

GSG

Labor Supply Certification

The MAEDC Region
Missouri Labor Shed

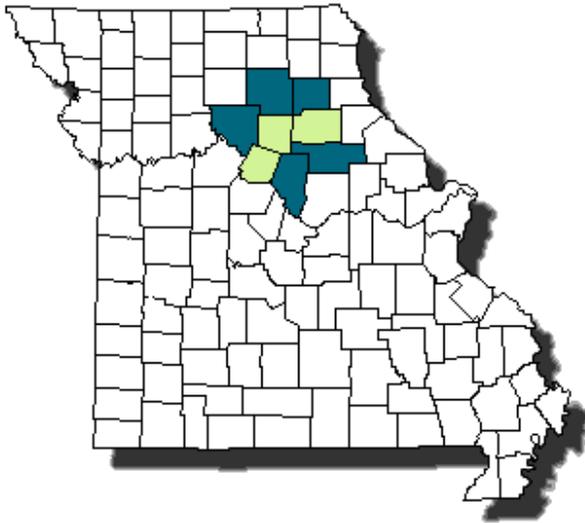
Underemployment

Available Skills

Desired Wages

The MAEDC Region Labor Supply Certification

Partners in Economic Development



Moberly Counties:

Audrain,
Boone,
Chariton,
Howard,
Macon,
Monroe,
Randolph,
and Shelby



For Opportunity and Growth

July 2015



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Executive Summary

Introduction

The MAEDC Region commissioned a Labor Supply Study to measure the amount and quality of potential employees in an eight county area labor market (ALM). The eight counties are: Audrain, Boone, Chariton, Howard, Macon, Monroe, Randolph, and Shelby. The purpose of this report is to assess the available workforce for the MAEDC which in aggregate includes all eight counties as the Area Labor Market. The **total available workforce** represents those who indicate that they are looking for employment or would consider changing their employment for the right job opportunity. However, on occasion, it is advantageous to compare the **total available workforce** with data from all respondents. At that time the terminology used will be Census Population Estimate, Census 18–64 Population Estimate, Census Male Population Estimate, and Census Female Population Estimate.

General Findings, Opportunities, and Challenges

The Labor Supply Certification Study shows that MAEDC provides a stable and productive workforce. The availability, education, and skills add value and competitiveness to the area labor market. The components of this study quantify the strengths and challenges of this laborforce. The methodology of the research process is presented in Appendix B.

A subset of the **total available workforce** of interest to many employers in a large scale hiring mode are those who are identified as **underemployed**. These individuals are currently working and would take a better job if offered. They possess the skills, education, and experience to qualify them to do so. Of the 113,435 persons in the **total available workforce**, 32,625 are considered **underemployed** (see more on page 11).

**Total Available
Workforce**
113,435

Underemployed
32,625

With the right employment opportunities, the MAEDC ALM appears positioned to retain and attract the talent necessary for growth of new and existing businesses representing regional, national, and international markets. The MAEDC has several advantages. The location provides advantages with rural amenities with easy access to both two and four-year education institutions throughout the 8-county ALM. MAEDC has a large and diverse workforce talent pool within easy commute to most local and county labor market centers, and reflects the cost advantages of a rural setting.

Workforce Availability Findings

The workforce availability findings reflect the views and perspectives of people between the ages of 18 and 64 who would consider seeking or changing employment. This group represents the supply side of the workforce market. The overall findings are as follows:

- About 35 percent (113,435 persons) of the Census Population Estimate in the Overall MAEDC ALM is considered to be in the **total available workforce**.
- It is estimated 27,054 **non-worker** and 86,381 persons in the **worker available** segments of the **total available workforce** are **seeking different employment** or are **willing to change jobs** if the right opportunity arises.
- The **non-worker available** segment of the **total available workforce** is composed of 6,087 homemakers, 6,087 retirees, and 14,880 unemployed.

- The primary occupational clusters of the **worker available workforce** of the MAEDC ALM include 7.1 percent in management, 7.1 percent in production/repair/installation, 23.7 percent in professional/technical, and 62.0 percent in service occupations with 27,054 available in the **non-worker available** in the unemployed, retired, and homemaker.
- Approximately 29 percent of the **total available workforce** (113,435 individuals) are **underemployed** (32,625).
- Twenty-nine percent of the **total available workforce** would be interested in employment with a wage up to \$12.99 per hour. The average desired wage rate per hour for the occupational clusters shows that the professional/technical group is seeking \$21.88; production/repair/installation, \$21.44; service sector, \$17.78; and the **non-worker available** group, \$14.84.
- The education level of the **total available workforce** includes 70.0 percent with at least some college education and 96.1 percent with at least a high school diploma.
- The **total available workforce** is willing to commute an average of 24 minutes/miles. Currently, the working population commutes an average of about 26 minutes/miles. Of the **total available workforce**, 85.1 percent (95,313 people) would travel more than 10 minutes/miles one way for work while 26 percent (34,128) would commute more than 30 minutes/miles and 12.7 percent (16,964) would travel more than 50 minutes/miles.
- The overall average age of the **total available workforce** is 43.8. The average age of the **worker available workforce** by occupational cluster is 44.7 for management, 50.1 for production/repair/installation, 42.4 for professional/technical, and 41.4 for service sector.
- The top motivators for changing jobs among those open for the right opportunities are 74.0 percent salary, 70.4 percent Health Benefits, and 33.1 percent retirement.
- A majority, 87 percent, of the **worker available workforce** stated they are willing to work outside of their primary field of employment (i.e., those in manufacturing would be willing to work in the service sector, etc.).
- The average years on the job for the Overall ALM is 7.9 years which reflects both a stable and mature workforce.
- Approximately 5 percent (4,444 people) of the **worker available workforce** live inside the MAEDC but work outside of the 8-county ALM.
- The **underemployed** provide the best opportunity for potential applicants. They represent a subset of the **total available workforce** that is normally more experienced, better educated, and more motivated than the **total available workforce** in general

Overview

Introduction

The primary purpose of the MAEDC Labor Supply Study is to determine the number of workers available for employers considering expansions and major investments. The **total available workforce** represents respondents who indicate they are either looking for employment or would consider changing jobs for the right employment opportunities. The key advantage of a Labor Supply analysis is that it expands the pool of potential workers by including workers excluded from the civilian labor force (CLF). It also allows researchers to examine those members of the Area Labor Market (ALM) pool who have a propensity to consider a job opportunity given their employment expectations.

The focus of this study is the MAEDC ALM. The ALM, which is also known as a labor shed, for the purpose of this study is defined as the area or region from which the labor shed draws its commuting workers. Therefore, the MAEDC ALM consists of eight counties which further are part of a larger region with a common database and research methodology. This report also includes workers who are commuting out of the designated eight county ALM to work but would be willing to work closer to home with the right employment opportunities. However, on occasion it is advantageous to compare the **total available workforce** with data from all respondents. At that time the terminology used will be **Census 18–64 Population Estimate** and **Total Available Workforce**. The following table provides an overview of the **total available workforce** including the subset groups from the **worker available** and the **non-worker available** population within the ALM.

The findings from this survey are based on a type of stratified random telephone and social media campaign of 718 adults living in the 27 counties of the NMDP ALM. The NMDP along with MAEDC contracted with Growth Services Group (GSG) to design and administer the Labor Supply Study. Answernet of Columbus, OH, conducted part of the survey interviews by phone and Notionfront of Moberly, MO provided the social media respondents. In 718 of these households an adult who is working or non-working between the ages of 18 and 64 agreed to participate in the survey. When all 718 respondents are included in the analysis, the survey aggregate results have a margin of error of +/- 5 percent. Subsets of the study group may have a higher error rate. The respondents from the random population of age 18-29 in subsets of the study may have a confidence level of 90% or less. A more detailed description of the survey process and methodology is presented in Appendix B.

Total Available Workforce (Overview)

Category 18-64	Overall	Percent
Total Available Workforce*	113,435	100.0%
Worker Available (Willing To Change)	86,381	76.2%
Underemployed	32,625	28.8%
Seeking Different Employment	20,291	17.9%
Willing To Change	32,465	28.6%
Non-worker Available (Willing To Work)	27,054	23.8%
Unemployed	14,880	13.1%
Homemaker	6,087	5.4%
Retired	6,087	5.4%

*While all those in the worker available workforce are willing to change with the right opportunity, 20,291 are seeking different employment and 32,625 are identified as underemployed and willing to change. The Willing to Change 32,465 are willing to change only for the right opportunity.

In the Non-worker 27,054, all are willing to work with the right opportunity. The unemployed (not currently working) includes both unemployed as defined by BLS as those who are seeking employment as well as those that have given up looking but are willing to accept the right opportunity and not covered in the BLS definition.

Available Workforce

Total Available Workforce

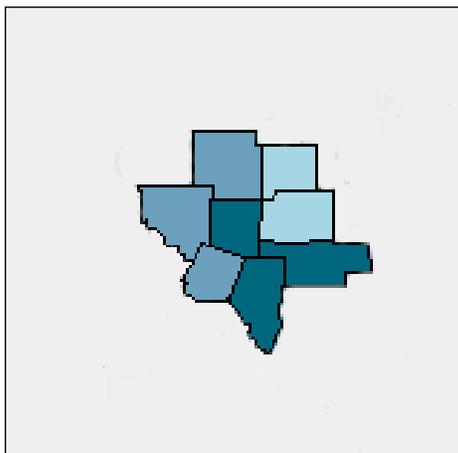
The following table describes the **total available workforce** in the MAEDC 8-county ALM. The **total available workforce** for MAEDC represents 113,435 people which consists of 86,381 working and 27,054 non-working. This demonstrates the workforce of the region is more than sufficient in scope and diversity to support most employers considering expansion or location in the MAEDC ALM.

