

Rolla and Surrounding Area Labor Availability Study

A collaboration of:

North Dakota Department of Commerce

University of North Dakota – Social Science Research Institute

Job Service North Dakota

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Major Findings

Summary of Findings

Site developers, economic planners, and others will often refer to the unemployment rate to determine if there is an available labor force. While a consistent measure across the country, it is incomplete. Being unemployed is defined as not working but actively seeking work. However, some individuals who are working would be interested in changing jobs or occupations, others would want additional hours, and some are planning to find work within the year. These individuals are not normally counted as part of the available labor pool in an area. In 2002, the state of North Dakota, in cooperation with local partners, funded a study to measure the available labor pool.

In the area surrounding Rolla, there exists an available labor force of 6,610 individuals, or approximately 33 percent of the adult population. The majority of these individuals are currently working, but would be willing to consider alternative jobs. The labor force (those employed and unemployed) is estimated to be 53 percent of the adult population or 10,650 individuals.

Characteristics of the Potential Job Seekers

| | <u>Number*</u> | <u>Percentage</u> |
|---|----------------|-------------------|
| Potential Job Seekers** | 6,610 | 33.1 |
| Actively Seeking Work | 1,120 | 5.6 |
| Planning to Look Within the Year | 640 | 3.2 |
| Interested in Changing Jobs | 3,860 | 19.3 |
| Interested in Additional Jobs | 1,720 | 8.6 |
| Those Discouraged From Looking | 440 | 2.2 |

*Rounded to the nearest 10.

**The numbers will not total to the Potential Job Seekers, as duplication is possible.

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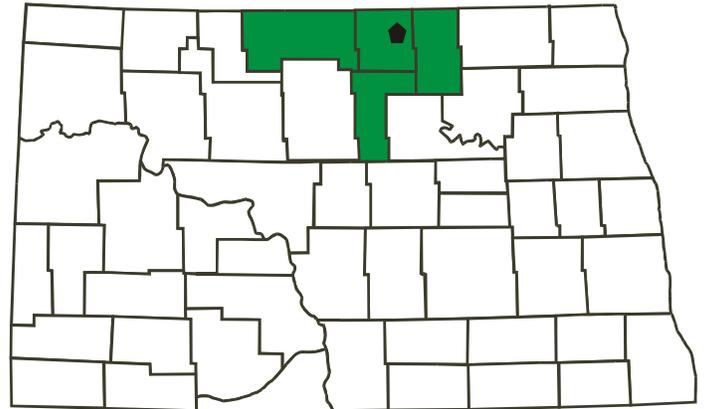
Introduction

Scope of the Study:

During the spring of 2002, the state of North Dakota sponsored a study that to identify the available labor pool in those communities and counties that provided matching funds to conduct a labor availability survey. This was done in collaboration with the Workforce Development Division of the North Dakota Department of Commerce, Job Service North Dakota, and the Social Research Institute (SSRI) at the University of North Dakota.

The purpose of the survey was to explore the potential labor force in and around Rolla, located in the Ramsey County in the north central portion of the state. A questionnaire was designed to identify the characteristics and the size of the potential labor force in that area. A telephone survey was conducted by the SSRI, who contacted 1,029 respondents.

The core area for this survey included respondents from Rolette, Towner, Pierce, and Bottineau Counties. These areas were included because of established commuting patterns in and around Rolla. The area highlighted in the adjacent map indicates the geographic area included in this report.



Location of Rolla and the Area Studied

Potential Job Seekers

Definitions of Potential Job Seekers:

At the time of the study, Job Service North Dakota reported the unemployment rate for the area included in the study was around 8.8 percent. The study focused only on adults 18 years and older. That focus is different from the defined labor force used by the U.S. Department of Labor and the Census Bureau, which use 16 years and older. In order to be considered unemployed, one has to be not working and actively seeking work. However, the potential labor pool includes not only those who are actively seeking work, but also those who are working and may be interested in working for another firm. In this survey, the identified Potential Job Seekers (PJSs) were divided into five categories:

1. The unemployed.

Those who are 18 and older, unemployed and actively seeking work.

