TOTAL	161	1,011	1,202	93	1,133	1,226

III. DISPOSITION CODES FOR THE SURVEY

Categories	Total	
	n	%
Complete	1,226	5.81
No Answer	5,071	24.02
Answering Machine	5,130	24.3
Business organization	168	0.8
Fax/pager	294	1.39
Phone not in service	3,056	14.48
Busy signal	447	2.12
Mid-terminate	49	0.23
Call back	2,651	12.56
Refusal	134	0.63
Language problem	101	0.48
Parents not at home	31	0.15
Not qualified—Age	2,718	12.88
Not qualified—Out of County	32	0.15
Total	21,191	100