The map shows how each county in the ALM compares to all the other counties in terms of percent of the **total available workforce** for jobs in the MAEDC 8-county ALM. Each county is grouped into one of three categories specified in the legend, each of which are made up of multiple counties.

The summary table for the MAEDC ALM shows a **total available workforce** of 113,435, 41.2 percent of the total estimated Census population and 75.3 percent of the estimated Census 18–64 population. The table further presents the subsets of the **Total Available Workforce** and **Underemployed** by gender and age groupings. Men make up 48.5 percent and females 51.5 percent of the total **available workforce**. Those in the age 30–54 group consider themselves significantly more underutilized or underemployed at 45.8 percent than those in the age 55–64 at 6.5 percent.

ble workforce. Those in the age 30–54 group consider themselves significantly more underutilized or underemployed at 45.8 percent than those in the age 55–64 at 6.5 percent.

Sources of Available Workforce by County



Category	Color
Less than 2.1%	Lightest Blue
2.1% to 7%	Medium Blue
Greater than 7%	Darkest Blue

Available Workforce Work Status

Category	Population	Percent
Total Available Workforce	113,435	100.00%
Worker Available	86,381	76.2%
Working Student	9,255	8.2%
Working (withholdings)	66,020	58.2%
Self-employed (no withholdings)	11,106	9.8%
Military	0	0.0%
Non-Worker Available	27,054	23.8%
Unemployed	14,271	12.6%
Homemaker	6,087	5.4%
Retired	6,087	5.4%
Non-working Student	609	0.5%

Summary Workforce Results

Characteristics	Overall	Percent
Population and Civilian Labor Force		
Census Population Estimate	323,614	100.0%
Census 18–64 Population Estimate	177,011	100.0%
Census 18–64 Male Population Estimate	88,328	49.9%
Census 18–64 Female Population Estimate	88,683	50.1%
Available Workforce		
Total Available Workforce	113,435	100.0%
Male	55,016	48.5%
Female	58,419	51.5%
Age 18–29	46,735	41.2%
Age 30–54	51,386	45.3%
Age 55–64	15,314	13.5%
Underemployed		
Underemployed	32,625	100.0%
Male	14,812	45.4%
Female	17,813	54.6%
Age 18–29	15,562	47.7%
Age 30–54	14,942	45.8%
Age 55–64	2,121	6.5%

Sources: Census and Bureau of Labor Statistics (BLS) Population and Labor Force Estimates

* Underemployment is a subset and is included in the available workforce statistics

Average Age and Years on the Job

The average age and years on the job for the various occupational clusters indicate a mature, experienced, and diverse available workforce. The higher median age indicates that the older labor force is less available in the **total available workforce** than younger workers. The **Non-worker Available** has a higher average and median age (46.1 and 50.0)

due to a high proportion of **homemaker** and **retired** non-workers not actively seeking but available for the right opportunity. The average age for the **total available workforce** is 43.8 while the median age is 45.0.

The three oldest occupation groups are: Production: Factory Assembly, Fabrication, etc.; Professional: Doctors, Lawyers, Engineers, etc.; and Maintenance, Installations, and Repairs, etc. The three youngest occupation groups are: Computer Technology, Science, Math, and Engineering (STEM); Consumer Services Retail, Restaurant, etc.; and Protective: Police/Fire/Military, etc..

The top three occupation groups by most years on the job are: Production: Factory Assembly, Fabrication, Construction and Mining; Other White Collar Workers; and Professional: Doctors, Lawyers, Engineers, etc. The top three occupation groups by least years on the job are: Business Office and Clerical Operations; Computer Technology, Science, Math and Engineering (STEM); and Consumer Services Retail, Restaurant, Hotel, Food Services, etc.

Average Age by Occupational Clusters

Category	Avg. Age	Med. Age
Management	44.7	49.0
Production/Repair/Installation	50.1	52.5
Professional/Technical	42.4	44.0
Services	41.4	43.0
Non-Worker Available	46.1	50.0

Available Workforce Average Age and Years on Job

	Average Age	Years on Job
Administrative Support: Shipping/Receiving, Secretaries, Computer Operators, etc.	43.8	8.0
Business Office and Clerical Operations	43.3	4.0
Business Sales: Finance, Insurance, Real Estate, Wholesale, Industrial etc.	47.3	8.5
Professional: Doctors, Lawyers, Engineers, Accountants, Professors, Consultants, etc.	48.3	10.8
Computer Technology, Science, Math and Engineering (STEM)	33.0	4.8
Consumer Services Retail, Restaurant, Hotel, Food Services, etc.	36.7	7.2
Delivery/Drivers/Courier	41.3	7.5
Government Office and Clerical Operations	40.0	10.5
Health, Social, Community, Personal Care, and Recreation Services	45.6	10.0
Maintenance, Installations, and Repairs (Mechanic, Carpenter, Plumber, Electrician) etc.	47.4	10.7
Managerial, Executive, Business Owners, Farmers, Supervisory	44.7	10.5
Other Blue Collar: Laborers, Farm Hand, Janitor, Warehouse Workers, etc.	40.4	7.6
Other White Collar Workers	41.8	11.0
Production: Factory Assembly, Fabrication, Construction and Mining	52.7	12.5
Protective: Police/Fire/ Military/Regulators/investigators and Postal	37.9	7.8
Teachers, Instructors, Trainers, Writers, Researchers, etc.	43.6	8.8

Current and Previous/Other Work Experience

The following table shows the current work experience, second jobs, currently underutilized, and previously underutilized of the total **worker available workforce**. The table provides a perspective on the types of workers available for employment in the MAEDC ALM. The first column in the table shows the number of workers available employed in the various occupational clusters.

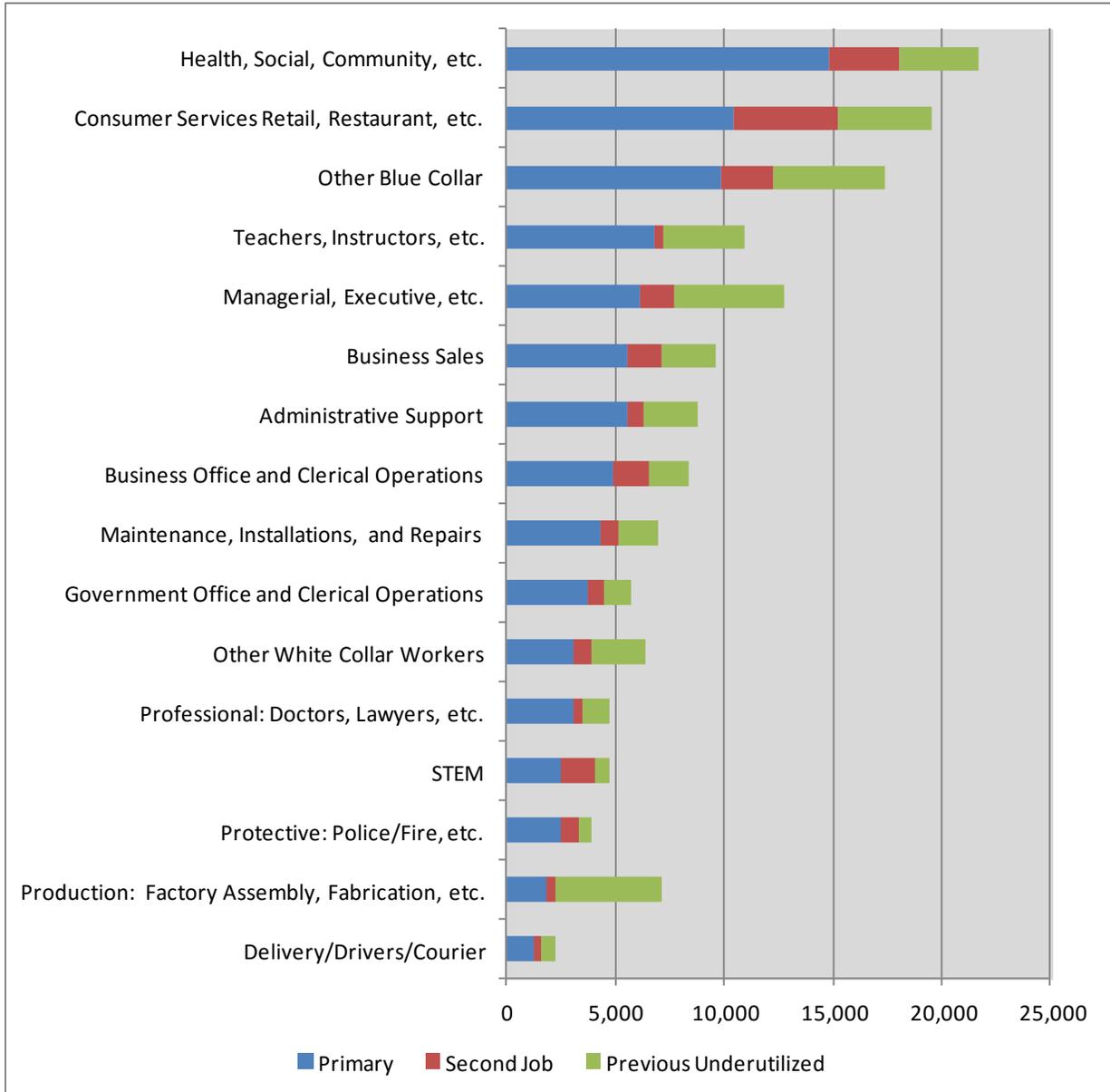
Respondents are indicating a high level of employment availability from the service sector in areas of health, social, and community care and in the retail, hospitality, and food service occupations. However, the survey shows a workforce with skills, education, and experience available across the entire occupational classifications if the right employment opportunities are present.