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2. Individuals who plan to seek a job within the next year.

Those who are not working, not seeking work, but plan to look for work within the year.

3. People who are working, but would be willing to change jobs.

Using Bureau of Labor Statistics definitions, these people would be classified as employed. This group includes those individuals who are presently working who may or may not be actively seeking work, but would consider changing employers.

4. People who are currently working and are willing to take an additional job.

Like the previous group, these individuals would be defined as employed. However, they would be willing to work an additional job and, as such, are part of the available labor pool for different businesses.

5. Individuals who are discouraged and do not look for work.

For the purpose of this study, the discouraged worker is defined as someone who is not working, is not actively seeking work, or planning to find a job within the next year, but would accept a job if it met their minimum acceptable wage requirements.

Population Characteristics

General Population Characteristics:

Based on the 2000 Census, Rolette County has slightly more females (50.7 percent) than males (49.3 percent). The adult population 25 and older is not as well educated as the national average with 73.7 percent having completed high school, compared to 80.4 percent nationally. Compared to the nation, the population of Rolla is less mobile, with 35.6 percent of the population residing in a different residence than the one where they lived in 1995. Nationally, 46 percent of the population moved from their 1995 residence and lived elsewhere in 2000. The median age for the general population in Rolette County is 28.9.

According to the Rolla Economic Development Corporation, the labor market area for Rolla extends beyond its borders. Using the area identified, the Census reported 19,979 individuals 18 years or older who lived in the four county area.

Sample Population Characteristics:

The sample gathered for the Rolla labor area closely mirrors the general population characteristics. The sample reported slightly more female respondents than males, 52.1 to 47.9 percent. This is within the acceptable range of plus or minus 5 percent. In addition, the unemployment rate reported by the study was 5.6 percent, which is lower than the reported unemployment rate of 8.8 percent for the area. The median age for the respondents was 49 years of age.

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Employment Status:

According to the survey, about 46 percent of the adult population, or approximately 9,530 individuals are currently working for wages in the Rolla labor market area.

Active Labor Force:

The active labor force includes those who are working (9,530) and the 1,120 who are actively seeking work, or a labor force of 10,650.

Inactive Labor Force:

The inactive labor force includes those who are planning to look for work within the next year (640 individuals), as well as those who are discouraged from seeking work (440 individuals). These individuals are not included in the unemployment rate, as they are not working or actively seeking work.

Characteristics of the Employed Labor Force

Employed Workers:

The 9,530 employed in the area, work an average of 41.2 hours a week. Those involved in farming and agricultural production were most likely to work longer hours than any other group. Those involved in miscellaneous occupations (transportation) worked the fewest average hours, 34.9 hours per week. This indicates a number of part-time jobs for this occupational group. The following table reports the average hours worked by occupational group.

| Average Hours Worked by Occupation | |
|---|------------------------------------|
| <u>Occupational Group</u> | <u>Average Hours Worked</u> |
| Professional, Technical and Managerial | 42.5 |
| Clerical and Sales | 36.6 |
| Service | 37.1 |
| Farming and Agricultural Production | 59.6 |
| Processing | 45.2 |
| Machine Trades | 51.1 |
| Benchwork | 42.4 |
| Structural Work | 47.5 |
| Miscellaneous | 34.9 |

Age Distribution:

The median age for those who are working is 44 years of age. The youngest occupational group is comprised of those involved in benchwork occupations with a median age of 38. The oldest group, with a median age of 48, was those who worked in processing occupations.

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Median Age of Occupations

| <u>Occupational Group</u> | <u>Median Age</u> |
|--|-------------------|
| Professional, Technical and Managerial | 46 |
| Clerical and Sales | 44 |
| Service | 42 |
| Farming and Agricultural Production | 46 |
| Processing | 48 |
| Machine Trades | 42 |
| Benchwork | 38 |
| Structural Work | 41 |
| Miscellaneous | 44 |

Educational Attainment:

The level of education of those currently working is impressive. The typical worker has at least some college, but this varies as some occupations have differing levels of required education/training. Those in the occupational group of professionals, technicians, and managers have obtained the highest level of education. Typically, these individuals have some college education. A lower level of formal training is found in two groups: benchwork occupations and miscellaneous occupations. Individuals who are working in these occupations typically have a high school education.

