

Watford City 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 force.

In the area surrounding Watford City, there exists a potential labor force of 3,000 individuals, or approximately 27 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 54 percent of the adult population, or 6,130 individuals.

Characteristics of the Potential Job Seekers

	<u>Number*</u>	<u>Percentage</u>
Potential Job Seekers**	3,000	26.5
Actively Seeking Work	340	3.0
Planning to Look Within the Year	180	1.6
Interested in Changing Jobs	2,180	19.2
Interested in Additional Jobs	1,080	9.5
Those Discouraged From Looking	240	2.1

*Rounded to the nearest 10.

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

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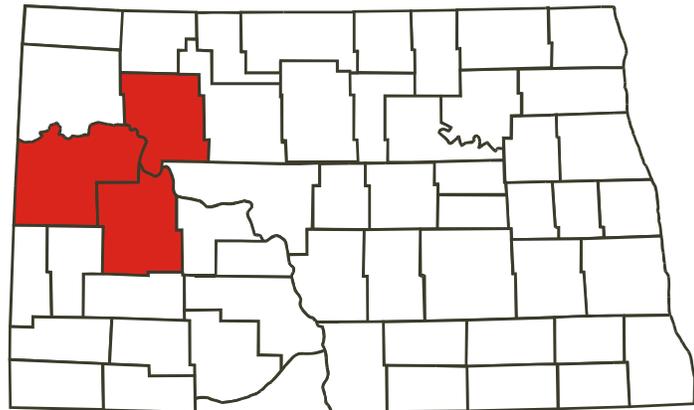
Introduction

Scope of the Study:

During the spring of 2002, the state of North Dakota sponsored a study to identify the available labor force 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 Watford City, located in the northwest 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, which contacted 770 respondents.

The survey included respondents from McKenzie, Dunn, and Mountrail Counties. These areas were included because of established commuting patterns in the area. The area highlighted in the adjacent map indicates the geographic area included in this report.



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 Mountrail County was around 5.5 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 be looking 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 labor pool for different businesses.

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

The discouraged worker is defined as someone who is not working, is not actively seeking work nor 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, McKenzie County has slightly more males (50.2 percent) than females (49.8 percent). The adult population 25 and older is well educated, with almost 79.1 percent having completed high school, which is slightly less than the national average (80.4 percent). Compared to the nation, the population of McKenzie County is less mobile, with 29.9 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 McKenzie County is 39.5 years of age.

According to the Watford City Economic Development Corporation, the labor market area for McKenzie County extends beyond its borders. Using the area identified, the Census reported 11,366 individuals 18 years or older who lived in the area.

Sample Population Characteristics:

The sample gathered for the McKenzie County labor area mirrors the general population characteristics. The portion of the sample that resides in McKenzie County reported slightly more female respondents than males, 51.6 to 48.4 percent. This is within the acceptable range of plus or minus 5 percent. In addition, the unemployment rate, defined as those who are actively seeking work reported by the study, was 3.0 percent, which is slightly less than the reported unemployment rate of 4.5 percent for the area. The median age for the respondents was 50.8 years of age.

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Employment Status:

According to the survey, about 51 percent of the adult population, or approximately 5,790 individuals, are currently working for wages in the Watford City labor market area.

Active Labor Force:

The active labor force includes those who are working, 5,790 individuals, and the 340 who are actively seeking work, or a labor force of 6,130.

Inactive Labor Force:

The inactive labor force includes those who are planning to look for work within the next year (180 individuals), as well as those who are discouraged from seeking work (240 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 5,790 employed in the area work an average of 42.0 hours a week. Those involved in farming and agricultural production were most likely to work longer hours than any other group. Those involved in the service occupations, (those who perform tasks in and around private households, or similar work in institutions or private businesses and those involved in protective services) worked the fewest average hours, 36.5 hours per week. This indicates a larger percentage of part-time workers in the service occupations. The following table reports the average hours worked by occupational group.

Occupation Group by Average Hours Worked	
<u>Occupational Group</u>	<u>Average Hours Worked</u>
Professional, Technical, and Managerial	41.2
Clerical and Sales	38.3
Service	36.5
Farming and Agricultural Production	59.8
Processing	43.3
Machine Trades	42.8
Benchwork	47.5
Structural Work	44.5
Miscellaneous	43.3

Age Distribution:

The median age for those who are working is 43 years. The youngest occupational group is comprised of those involved in machine trades work, with a median age of 34. Those involved in the machine trades generally use industrial machines to modify or produce objects. The oldest group, with a median age of 60, was those working in farming and agricultural occupations.