Of those **workers available** and currently employed, 26.6 percent also have second jobs. Forty-six percent of Consumer Services, Retail, Restaurant, etc. have a second job, along with 21.4 percent of Health, Social, and Community Care workers. A relatively high 63.3 percent of STEM occupations have second jobs with an additional 24.4 percent identifying themselves as underutilized or underemployed. Forty-four percent of Consumer Services, Retail, Restaurant, etc. are underutilized with eight other occupation groups also identifying themselves as highly underutilized or **underemployed**. The second job, current underutilized, and previous underutilized are all subsets of the worker available.

Worker Available Work Experience

	Primary	Second	Current Underutilized	Previous Underutilized
Administrative Support: Shipping/Receiving, Secretaries, Computer Operators, etc.	5,528	793	3,098	2,469
Business Office and Clerical Operations	4,924	1,586	1,836	1,851
Business Sales: Finance, Insurance, Real Estate, Wholesale, Industrial etc.	5,528	1,586	3,098	2,469
Computer Technology, Science, Math and Engineering (STEM)	2,505	1,586	612	618
Consumer Services Retail, Restaurant, Hotel, Food Services, etc.	10,452	4,760	4,630	4,319
Delivery/Drivers/Courier	1,210	397	306	618
Government Office and Clerical Operations	3,715	793	1,836	1,233
Health, Social, Community, Personal Care, and Recreation Services	14,857	3,174	4,323	3,702
Maintenance, Installations, and Repairs (Mechanic, Carpenter, Plumber, Electrician) etc.	4,319	793	1,224	1,851
Managerial, Executive, Business Owners, Farmers, Supervisory	6,133	1,586	3,710	5,071
Other Blue Collar: Laborers, Farm Hand, Janitor, Warehouse Workers, etc.	9,847	2,459	6,772	5,071
Other White Collar Workers	3,110	793	1,224	2,469
Production: Factory Assembly, Fabrication, Construction and Mining	1,814	397	1,224	4,936
Professional: Doctors, Lawyers, Engineers, Accountants, Professors, Consultants, etc.	3,110	397	612	1,233
Protective: Police/Fire/ Military/Regulators/investigators and Postal	2,505	793	1,224	618
Teachers, Instructors, Trainers, Writers, Researchers, etc.	6,824	397	2,487	3,702
Worker Available	86,381	22,290	32,625	42,229
Non-worker Available	27,054	N/A	N/A	8,147

Worker Available Work Experience



The chart shows the same information as presented in the table on the previous page but in a graphical format and without the currently underutilized. The visual shows a good mix of current and related work experience and those who indicated availability and as currently employed. The Other Blue Collar and Production type of occupations show opportunities for the Goods Producing industries, such as manufacturing and construction, with over 15,000 identifying themselves as available.

Student Debt

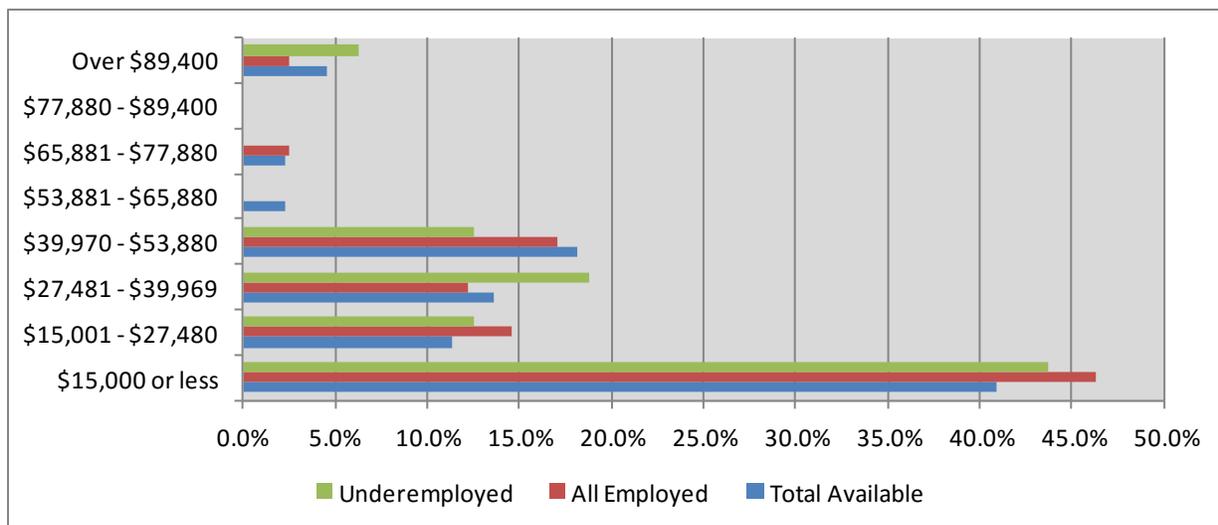
Student debt is a growing concern, and along with a necessary educated workforce is a challenge for our local and national economy. According to the Wall Street Journal 40 million people, roughly 70 percent of recent graduates, have an average debt load of \$33,000. It is for this reason that student debt is addressed in this study.

The data indicates that 40.0 percent of the 18–29 year olds have student debt. This compares to 25.2 percent for the 30–54 year olds and 10.3 percent for the 55–64 year olds. The debt amounts for the younger available workforce are skewed towards the lower end of the debt balance spectrum where the distribution of the debt appears to widen for the older age groups.

Student Debt by Age Group

	18 - 29	30 - 54	55 - 64
Have Debt	40.0%	25.2%	10.3%
\$15,000 or less	66.7%	32.1%	25.0%
\$15,001 - \$27,480	16.7%	7.1%	25.0%
\$27,481 - \$39,969	0.0%	21.4%	0.0%
\$39,970 - \$53,880	16.7%	21.4%	0.0%
\$53,881 - \$65,880	0.0%	0.0%	25.0%
\$65,881 - \$77,880	0.0%	3.6%	0.0%
\$77,880 - \$89,400	0.0%	0.0%	0.0%
Over \$89,400	0.0%	3.6%	25.0%
No Response	0.0%	10.7%	0.0%

Student Debt Current and Total Available Workforce



The chart represents the percentage of the various groups of underemployed, total available workforce, and all employed have in debt compared to each other. The all employment group appears well represented in all debt categories with over 40 percent having debt of \$15,000 or less.

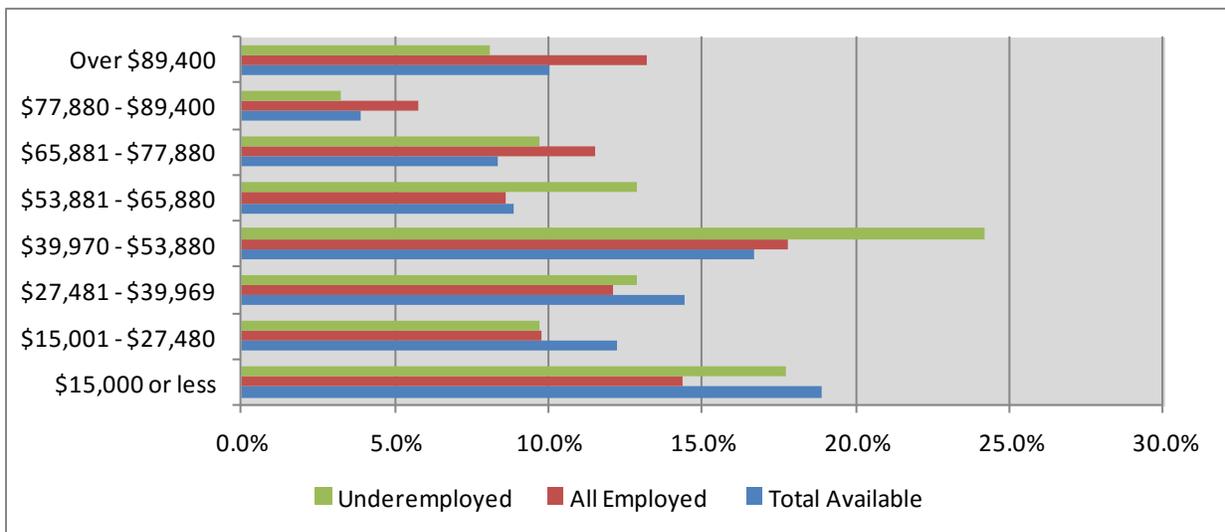
Household Income

The household income clearly shows the younger 18–29 age group with 30.8 percent having household income of \$15,000 or less compared to 30–54 age group’s 16.2 percent and the 55–64 age group’s 12.8 percent. For the 18–29 age group 3.3 percent have a household income over \$65,880 compared to 23.4 percent of the 30–54 age group and 33.3 percent for the 55–64 age group.