Current Occupation:

The largest occupational group for the Rolla labor area consists of professional, technical, and managerial workers. The following table shows the number of employed by occupational group.

Occupations of Those Employed

| <u>Occupational Group</u> | <u>Number*</u> | <u>Percentage*</u> |
|--|----------------|--------------------|
| Professional, Technical and Managerial | 3,910 | 41.1 |
| Clerical and Sales | 1,640 | 17.2 |
| Service | 1,780 | 18.7 |
| Farming and Agricultural Production | 470 | 4.9 |
| Processing | 310 | 3.3 |
| Machine Trades | 180 | 1.9 |
| Benchwork | 410 | 4.3 |
| Structural Work | 290 | 3.0 |
| Miscellaneous | 530 | 5.6 |
| Total | 9,520 | 100.0 |

* Rounded data

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Trained in Another Occupation:

Thirty-eight percent of those currently employed are working in an occupation different from the one in which they received training. This same percentage (38) of those who are working in clerical and sales were trained as professionals, technicians, and managers. Likewise, 38 percent of the professional, technicians, and managers were working in occupations other than the one in which they were trained.

Longevity with Current Employer:

As a group, farming and agricultural production workers have the longest tenure with their current employer, with an average of 10 years. Those involved in service occupations and structural work have the shortest tenure, working for their employer for three years.

Current Wage:

Overall, the typical (median) wage for this area is \$9.62 per hour. As an occupational group, the highest typical wage is found among professional, technical, and managerial occupations with a wage of \$13.00 per hour. Professional, technical, and managerial occupations had the widest range of wages/salary. The lowest paid occupational group was involved with service occupations showing a median wage of \$7.50 per hour.

Wages of Those Employed

| <u>Occupational Group</u> | <u>Average/Mean</u> | <u>Typical/Median</u> |
|--|---------------------|-----------------------|
| Professional, Technical and Managerial | \$15.89 | \$13.00 |
| Clerical and Sales | 9.62 | 8.50 |
| Service | 8.27 | 7.50 |
| Farming and Agricultural Production | 11.03 | 10.00 |
| Processing | 11.09 | 9.88 |
| Machine Trades | 9.19 | 10.00 |
| Benchwork | 10.28 | 9.00 |
| Structural Work | 14.41 | 14.08 |
| Miscellaneous | 9.84 | 9.00 |
| Total | 12.40 | 9.62 |

Job Service North Dakota conducts other surveys that collect information on wages. The Rolla labor market area would be considered part of the East Central portion of the state. The wages reported in the labor availability survey are consistent with the wage information gathered from employers.

Current Commute Distance:

The miscellaneous occupational group was likely to commute the furthest distance with an average commute of 14 miles. The group that makes the shortest commute was made up of those who work in structural workers with a commute of 2 miles. The furthest distance reported to travel to work was 70 miles.

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Characteristics of the Available Labor Force

Available Workers:

Those individuals looking for work, planning to seek work, or would consider a different or alternative job were defined as being part of the available labor force. According to the survey, there were 6,610 individuals available for work in the Rolla labor area.

Work Status:

The majority of the available labor force is currently employed. Of the available labor force, 66 percent, or 4,400 individuals, are currently working. The majority of the available labor force (76 percent) is interested in working at jobs on a year-round basis. Around 29 percent or 170 people are currently working part-time (defined as less than 30 hours) would like to work on a full-time basis.

Additional Employment:

According to the survey, about 1,720 individuals are willing to take on an additional job. Some of these would also be willing to consider a different employer, depending on wages, benefits and working conditions.