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Median Age of Occupations

<u>Occupational Group</u>	<u>Median Age</u>
Professional, Technical, and Managerial	45
Clerical and Sales	44
Service	37
Farming and Agricultural Production	60
Processing	40
Machine Trades	34
Benchwork	46
Structural Work	36
Miscellaneous	47

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, those individuals have a college degree. A lower level of formal training is found in three groups: service occupations, farming and agricultural production, and structural work. Individuals who are working in these occupations typically have a high school education.

Current Occupation:

The largest occupational group for the Watford City 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	1,950	33.7
Clerical and Sales	1,220	21.1
Service	860	14.9
Farming and Agricultural Production	470	8.1
Processing	200	3.5
Machine Trades	210	3.6
Benchwork	260	4.5
Structural Work	150	2.6
Miscellaneous	470	8.1
Total	5,790	100.1

* Rounded data

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Trained in Another Occupation:

Of those currently working, around 35 percent are working in an occupation different from the one in which they received training. About 47 percent of those who are working in clerical and sales were trained as professionals, technicians, and managers. In addition, 53 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, the farming and agricultural production workers have the longest tenure with their current employer, with a median of 15 years. Those involved in service occupations have been working for their employer for 3 years.

Current Wage:

Overall, the typical wage for this area is \$10.00 per hour. As an occupational group, the highest median (typical) wage is found among processing occupations (often found in manufacturing industries) with a wage of \$15.25 per hour. The lowest paid occupational group was involved with service occupations (\$7.75 per hour). The professional, technical, and managerial workers, as a group, had the most diversity of income.

Wages of Those Employed

<u>Occupational Group</u>	<u>Average/Mean</u>	<u>Typical/Median</u>
Professional, Technical, and Managerial	\$13.64	\$11.50
Clerical and Sales	10.00	9.00
Service	8.25	7.75
Farming and Agricultural Production	16.55	11.31
Processing	15.26	15.25
Machine Trades	12.93	12.75
Benchwork	11.85	10.00
Structural Work	13.85	11.80
Miscellaneous	<u>12.16</u>	<u>11.75</u>
Total	\$11.91	\$10.00

Job Service North Dakota conducts other surveys that collect information on wages. The Watford City labor market area would be considered part of the Far West portion of the state. When comparing wages, the wages reported in the labor availability survey are consistent with the wage information gathered from employers.

Current Commute Distance:

The occupational groups likely to commute the furthest distance are those people involved in the processing occupations with an average of 22 miles. The group that makes the shortest commute was made up of those who work in farming and agricultural production, with a commute of 5 miles. The furthest distance reported to travel to work was over 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 3,000 individuals available for work in the Watford City labor area.

Work Status:

The majority of the available labor force is currently employed. Of the available labor force, 83 percent, or 2,480 individuals, are currently working. The majority of the available labor force (78 percent) is interested in working at jobs on a year-round basis. About 750 people, or 65 percent, of those who are working part-time (defined as less than 30 hours) would like to work on a full-time basis.

Additional Employment:

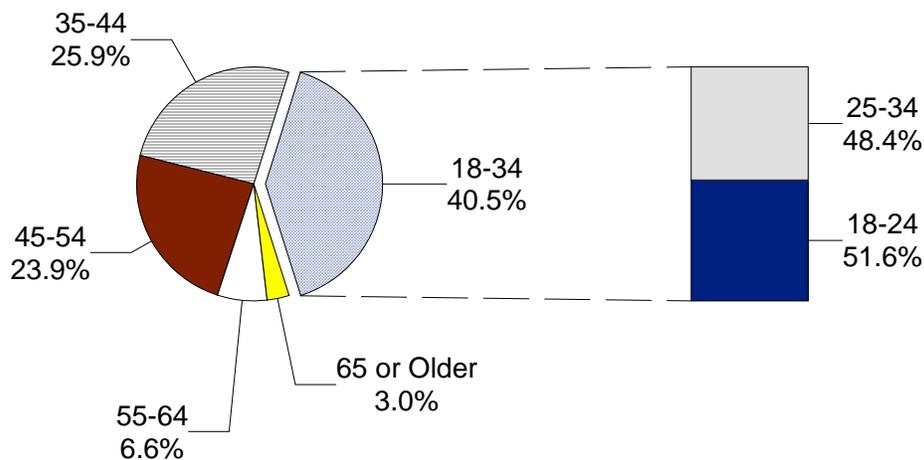
According to the survey, about 1,080 individuals are willing to take on an additional job. Some of these would also be willing to consider a different employer, depending on wages, benefits and working conditions.

Available for Work in the Next Year:

Approximately 180 individuals reported that they plan to seek work within the next 12 months.