Household Income by Age Group

	18 - 29	30 - 54	55 - 64
\$15,000 or less	36.7%	16.2%	12.8%
\$15,001 - \$27,480	20.0%	12.6%	5.1%
\$27,481 - \$39,969	16.7%	10.8%	23.1%
\$39,970 - \$53,880	6.7%	21.6%	10.3%
\$53,881 - \$65,880	6.7%	10.8%	5.1%
\$65,881 - \$77,880	3.3%	8.1%	12.8%
\$77,880 - \$89,400	0.0%	4.5%	5.1%
Over \$89,400	0.0%	10.8%	15.4%
No Response	10.0%	4.5%	10.3%

Household Income Current and Total Available Workforce



The chart represents the percentage of the various groups of underemployed, total available workforce, and all employed have in household income compared to each other. The underemployed appear to be clearly motive about income with a larger percent responding in the lower income and a lower percent represented in the higher income.

Worker Available Workforce

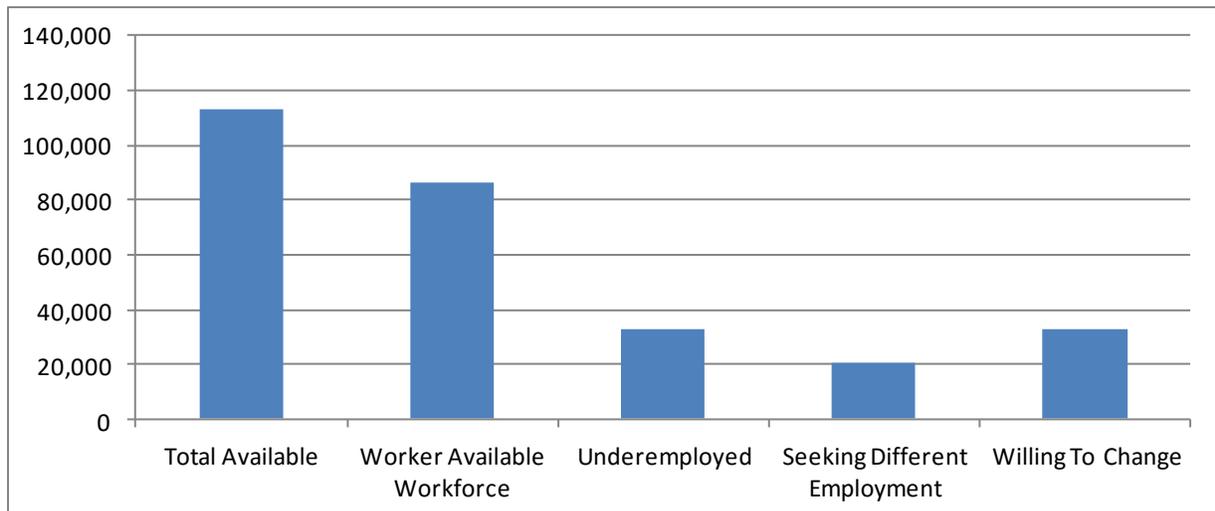
The willingness of the currently employed to change employment with the right opportunity is a key indicator in profiling the characteristics of the **total available workforce** in the Area Labor Market. The employed individuals who are willing or likely to change jobs with an existing or a different employer represent the primary pool of the **total available workforce**. The results of this workforce survey show that 76.2 percent of the respondents identified themselves as part of the **total available workforce** were **worker available** at the time they were contacted with the other 23.8 percent as **non-worker available**.

Worker Available Breakout

Category 18-64	Overall	Percent
Total Available	113,435	100.0%
<u>Worker Available Workforce</u>	86,381	76.2%
Underemployed	32,625	28.8%
Seeking Different Employment	20,291	17.9%
Willing To Change	32,465	28.6%

It is important to analyze each segment of respondents to identify and respect the differences and contributions to the ALM. Many factors must be considered when evaluating these workers, such as education, unused skills, wages and benefits desired, past experience, and the distance individuals are willing to travel to work. Within the **worker available workforce** are three subsets: those who classify themselves as **underemployed**, those actively **seeking different employment**, and those **willing to change** with the right opportunity. Respondents of these three subsets are counted only once as part of the **worker available workforce**.

Worker Available Population



Underemployed

The subset of underemployment is identified as those who believe they are currently underutilized in their jobs. This group is a primary source of good employees as these individuals are now working but desire a better job and also possess the skills, education, and experience to qualify for better jobs. They claim to have additional education and/or job training; a previous job that required more skill and/or education; or a current job that does not require the level of training and/or education attained. The key to this definition is education, training, or experience. Current pay or part-time status alone is not a qualifying factor for underemployment status in this study. In addition to the survey definition and self-selection of underemployed by the respondent, GSG has further selected only those who have had some post-high school education.

The 32,625 in this group are included in 86,381 members of the worker available workforce. By looking at the two tables one can see some similarities and differences with seeking and willing to change subset and the underemployed.

Age and Gender

The mean or average age of this group is 41 years of age. The respondents are distributed among all age ranges: 18 to 29 (45.5%), 30 to 54 (47.8%), and 55 to 64 (6.7%). Males and females represent 45.7 percent and 54.3 percent respectfully.

Education and Training

Sixty-eight percent of the **underemployed** respondents in the ALM have some college or associate degree and the other 32 percent have bachelor's or advanced degrees. This compares to 70.0 percent of the **total available workforce** with post-high school education.

Twenty-five percent (25.0%) of the **underemployed** respondents stated that experience, training, and educational opportunities would be important in accepting a new job.

Work Experience and Environment

To gain perspective on the types of workers available for new or different employment, survey respondents were asked to classify their previous occupations and industry experience as Goods Producing (manufacturing, construction mining or agriculture), Service Providing (retail, healthcare, etc.), or Government/Education. While the occupations may be similar in different industries, the focus of the work and work culture may be quite different in different types of industry. Twenty-four percent of the **underemployed** are in the Goods Producing sector.

Underemployed Workforce Characteristics

Underemployed	32,625
Years on Job	5.7
Willing to Commute One Way	29.2
Current Average Wage	\$16.58
Desired Average Wage	\$21.16
Household Income	\$44,397
Average Age	40.8
Male/Female Ratio	45.7/54.3
Working a Second or Part Time Job	25.8%
Only Job Part Time or Temporary	14.5%
Employer Doesn't Provide Health Insurance	32.8%
Has No Health Insurance	21.0%
Has No Retirement Benefits	47.5%

Underemployed Education Attainment

Less than high school	0.0%
High school or equivalent	0.0%
Some college or associate's degree	68.2%
Bachelor's degree	18.2%
Advanced degree	13.6%
Underemployed	32,625

Underemployed Primary Industry Sector/Past Employment

Goods Producing	24.2%
Service Providing	58.1%
Government/Education	17.7%
Underemployed	32,625

Seeking Different Employment

The subset of **seeking different employment** is identified as those who are actively looking to change jobs but are still currently employed. The 20,291 in this group are already included in 86,381 and are not counted twice. By comparing the two different tables **willing to change** and **seeking different employment**, one can see some significant differences. The **seeking different employment** have less years on the job, lower current wages, lower household income, a lesser degree of second or part-time jobs, a higher percentage with no health insurance and lower levels of education.

Age and Gender

The mean or average age of this group is 42 years of age. The respondents are distributed among all age ranges: 18 to 29 (49.6%), 30 to 54 (36.9%), and 55 to 64 (13.5%). Males represent a lesser proportion (39.6/60.4) than females of those **seeking different employment**.

Education and Training

More than half (69.9%) of the subset have post high school education and 26.6 percent have four-year degrees or higher. The **seeking different employment** subset has a slightly lower education attainment level of 69.9 percent with some post-high school education compared to 70.0 percent of the **total available workforce** of 113,435.

Twenty-seven percent (27.6%) of the **seeking different employment** respondents stated that experience, training, and educational opportunities would be an important consideration in accepting a new job.

Work Experience and Environment

To gain perspective on the types of workers available for new or different employment, survey respondents were asked to classify their previous occupations and industry experience as Goods Producing (manufacturing, construction mining or agriculture), Service Providing (retail, healthcare, etc.), or Government/Education. While the occupations may be similar in different industries, the focus of the work and work culture may be quite different in different types of industry. Twenty-four percent of the **seeking different employment** are in the Goods Producing sector.

Seeking Workforce Characteristics

Seeking Different Employment	20,291
Years on Job	7.3
Willing to Commute One Way	22.7
Current Average Wage	\$12.76
Desired Average Wage	\$16.43
Household Income	\$35,522
Average Age	41.6
Male/Female Ratio	39.6/60.4
Working a Second or Part Time Job	16.7%
Only Job Part Time or Temporary	13.3%
Employer Doesn't Provide Health Insurance	36.7%
No Health Insurance	23.3%
No Retirement Benefits	53.3%

Seeking Education Attainment

20,291	
Less than high school	6.7%
High school or equivalent	23.3%
Some college or associate's degree	53.3%
Bachelor's degree	13.3%
Advanced degree	3.3%
Seeking Different Employment	20,291

Seeking Primary Industry Sector/Past Employment

Goods Producing	30.0%
Service Providing	50.0%
Government/Education	20.0%
Seeking Different Employment	20,291

Willing to Change

The **worker available workforce** in the Overall MAEDC ALM is 86,381. Those willing to change number 32,465. See the following table for more characteristics of this group.