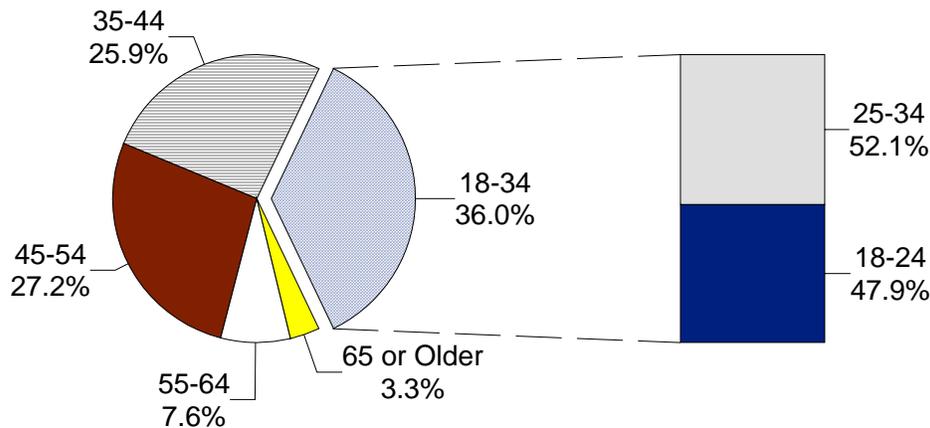
Available for Work in the Next Year:

Approximately 640 individuals reported that they plan to seek work within the next 12 months.

Age Distribution:

Of the available labor force, 2,380 individuals, or 36 percent, are under the age of 35.

Age Distribution of Respondents



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Educational Attainment:

Almost 23 percent of the available labor force are graduates of a post-secondary program of study.

Educational Attainment of the Available Labor Force

| <u>Educational Attainment</u> | <u>Number*</u> | <u>Percentage*</u> |
|-------------------------------|----------------|--------------------|
| Below HS Diploma or GED | 720 | 10.9 |
| HS Diploma or GED | 2,300 | 34.8 |
| Some College/Vo-Tech | 2,100 | 31.8 |
| Vo-Tech Graduate | 240 | 3.6 |
| College Degree | 1,040 | 15.8 |
| Advanced Degree | 200 | 3.0 |
| Total | 6,600 | 99.9 |

*Rounded Data

Last Held Occupation:

The following table shows the estimated number of individuals who reported their current job classification.

Current Occupation of the Available Labor Force

| <u>Occupational Group</u> | <u>Number*</u> | <u>Percentage*</u> |
|--|----------------|--------------------|
| Professional, Technical and Managerial | 1,520 | 34.5 |
| Clerical and Sales | 860 | 19.5 |
| Service | 1,030 | 23.4 |
| Farming and Agricultural Production | 190 | 4.3 |
| Processing | 160 | 3.6 |
| Machine Trades | 80 | 1.8 |
| Benchwork | 210 | 4.8 |
| Structural Work | 180 | 4.1 |
| Miscellaneous | 180 | 4.1 |
| Total | 4,410 | 100.0 |

* Rounded data

Occupations Trained In:

Almost 4,780 people were trained in an occupation other than the one they are, or have been, working in. Approximately 1,650 of these individuals were trained in fields requiring specialized training, including health and medicine, education, clerical, managerial, repair and mechanical technicians.

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Minimum Acceptable Wage:

Lowest Acceptable Hourly Wage of Those Currently Working

| <u>Occupation</u> | <u>Minimum Acceptable Average Wage</u> |
|---|--|
| Professional, Technical, and Managerial | \$11.44 |
| Clerical and Sales | 8.17 |
| Service | 8.07 |
| Farming and Agricultural Production | 8.60 |
| Processing | 7.46 |
| Machine Trades | 12.03 |
| Benchwork | 8.52 |
| Structural Work | 10.41 |
| Miscellaneous | 9.48 |

The median minimum acceptable wage for the available labor force was \$8.00 per hour.

Maximum Distance Willing to Commute:

Structural worker are willing to commute the furthest distance, with a median of 40 miles. Those who work in service occupations or farming and agricultural production are willing to travel the least distance, with a median of 20 miles. The typical distance for the available labor force was around 30 miles or 30 minutes.