Age Distribution:

Of the available labor force, over 40 percent, or 1,200 individuals, are under the age of 35.



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Educational Attainment:

Over 22 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	360	12.0
HS Diploma or GED	1,040	34.7
Some College/Vo-Tech	930	31.0
Vo-Tech Graduate	280	9.3
College Degree	360	12.0
Advanced Degree	30	1.0
Total	3,000	100.0

*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	650	26.2
Clerical and Sales	570	23.0
Service	510	20.6
Farming and Agricultural Production	40	1.6
Processing	100	4.0
Machine Trades	120	4.8
Benchwork	150	6.0
Structural Work	110	4.4
Miscellaneous	230	9.3
Total	2,480	99.9

*Rounded data

Occupations Trained In:

Almost 1,200 people were trained in an occupation other than the one they are, or have been, working in. Approximately 470 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	\$9.60
Clerical and Sales	8.63
Service	7.69
Farming and Agricultural Production	9.33
Processing	9.81
Machine Trades	11.00
Benchwork	9.20
Structural Work	11.71
Miscellaneous	9.54

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

Maximum Distance Willing to Commute:

Those involved in the processing occupations are willing to commute the furthest distance, with a median of 48 miles. The typical distance for the available labor force was around 30 miles.

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 over 61 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 45 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 most common training was how to be better organized.

The available labor force is willing to be trained, if needed, for a different job. 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 56 percent of the available labor force opting for that method. This may indicate that a number of people would need some form of income while developing the required skills.

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Type of Company Desired by the Available Labor Force:

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 machine trades. The following table reports the desirability of different types of companies.

<u>Industry</u>	<u>Percentage of Available Labor</u>
Information Computer Technology	79.7
Health Services	50.2
Engineering	44.8
Manufacturing	52.5
Business Services Operation	66.5
Machine Trades or Construction	41.9

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 65 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 the machine trades or 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	70.8	82.9	85.5	78.9	65.4
Health Services	58.3	54.3	53.2	36.8	38.5
Engineering	50.0	42.9	41.9	52.6	46.2
Manufacturing	58.3	54.3	56.5	52.6	32.0
Business Services Operation	79.2	65.7	66.1	68.4	61.5
Machine Trades or Construction	58.3	35.7	43.5	63.2	23.1

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 had four years of experience.

About half of the available labor force, 49 percent, reported having experience with office suite software.

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

<u>Technical Skill</u>	<u>Not Skilled</u>	<u>Some Skills</u>	<u>Average</u>	<u>Above Average</u>	<u>Very Skilled</u>	<u>No Answer</u>
Word Processing	2.0	8.8	12.3	14.2	11.3	51.4
Using Spreadsheets	4.9	9.8	17.6	8.8	7.4	51.5
Using Databases	4.4	7.8	19.6	9.3	7.4	51.5
Using Desktop Publishing	9.8	12.3	12.7	8.8	4.9	51.5
Computer Programming	6.4	5.4	3.4	0.4	1.0	83.8
HTML Programming	8.3	4.4	2.0	1.0	0.5	83.8
Installing Computer Hardware	2.0	2.9	2.9	4.9	3.4	83.9

Characteristics of the Discouraged Workforce

Characteristics of the Discouraged:

According to the survey, about 500 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 47, which is older than those who are currently working. The most common barrier for these people to seek work is their commitment to maintain the family farm. The lack of child care was not considered a barrier.

The discouraged workers, as a group, have higher levels of education when compared to other members of the available labor force. Approximately 25 percent of the discouraged have a college degree or higher. If training is required, 75 percent would like on-the-job training.

This group does have some experience as employees, with almost 38 percent having worked for an employer within the past six months, while another 38 percent of the discouraged workers have no experience working for an employer within the last two years.

The minimum acceptable wage for the discouraged is \$12.34 per hour. The discouraged workers were more likely to desire work that was year-round. The average distance the discouraged worker is 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 information technology or machine trades, which is similar to that of the rest of the available labor force. However, the health services industry was less desired by members of the discouraged work force.

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Percentage of Discouraged Workers Interested by Industry

<u>Industry</u>	<u>Percentage</u>
Information/Computer Technology	62.5
Health Services	18.8
Engineering	50.0
Manufacturing	43.8
Business Services Operation	50.0
Machine Trades or Construction	62.5

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 underemployment and the availability of labor. This instrument measured the adult population in and around Watford City. The telephone survey included McKenzie, Dunn, and Mountrail Counties.

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

To obtain a representative sample for the Watford City 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 3,525 numbers in the Watford City 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 1,212 of these numbers as working residential numbers eligible for interview and successfully interviewed 770 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 (Watford City labor area) yields a completion rate of 63.5 percent.