Age and Gender

The mean or average age of this group is 46 years. The respondents are distributed among all age ranges: 18 to 29 (22.6%), 30 to 54 (60.5%), and 55 to 64 (16.9%). Males and females represent a 58/42 proportion of those willing to accept different employment.

Education and Training

Eighty-one percent of the **willing to change** respondents in the ALM have some post high school education and 37.5 percent possess four-year degrees or higher. The **willing to change** subset has a slightly higher education attainment level of 81.2 percent with some post-high school education compared to 70.0 percent of the **total available workforce** of 113,435.

Twenty percent (20.8%) of the **willing to change** respondents stated that experience, training, and educational opportunities would be an important consideration in accepting a new job.

Work Experience and Environment

To gain perspective on the types of workers available for new or different employment, survey respondents were asked to classify their previous

occupations and industry experience as Goods Producing (manufacturing, construction, mining, or agriculture), Service Providing (retail, healthcare, etc.), or Government/Education. While some occupations may be similar in different industries, the impact of the work and work culture is affected by the type of industry. Twenty-one percent of the **willing to change** segment is in the Goods Producing sector.

Willing to Change Workforce Characteristics

Willing to Change Workforce Characteristics	
Willing to Change	32,465
Years on Job	9.8
Willing to Commute One Way	22.6
Current Average Wage	\$24.14
Desired Average Wage	\$23.78
Household Income	\$53,548
Average Age	45.6
Male/Female Ratio	58.4/41.6
Working a Second or Part Time Job	16.7%
Only Job Part Time or Temporary	6.3%
No Employer-Provided Health Insurance	18.7%
No Health Insurance	6.3%
No Retirement Benefits	35.4%

Willing to Change Education Attainment

Willing to Change Education Attainment	
Less than high school	1.5%
High school or equivalent	17.3%
Some college or associate's degree	43.8%
Bachelor's degree	27.1%
Advanced degree	10.4%
Willing to Change	32,465

Willing to Change Primary Industry Sector/Past Employment

Willing to Change Primary Industry Sector/Past Employment	
Goods Producing	20.8%
Service Providing	62.5%
Government/Education	16.7%
Willing to Change	32,465

Non-Worker Available Workforce

Using only the unemployed persons as determined by the Bureau of Labor Statistics (BLS) would overlook sources of potential labor like homemakers and retirees who would be willing to enter or reenter the workforce if the right opportunity arose. GSG uses non-worker as part of its Area Labor Market (ALM) studies

which includes three subsets: **unemployed**, **homemaker**, and **retired** in the non-worker segment.

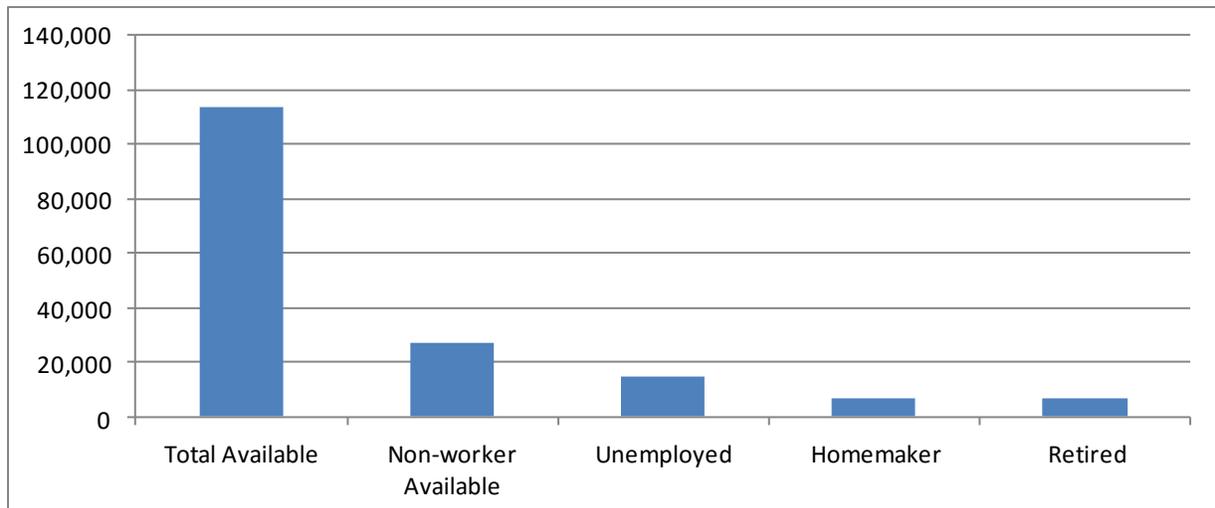
Including these subsets in the analysis provides a more accurate assessment of the potential workforce in the ALM. Of the respondents interviewed, 23.8 percent stated they were non-working. By questioning these respondents about seeking employment or their willingness to accept an employment offer, the survey identified 27,054 in the **unemployed**, **homemaker**, and **retired** who stated they would accept with the right opportunity.

Analyzing the subsets provides unique characteristics for better understanding the available workforce. A further distinction in the non-working group of those actively seeking employment and those not actively seeking employment but willing to work or accept employment with the right opportunity includes wages, benefits, work culture, transportation, childcare, scheduling, etc. The following sections provide a profile of the non-working **unemployed**, **homemakers**, and **retired** respondents.

Non-worker Breakout

Category 18-64	Overall	Percent
Total Available*	113,435	100.0%
<i>Non-worker Available (Willing To Work)</i>	27,054	23.8%
Unemployed	14,880	13.1%
Homemaker	6,466	5.4%
Retired	6,866	5.4%

Non-worker Available Population



Unemployed

Of those who responded who are **unemployed**, 54.6 percent are seeking employment with the right opportunity. It is estimated that 8,897 are willing to return to work if presented with the right opportunity. The 14,880 represent both those seeking employment (8,897) and those willing with the right opportunity (5,983). The following table provides the general characteristics of this subdivision.

Age and Gender

The average age of this group is 43.8 years of age. The respondents are distributed among all age ranges: 18 to 29 (41.7%), 30 to 54 (44.1%), and 55 to 64 (14.2%). Men make up 51.4 percent and females 48.6 percent seeking or willing to accept employment.

Education and Training

Sixty-three of the **unemployed** respondents in the ALM have some post-high school education. In comparing the **unemployed** subset to other subsets shows the **unemployed** tend to be the least educated with only 63.2 percent having some college and compares to the overall population at 70.0 percent.

Work Experience and Environment

To gain perspective on the types of skills possessed by the **total available workforce**, especially those in the non-working segment, survey respondents were asked questions about the type of industry where their previous occupations and industry experience

were gained. These categories include Goods Producing (manufacturing, construction mining or agriculture), Service Providing (retail, healthcare, etc.), or Government/Education. While the occupations may be similar in different industries, the focus of the work and work culture may be quite different in different types of industry. The overall unemployed segment consists of 12.2 percent of the **total available workforce**.

Reason Unemployed

Of those who identified themselves as **unemployed** (14,880) 22.7 percent stated that it was due to a major layoff or plant closing and another 31.8 percent claim disability. Of this group less than half are seeking employment with the other half stating they would be available for the right opportunity. Five percent claim they were fired or released from their jobs. In reality many of those unemployed indicating availability would be less acceptable on the demand side of today's labor market than the other categories of the available workforce.

Reason Can't Find Job

Of those responding about not finding a job, 54.6 percent state job availability while only 4.6 percent state that it is lacking necessary skills. Transportation and child care were stated by 18.2 percent and may be limiting factors for some potential workers.

Unemployed Workforce Characteristics

Unemployed	14,880
Seeking or Willing	8,897
Commute One Way	16.3
Desired Average Wage	\$14.33
Average Age	42.9
Male/Female Ratio	51.4/48.6
Household Income	\$20,083

Unemployed Education Attainment

Less than high school	9.1%
High school or equivalent	31.8%
Some college or associate's degree	50.0%
Bachelor's degree	8.6%
Advanced degree	4.6%
Unemployed	14,880

Reason Unemployed

Major Layoff or Plant Closing	22.7%
Fired/Released	4.6%
Never Employed	0.0%
Disabled	31.8%
Pension Income	0.0%
Other Income	9.1%
No Response	31.8%
Unemployed	14,880

Reason Can't Find Job

Job Availability	54.6%
Lacking Necessary Skills	4.6%
Compatibility/Personality	4.6%
Lack High School Diploma	4.6%
Transportation	4.6%
Child Care	13.6%
Not Interested/Other	4.6%
No Response	9.1%
Unemployed	14,880

Homemakers

Of those who responded as **homemakers**, it is estimated that 6,466 are willing to accept employment and will accept only with the right opportunity. The following table provides the general characteristics of this subset.

Age and Gender

The mean or average age of this group is 44 years of age compared with 44 years of age in the overall working group. The respondents are distributed among all age ranges: 18 to 29 (48.6%), 30 to 54 (31.6%), and 55 to 64 (19.9%), . Men make up 16 percent and females 84 percent seeking or willing to accept employment.