Benefits Desired:

The most desired benefit for potential workers was health insurance, followed by a retirement plan, and then paid vacations. This pattern was consistent for all occupational groups.

Main Factor Influencing Decision to Change Jobs:

The single most important factor to entice someone to work at a different job other than his or her current occupation was pay, with 56 percent citing that factor.

Work Schedule Preference:

The majority of the available labor force would like to have some ability to have a flexible schedule at work. They would prefer to work 40 hours a week and to work during the daytime.

Education and Training Willingness by Age Distribution:

The available labor force is well educated, with 43 percent receiving training within the last three years. The type of training included: basic skills, product or sales information, interpersonal skills, how to be better organized, quality improvement, technical skills, and safety.

The available labor force is willing to be trained, if needed, for a different job. However, they would prefer to have on-the-job training, in part to take care of their existing financial responsibilities. Generally speaking, the longer the training, the fewer people who would consider that training. The most popular form of training desired is on-the-job training, with over 62 percent of the available labor force opting for that method.

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Type of Company Desired by the Available Labor Force:

The majority of the available labor force would like to work for a business involved in computer technology and information processing. The least desired firm is one involved in engineering. The following table reports the desirability of different types of companies.

Industry That is of Interest to the Available Labor Force

| <u>Industry</u> | <u>Percentage of Available Labor</u> |
|---------------------------------|--------------------------------------|
| Information Computer Technology | 68.9 |
| Health Services | 49.6 |
| Engineering | 32.6 |
| Manufacturing | 44.6 |
| Business Services Operation | 61.0 |
| Machine Trades or Construction | 36.1 |

The desirability of a particular firm is dependent on the skill sets of the available labor force. For example, of those who have a college degree or higher, about 69 percent, would like to work for an information technology firm. This same group would be the least willing to work for a firm involved in engineering or a machine trades/construction.

Interest for Specific Industries by Educational Attainment of Available Labor (Percent)

| <u>Industry</u> | <u>No HS Diploma</u> | <u>HS Graduate or (GED)</u> | <u>Some Schooling Post HS</u> | <u>Vo-Tech Graduate</u> | <u>4 Yr College Degree or Higher</u> |
|---------------------------------|----------------------|-----------------------------|-------------------------------|-------------------------|--------------------------------------|
| Information/Computer Technology | 65.7 | 72.1 | 75.5 | 58.3 | 68.9 |
| Health Services | 42.9 | 53.6 | 54.9 | 33.3 | 50.8 |
| Engineering | 42.9 | 32.1 | 36.3 | 33.3 | 24.6 |
| Manufacturing | 60.0 | 49.5 | 42.2 | 66.7 | 37.7 |
| Business Services Operation | 60.0 | 65.8 | 66.3 | 50.0 | 60.7 |
| Machine Trades or Construction | 45.7 | 37.8 | 39.2 | 58.3 | 24.6 |

Technical Skills of the Available Labor Force:

The available labor force has a variety of skills it can bring to the workplace. The typical manager has five years of experience.

Less than half of the available labor force, 44 percent, reported having experience with office suite software.

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Self-Reported Proficiency of Various Computer/IT Skills (Percent)

| <u>Technical Skill</u> | <u>Not Skilled</u> | <u>Some Skills</u> | <u>Average</u> | <u>Fairly</u> | <u>Very Skilled</u> | <u>No Answer</u> |
|------------------------------|--------------------|--------------------|----------------|---------------|---------------------|------------------|
| Word Processing | 2.3 | 5.9 | 11.1 | 12.6 | 11.1 | 57.0 |
| Using Spreadsheets | 6.5 | 10.0 | 12.0 | 7.9 | 6.7 | 56.9 |
| Using Databases | 7.6 | 11.1 | 12.3 | 6.2 | 5.9 | 56.9 |
| Using Desktop Publishing | 11.1 | 9.7 | 10.0 | 6.5 | 5.9 | 56.8 |
| Computer Programming | 6.2 | 4.1 | 2.1 | 1.6 | 0.3 | 85.7 |
| HTML Programming | 7.0 | 1.2 | 4.1 | 0.9 | 0.9 | 85.9 |
| Installing Computer Hardware | 2.9 | 2.9 | 3.2 | 2.6 | 2.3 | 86.1 |