Education and Training

Less than half (48.9%) of the **homemaker** respondents in the ALM have some post-high school education with 15.6 percent earning four-year degrees or higher. In comparing the **homemaker** subset to the other subsets shows **homemakers** tend to be less educated with 48.9 percent with some college compared to the **total available workforce** at 70.0 percent.

Experience, training, and educational opportunities would be an important consideration in accepting a new job to 33.3 percent of the **homemaker** respondents.

Work Experience and Environment

To gain perspective on the types of skills possessed by the available workforce, especially those in the non-working segment, survey respondents were asked questions about the type of industry where their previous occupations and industry experience were gained. These categories include Goods Producing (manufacturing, construction mining or agriculture), Service Providing (retail, healthcare, etc.), or Government/Education. While the occupations may be similar in different industries, the focus of the work and work culture may be quite different in different types of industry. None of the **homemaker** subset have experience in the Goods Producing sector.

Homemaker Workforce Characteristics

Homemaker Workforce Characteristics	
Homemaker	6,466
Commute One Way	20.0
Desired Average Wage	\$13.14
Average Age	43.8
Male/Female Ratio	16.0/84.0
Household Income	\$44,719

Homemaker Education Attainment

Homemaker Education Attainment	
Less than high school	11.1%
High school or equivalent	44.4%
Some college or associate's degree	33.3%
Bachelor's degree	11.1%
Advanced degree	0.0%
Homemaker	6,087

Retired

Of those who responded as **retired**, it is estimated that 6,866 are willing to accept employment and will accept only with the right opportunity. The following table provides the general characteristics of this subset.

Age and Gender

The mean or average age of this group is 56 years of age. The respondents are distributed in the 45 to 64 age range. Men make up 66 percent and female 34 percent seeking or willing to accept employment.

Education and Training

Less than three-quarters (71.5%) of the **retired** respondents in the ALM have some post-high school education with 41.3 percent possessing four-year degrees or higher. In comparing retirees to the other subsets shows the retirees have a higher level of education with 71.5 percent having some college compared to the **total available workforce** at 70.0 percent. This group represents a significant pool of experienced and educated workers but also higher opportunity costs to get them back in the labor market.

None of the **retired** respondents stated that experience, training, and educational opportunities would be important in accepting a new job.

Work Experience and Environment

To gain perspective on the types of skills possessed by the available workforce, especially those in the non-working segment, survey respondents were asked questions about the type of industry where their previous occupations and industry experience were gained. These categories include Goods Producing (manufacturing, construction mining or agriculture), Service Providing (retail, healthcare, etc.), or Government/Education. While the occupations may be similar in different industries, the focus of the work and work culture may be quite different in different types of industry. None of the **retired** subset have experience in the Goods Producing sector.

Retired Workforce Characteristics

Retired Workforce Characteristics	
Retired	6,866
Commute One Way	20.5
Desired Average Wage	\$19.67
Average Age	56.1
Male/Female Ratio	65.6/34.4
Household Income	\$55,772

Retired Education Attainment

Retired Education Attainment	
Less than high school	0.0%
High school or equivalent	44.4%
Some college or associate's degree	30.2%
Bachelor's degree	26.2%
Advanced degree	15.1%
Retired	6,087

Desired Wages and Benefits

Wages and benefits rank high among workers and non-workers in the **total available workforce** when making an opportunity assessment for potential employment. While wage and benefit costs are important for employers when assessing a workforce market, of equal or greater importance is the quality and availability of the necessary skills and talent of the labor force. The greater the quality and availability of the skills and talent for increased productivity, the more likely higher wages and benefits will follow. Competitiveness in the global economy means producing goods and services competitive in price and quality in the market place.

Desired Benefits

Salary and wages appear to be a top motivator for changing jobs, with health care, retirement, flexible hours, and experiences, training, and education following. Salary and wages rated higher for the **worker available** than the **non-worker available** while health and flexible hours rated higher than retirement benefits for benefit areas.

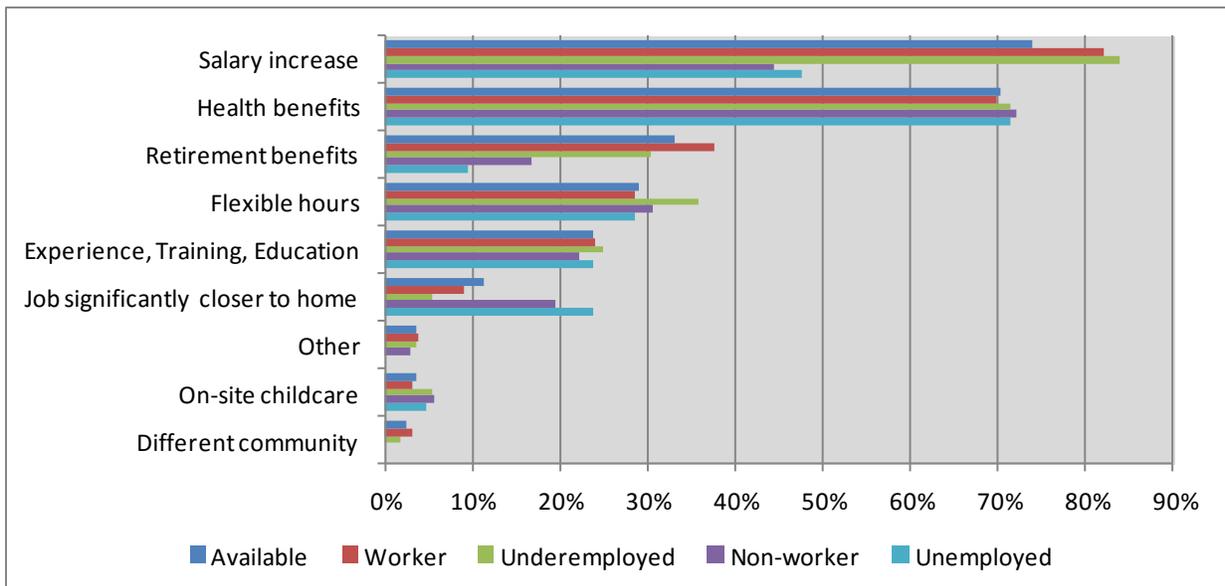
Desired Benefits by Group

Category	Available	Worker	Under-employed	Non-worker	Un-employed
Health benefits	70.4%	69.9%	71.4%	72.2%	71.4%
Experience, Training, Education	23.7%	24.1%	25.0%	22.2%	23.8%
Salary increase	74.0%	82.0%	83.9%	44.4%	47.6%
Retirement benefits	33.1%	37.6%	30.4%	16.7%	9.5%
On-site childcare	3.6%	3.0%	5.4%	5.6%	4.8%
Flexible hours	29.0%	28.6%	35.7%	30.6%	28.6%
Different community	2.4%	3.0%	1.8%	0.0%	0.0%
Job significantly closer to home	11.2%	9.0%	5.4%	19.4%	23.8%
Other	3.6%	3.8%	3.6%	2.8%	0.0%

Multi-select options, percents will not total to 100%

The **non-worker available workforce** has a higher preference for flexible hours and jobs closer to home than the **worker available** group. The **underemployed**, which is a subset of the **worker available workforce**, has a higher percentage of interest in benefit preferences to change jobs than the worker segment. The **underemployed** also have lower age and higher education attainment levels.

Available Workforce Desired Benefits



Desired Wage Rate Ranges

All wage and salary requirements expressed by respondents are presented in hourly rates. Appendix A presents an easy conversion table to annual, monthly, or weekly rates. Seven percent of the **total available workforce** would be interested in employment with a wage of up to \$9.99 per hour. It is estimated that 85,054 people or 63.8 percent of the **total available workforce** would be interested in a new or different employment with a wage of up to \$20.00. Ten percent would require \$31.00 or more for a new job opportunity. Those that currently hold jobs would require a higher desired wage than the non-worker in the available workforce.

Available Workforce Desired Wage Rate Ranges

\$9.99 or Less	\$10.00 - \$10.99	\$11.00 - \$11.99	\$12.00 - \$12.99
6.7%	12.9%	3.1%	6.1%
\$13.00 - \$13.99	\$14.00 - \$15.99	\$16.00 - \$17.99	\$18.00 - \$19.99
2.5%	21.5%	6.7%	4.3%
\$20.00 - \$21.99	\$22.00 - \$24.99	\$25.00 - \$27.99	\$28.00 - \$30.99
11.0%	2.5%	6.7%	6.1%
\$31.00 - \$33.99	\$34.00 - \$36.99	\$37.00 - \$39.99	\$40.00 or More
0.0%	3.1%	1.2%	5.5%

By comparing the wage rate ranges by area labor market location and by **worker and non-worker available workforce** groups, the various preferences are more focused.

Desired Wage Rate by Available Workforce Group

Category	Overall		Worker		Non-Worker		Underemployed	
	Available Workforce	Percent						
\$9.99 or Less	7,600	6.7%	4,060	4.7%	3,977	14.7%	2,382	7.3%
\$10.00 - \$14.99	31,989	28.2%	22,805	26.4%	9,550	35.3%	9,494	29.1%
\$15.00 - \$19.99	32,669	28.8%	24,791	28.7%	7,359	27.2%	9,494	29.1%
\$20.00 - \$24.99	15,314	13.5%	12,093	14.0%	3,192	11.8%	5,351	16.4%
\$25.00 - \$29.99	7,600	6.7%	6,738	7.8%	785	2.9%	1,794	5.5%
\$30.00 - \$34.99	8,394	7.4%	8,033	9.3%	595	2.2%	2,382	7.3%
Over \$35.00	9,755	8.6%	8,033	9.3%	1,596	5.9%	1,794	5.5%
Total:	113,435	100.0%	86,381	100.0%	27,054	100.0%	32,625	100.0%

Desired Wage Rate By Industry and Occupation

The Government/Education industry sector has the highest desired wage of \$22.17 with the Service Providing industry sector having the lowest at \$20.72. The management occupation group has the highest desired wage at \$51.56 and those currently non-working have the lowest at \$14.84.

Desired Wage Rate by Industry

Category	
Government / Education	\$22.17
Goods Producing	\$21.58
Service Providing	\$20.72

Desired Wage Rate by Occupation

Management	\$51.56
Production/Repair/Installation	\$21.44
Professional/Technical	\$21.88
Services	\$17.78
Non-Working Available	\$14.84

Desired Wage Rate by Percent of Available Workforce



The higher the level of desired wage, the higher the percentage of the population that would take that wage. About 50 percent of **total available** would be satisfied with \$15.00 an hour or less and about 75 percent of the **total available** would be satisfied with \$20.00 an hour or less. To reach 50 percent of the worker available would require \$16.00 an hour or less and \$23.00 an hour or less for 75 percent.

Occupation Actual and Desired Wages

The following table provides a detailed analysis of the **total available workforce** by occupation, average actual wage, and average desired wage. Comparing the actual average wage with the desired wage shows the expectations of the **worker available workforce** in accepting a new job. The Management and Professional/Technical occupation clusters indicate the highest desired wages, with Management 43 percent over actual wages and Professional/Technical 25 percent over. Both the Production/Repair/Installation and Services clusters indicate only a 7 percent higher desired wage compared to the actual wage.

The Professionals: Doctors, Lawyers, Engineers, etc. occupation category has the second highest actual average wage of \$29.03 with an average desired wage at \$27.75. This may indicate a high supply and low demand for those occupations.

Occupation Actual and Desired Wages

	Available Workforce	Average Actual Wage	Average Desired Wage
Management	6,133	\$36.08	\$51.56
Managerial, Executive, Business Owners, Farmers, Supervisory	6,133	\$36.08	\$51.56
Production/Repair/Installation	6,133	\$19.96	\$21.44
Maintenance, Installations, and Repairs, etc.	4,319	\$22.49	\$23.86
Production: Factory Assembly, Fabrication, Construction, and Mining	1,814	\$13.92	\$15.67
Professional/Technical	20,472	\$17.54	\$21.88
Business Sales: Finance, Insurance, Real Estate, Wholesale, Industrial, etc.	5,528	\$16.40	\$18.22
Professionals: Doctors, Lawyers, Engineers, Accountants, Professors, etc.	3,110	\$29.03	\$27.75
Computer Technology, Science, Math, and Engineering	2,505	\$21.31	\$25.27
Protective: Police/Fire/Military/Regulators/Investigators and Postal	2,505	\$18.63	\$19.75
Teachers, Instructors, Trainers, Writers, Researchers, etc.	6,824	\$17.07	\$21.70
Services	53,643	\$16.64	\$17.78
Administrative Support: Shipping/Receiving, Secretaries, Computer Operators, etc.	5,528	\$14.25	\$16.44
Business Office and Clerical Operations	4,924	\$16.47	\$17.13
Consumer Services, Retail, Restaurant, Hotel, Food Services, etc.	10,452	\$11.16	\$13.35
Delivery/Drivers/Couriers	1,210	\$14.82	\$21.50
Government Office and Clerical Operations	3,715	\$15.21	\$21.20
Health, Social, Community, Personal Care, and Recreation Services	14,857	\$20.60	\$19.91
Other Blue Collar: Laborers, Farm Hand, Janitor, Warehouse Workers, etc.	9,847	\$16.73	\$17.50
Other White Collar Workers	3,110	\$22.86	\$21.25
Non-Worker Available	27,054	N/A	\$14.84
Homemaker	6,087	N/A	\$13.14
Retired	6,087	N/A	\$19.67
Unemployed	14,880	N/A	\$14.33

Adjustments have been made to reflect anomalies in the survey data

In the five occupation clusters with lower desired wages than actual wages, it could be assumed some opportunities exist for a competitive, experienced, and educated workforce. The lower the expectations for desired wages of \$14.84 for the **non-worker available** is particularly noteworthy compared to those who are employed.

Commuting Patterns and Preferences

The preferred commute of the **worker available workforce** in the 8-county Area Labor Market ALM is 25.8 minutes/miles one way. The overall commute preference of the **total available workforce** is 24.3 minutes/miles one way. The **total available workforce** indicates it is open to commuting for the right employment opportunity. The table shows 133,450 people or 85.1 percent of the **total available workforce** would commute more than 10 minutes/miles, one way, for work. It also shows that 34,128 people or 25.6 percent of the **total available workforce** are willing to travel more than 30 minutes/miles and 16,964 people 12.7 percent will commute more than 50 minutes/miles.

Willingness To Commute By Available Workforce Groups

Where individuals live within the ALM will influence their desire to commute to work. The transportation routes and options to employment centers also have a big influence where people work. The community/city may be the largest economic center for many of the smaller communities in the area. Individuals from the surrounding communities seeking job opportunities and competitive wages/benefits may be resigned to the fact that they will have to commute some distance to a new employer.

The following table illustrates the different commuting preferences of those who are employed and those who are non-employed. Those who are employed show a relative similarity of about 23 to 29 minutes/miles one way to work since they are already employed and their urgency for employment is less than those who are non-employed. The three groups in the non-working group show a considerable difference in that **unemployed** are less

willing to travel further and are less open in their employment options than either the **homemakers** or the **retired**. The non-working **unemployed**, **homemaker**, and **retirees** prefer a shorter commute than **worker available** but also are more open to part-time and more flexible work arrangements. The average distance that the **homemaker** in the ALM is willing to travel is 20.0 minutes/miles one way. In general, **retired** people are not as willing to commute long distances to work; however, those in the 8-county ALM are willing to travel 20.5 minutes/miles one way for employment opportunities.

Four percent (4.3%), or 4,444, of the **worker available workforce** that commute to work outside the 8-county MAEDC ALM. Of this number, 90.0 percent identify themselves as **underemployed** and the remaining are **seeking different employment** or are **willing to change** for the right opportunity.

Preferred Distance/Travel Time

Less than 10 miles	18,122
10 - 30 miles	72,486
31 - 50 miles	15,659
51+ miles	15,476
Total Available Workforce	113,435

Available Workforce Group Preferred Distance/Travel Time

Total Available Workforce	24.3
Worker Available Workforce	25.8
Underemployed	29.2
Seeking Different Employment	22.7
Willing To Change	22.6
Non-Worker Available Workforce	18.3
Unemployed	16.3
Homemaker	20.0
Retired	20.5

Willingness to Commute By Occupation and Industry

It is usually easier to change from one major industry group to another than it is from one primary occupation field to another. While skills and occupation may be similar in the different industry groups, personal attitudinal characteristics, sometimes known as soft skills, may be more important to workers and employers where focus is to people and customer service vs. systems and process. There may also be differences in wages and benefits and other work-related characteristics.

There are three broad categories of interest when working: people, data, and things. Most people have preference for one, but most are adaptable to all three. A primary interest in one of the three may be an indicator of success in certain occupations. A stronger interest in people may lead to occupations in management and services. An interest in working with things may point to occupations in Production. Professional/Technical may require a stronger interest in data and analytical skills. The survey results for MAEDC showed interest in People with 43.6 percent, Data with 7.1 percent, and Things with 10.0 percent. Thirty-nine percent identified an interest in all three.

Changing Primary Employment Field

Changing jobs from one field to a different type of position is one way commuting patterns can change over time. For many individuals changing jobs to another employment field may not be something they are willing to do. The adaptability and flexibility of the workforce is important in the creation of new jobs and may require job training and other type of programs where jobs disappear because of competition and technology. If a large percentage of those employed and non-employed are unwilling to change their occupations or job positions, it could limit the type of employer who can enter the area labor market.

The following table shows the percentage of those in the various available workforce groups willing to change their primary employment field. The higher the percentage, the greater the willingness to change either occupation or industry.

Commuting by Occupation Group

	Minutes/ Miles
Management	20.0
Production/Repair/Installation	40.5
Professional/Technical	28.4
Services	24.9
Non-Working Available Workforce	18.3
Overall Average	24.3

Commuting by Industry Type

	Minutes/ Miles
Goods Producing	27.5
Government/Education	23.9
Service Providing	25.5

Willing To Change Primary Occupation

	Available Workforce	Willing To Change	Percent
Worker Available	86,381	74,892	86.7%
Underemployed	32,625	29,199	89.5%
Seeking Different Employment	20,291	18,932	93.3%
Willing To Change	32,465	25,712	79.2%
Non-Worker Available	27,054	23,293	86.1%
Unemployed	14,880	12,053	81.0%
Homemaker	6,087	6,087	100.0%
Retired	6,087	5,070	83.3%

Willing To Change Primary Industry Group

	Available Workforce	Willing To Change	Percent
Worker Available	86,381	76,706	88.8%
Underemployed	32,625	30,896	94.7%
Seeking Different Employment	20,291	18,262	90.0%
Willing To Change	32,465	26,264	80.9%
Non-Worker Available	27,054	23,293	86.1%
Unemployed	14,880	12,752	85.7%
Homemaker	6,087	5,411	88.9%
Retired	6,087	5,070	83.3%

Conclusion

This study assesses the supply side of labor and provides information for the MAEDC Area Labor Market about commuting patterns, current and desired wages, worker occupation and industry, experience, and education. The **total available workforce** is determined from the workers and non-workers perspective and provides information for the supply side of labor markets. The demand side is determined from the employer's perspective and provides information about the skills, quality, and availability of the laborforce.