Characteristics of the Discouraged Workforce

Characteristics of the Discouraged:

According to the survey, about 440 people would be defined as discouraged workers. A discouraged worker is someone who does not have a job, is not looking for a job, and is not planning to look for a job, but knows what pay would encourage them to become a part of the labor force.

The median age of the discouraged workers is 45, which is older than those currently working. The most common barrier for these people to seek work is working on a family farm and/or being self-employed. The lack of child care was a barrier for approximately 10 percent of the discouraged workforce.

The discouraged workers, as a group, have lower levels of education when compared to other members of the available labor force. Approximately 19 percent of the discouraged have a college degree or higher. If training were required, 55 percent would like on-the-job training.

This group does not have a great deal of experience as employees, with 57 percent not having worked for an employer within the past two years.

The minimum acceptable wage for the discouraged is \$8.50 per hour. The discouraged workers would prefer to work year round. The average distance the discouraged worker would be willing travel to work is 30 miles.

Benefits Desired:

Discouraged workers desire health insurance, followed by retirement contributions and paid vacations. Flexible scheduling was also highly desired.

The industry that appealed to the discouraged workers was manufacturing. The least desired industry is engineering.

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Percentage of Discouraged Workers Interested by Industry

| <u>Industry</u> | <u>Percentage</u> |
|---------------------------------|-------------------|
| Information/Computer Technology | 65.2 |
| Health Services | 34.8 |
| Engineering | 26.1 |
| Manufacturing | 65.2 |
| Business Services Operation | 47.8 |
| Machine Trades or Construction | 43.5 |

How the Study Was Done

A workgroup which consisted of members from the Economic Development Association of North Dakota, local economic development professionals, Job Service North Dakota, the North Dakota Department of Commerce and the North Dakota Workforce Development Council developed and approved a research instrument that was standardized for statewide use, to measure the availability of labor and underemployment. This instrument measured the adult population in and around Rolla, North Dakota. The telephone survey included Towner, Bottineau, Pierce, and Rolette Counties.

The study is able to report with 90 percent confidence, at a level of plus or minus 5 percent, the characteristics of the available labor for the area around Rolla.

To obtain a representative sample for the Cooperstown labor area, a random selection of respondents within households was used during the data collection process. The survey of adults (18 or older) performed by the SSRI was conducted by telephone. A random sample of 10-digit telephone numbers was generated by SSRI for the primary and secondary labor market areas utilizing Genesys Sampling Systems Random Digit Dialing (RDD) in-house software. The list from which the numbers were drawn included only actual North Dakota area codes and telephone bands (that is, blocks of 1,000 consecutive numbers within North Dakota) that had contained a threshold of active residential phone numbers.

Overall, SSRI called 4,632 numbers in the Rolla labor area to determine whether it was a working number in contrast to a nonworking number, a commercial/business line, a cell phone, data or fax line, or a nonprimary household telephone. SSRI staff classified 1,796 of these numbers as working residential numbers eligible for interview and successfully interviewed 1,029 of those households. Throughout the study completed interviews were monitored to determine whether the samples matched population estimates in terms of gender and the age distribution of North Dakota residents age 18 and older.

All interviews were conducted at the SSRI facilities by trained interviewers with supervision and random monitoring for technique and adherence to established procedures. Interviews were conducted afternoons and evenings on weekdays and weekends.

The most conservative approach of calculating a response rate for telephone surveys is the method adopted by the Council of American Survey Research Organizations

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(CASRO). The CASRO method uses the known status of portions of the sample that are contacted to impute characteristics of portions of the sample that were not reached. The CASRO method of calculating the response rates for primary labor market (Rolla labor area) yields a completion rate of 57.3 percent.