While considerable information about workforce issues is available at the national and state level, less information is available at the local and regional level, with adequate data to make objective decisions. While employers are concerned about over-employment and workers with deficient skills and who are under-qualified, the worker and community are concerned about underemployment and workers who have excess skills who are over-qualified for those jobs and presents opportunities for expansion and new investments. Although the dynamics of the workplace will not change dramatically, employers will continue to recruit the best employees with the best skills for the best value and workers will continue to seek the best jobs with the best compensation package and work environment. The balance for a competitive workforce is critical with the employer, community, education, and worker all having a major stake in developing a skilled and productive workforce with a goal of a just-in-time skill and talent pool to meet the demand.

With increasing workforce challenges for the future anticipated from the demographic changes in an aging population, the question of a more active approach to increasing the labor pool with productive workers is crucial. Weighing the cost for education and other programs with the social and economic benefits will be key in remaining competitive in a global economy.

Appendices

Appendix A—Wage and Salary Conversion Rates

The following data represents pay rates in four different ways. All wage and salary rates reported in the interviews are presented in this report in hourly rates. Selected conversions may add perspective to the hourly rates. Figures presented below are rounded and based on a 40-hour workweek.

Wage and Salary Conversion Chart			
Hourly	Weekly	Monthly	Annually
\$8.00	\$320.00	\$1,387.00	\$16,640.00
\$9.00	\$360.00	\$1,560.00	\$18,720.00
\$10.00	\$400.00	\$1,733.00	\$20,800.00
\$11.00	\$440.00	\$1,907.00	\$22,880.00
\$12.00	\$480.00	\$2,080.00	\$24,960.00
\$13.00	\$520.00	\$2,253.00	\$27,040.00
\$14.00	\$560.00	\$2,427.00	\$29,120.00
\$15.00	\$600.00	\$2,600.00	\$31,200.00
\$16.00	\$640.00	\$2,773.00	\$33,280.00
\$17.00	\$680.00	\$2,947.00	\$35,360.00
\$18.00	\$720.00	\$3,120.00	\$37,440.00
\$19.00	\$760.00	\$3,293.00	\$39,520.00
\$20.00	\$800.00	\$3,467.00	\$41,600.00
\$21.00	\$840.00	\$3,640.00	\$43,680.00
\$22.00	\$880.00	\$3,813.00	\$45,760.00
\$23.00	\$920.00	\$3,987.00	\$47,840.00
\$24.00	\$960.00	\$4,160.00	\$49,920.00
\$25.00	\$1,000.00	\$4,333.00	\$52,000.00
\$26.00	\$1,040.00	\$4,507.00	\$54,080.00
\$27.00	\$1,080.00	\$4,680.00	\$56,160.00
\$28.00	\$1,120.00	\$4,853.00	\$58,240.00
\$29.00	\$1,160.00	\$5,027.00	\$60,320.00
\$30.00	\$1,200.00	\$5,200.00	\$62,400.00
\$31.00	\$1,240.00	\$5,373.00	\$64,480.00
\$32.00	\$1,280.00	\$5,547.00	\$66,560.00
\$33.00	\$1,320.00	\$5,720.00	\$68,640.00
\$34.00	\$1,360.00	\$5,893.00	\$70,720.00
\$35.00	\$1,400.00	\$6,067.00	\$72,800.00
\$36.00	\$1,440.00	\$6,240.00	\$74,880.00
\$37.00	\$1,480.00	\$6,413.00	\$76,960.00
\$38.00	\$1,520.00	\$6,587.00	\$79,040.00
\$39.00	\$1,560.00	\$6,760.00	\$81,120.00
\$40.00	\$1,600.00	\$6,933.00	\$83,200.00
\$41.00	\$1,640.00	\$7,107.00	\$85,280.00
\$42.00	\$1,680.00	\$7,280.00	\$87,360.00

Appendix B—Methodology

A primary goal of any Area Labor Market (ALM) or labor shed analysis is to estimate the potential availability of workers and determine how well the surrounding geographical areas are able to provide a stable supply of workers to the central focused core of the ALM or labor shed.

A key source of good employees is the category of the underemployed, those individuals who are now working but desire a better job and who possess the skills, education, and experience to qualify for better jobs. Underemployment or underutilization of skills or experience is a significant issue in many communities and is an important element for employers assessing a community for location or expansion. The availability of highly skilled and experienced labor is among the top three important location factors for businesses considering expansions or relocations (Area Development Annual Surveys).

The key advantage of an Area Labor Market (ALM) analysis is that it expands the pool of potential workers by including workers excluded from the Civilian Labor force (CLF). It also allows researchers to examine those individual members of the ALM pool who have a propensity to consider a job opportunity given their employment expectations. Employers' evaluating the labor component are also more likely interested in the population age segment 18-64 than in the CLF representing *the civilian non-institutional population, 16 years of age and over classified as employed or unemployed*. Even with those restrictions, employers should note that, in practice, not all members of the *available labor* would apply for a new job opportunity. The reader is further cautioned that, while the number of workers identified as available with their skills, experience, education, and costs as accurate, all of those individuals may not be acceptable candidates for an employer. Their previous work records, stability, integrity, intelligence, appearance, and other factors are not considered in this report.

Published government statistics report wages and employment for the entire labor of an area, even though most of that labor has no interest in changing jobs. This report, prepared by Growth Services, includes data on those people in the area ***who desire to change jobs and who would be potential workers of employers with the right opportunity***. Whereas, the BLS reports average wages, this report provides the number of available workers for an employer in various desired wage ranges. It includes the unemployed who are actively looking for work as well as those who would enter the labor under the right conditions or opportunities including homemakers, and retirees.

The labor analysis will start with a focus or identification on a central zip code, community, county, or multi-county area to determine the boundaries for the area to be assessed. It can also decide to quantify those outside the central Core *willing to change jobs and to commute and work in the central core area*.

A random household telephone survey and targeted social media surveys have been ways for collecting data within the Area Labor Market. The survey is designed by Growth Services and conducted by call center or social media research firms. The overall goal of the process is to

collect a sufficient number of valid phone surveys completed by respondents 18 to 64 years of age. Validity of a sufficient number of survey results to a confidence of +/-5 percent is necessary with query or drill down validity of +/-10-15 percent. To ensure that an even distribution of respondents is achieved, a proportional number of completions are conducted by county population, age segments, and gender. It is important to note that the projected results are based on relatively small sample size

The survey is designed and developed by The Growth Services Group (GSG) and approved by the client, employers, or Economic Development organization.

Survey interviewers pose questions to determine the respondents' gender, age, education level, place of residence, and current employment status. Employed respondents also identifies the location of their employer (not name), place of work, employer type by industry, occupation, years of employment in their occupation, employment status, current salary or wage, number of jobs currently held, and distance traveled to work. Employed respondents are then asked how likely they are to change employers or employment, how far they would be willing to travel for employment, the wage desired for them to change employment, and the benefits required for new employment. *Underemployment* is determined by examining those employees who stated they possessed experience and additional education/skills that are not utilized in their current position.

Respondents in the 18-64 year age range self-identifying themselves as working, unemployed, homemaker, retired, military or student are asked a series of questions to determine what job characteristics and benefits were most important for them when considering employment, the reasons for unemployment, and how far they would be willing to travel to accept employment. Information on previous employers and skills was also gathered for these sectors. The employer type grouped employers into three main categories by *Goods Producing*, *Service Providing*, and *Government/Education*. This allows employers evaluating the labor to view occupations from a work culture perspective as well as skills and experience. Once completed, the results of the survey are compiled and queried or cross-tabulated to determine the relationship between the variables of key interest areas, various internal geographic areas or labor sheds, and the entire surveyed ALM. Documenting and analyzing the ALM survey results by area and characteristics, provides new insight into the area's *available labor* that is currently unavailable in any other form.

A final note, prior to data processing, the GSG applies a proprietary process to the analysis of the data to correct for invalid responses. An individual indicating they would take a new job but also indicating the desire for increased or decreased pay that is unreasonable is not counted in the results. Further the process considers that to be counted as *underemployed* an individual must be currently employed and willing to take another job at a pay rate commensurate with personal skills, education and experience.

Our propriety data applications allow for large multi-county partnerships for cost reductions. Our largest single Labor Availability study consisted of five partners and 27 counties, with each partner receiving its own labor shed breakout report from the same database, making the project more cost effective for all partners. All survey data is retained and available for further analysis on specific areas of interest (pricing may vary). The individual partner report results are proprietary and for your use only and are not shared with other partners. Only the database is common and by a programming application, separate labor shed reports can be developed. The survey questionnaire has to be uniform across the entire project area.