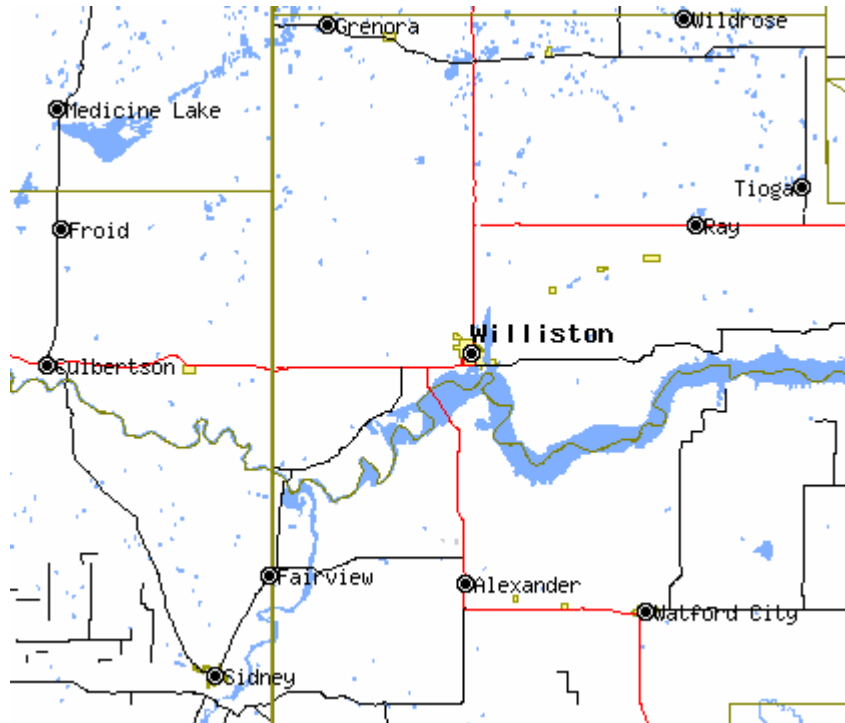


Labor Availability Study

The Community of Williston and the Surrounding Area



A collaboration of:

North Dakota Department of Commerce

University of North Dakota – Social Science Research Institute

Job Service North Dakota

Prepared by LMI Center of Job Service North Dakota

Maren L. Daley, Executive Director

Duane Broschat, Labor Market Information Manager

Compiled by Nelse Grundvig, Research Analyst

**Labor Availability Study
The Community of Williston and Surrounding Area**

**Labor Availability Study
The Community of Williston and Surrounding Area**

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, but while the unemployment rate is 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 2004, the state of North Dakota, in cooperation with local partners, funded a study to measure the available labor pool.

In the area including and surrounding the community of Williston, there exists a potential labor force of 8,020 individuals, or approximately 34 percent of the adult population.

The majority of these individuals are currently working, but would be willing to consider alternative jobs. The traditional measure of the labor force (those employed and unemployed) is estimated to be 51 percent of the adult population, or 11,930 individuals.

Characteristics of the Potential Job Seekers

	<u>Number*</u>	<u>Percentage</u>
Potential Job Seekers**	8,020	34.1
Actively Seeking Work	1,160	4.9
Planning to Look Within the Year	720	3.1
Interested in Changing Jobs	4,630	19.7
Interested in Additional Jobs	1,690	7.2
Those Discouraged From Looking	900	3.8

*Rounded to the nearest 10.

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

Labor Availability Study

The Community of Williston and Surrounding Area

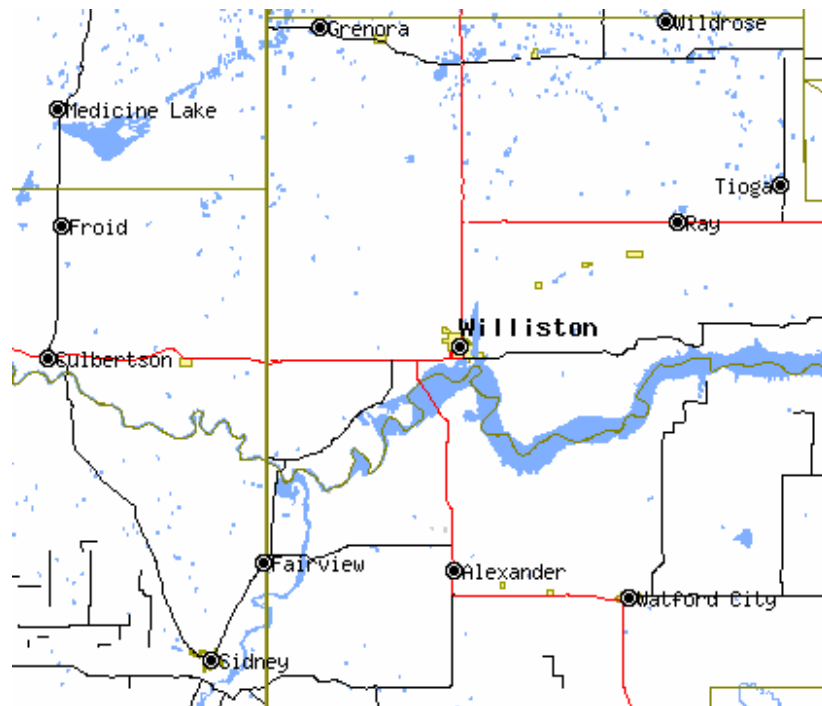
Introduction

Scope of the Study:

During the spring of 2004, 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, the Social Science Research Institute (SSRI) at the University of North Dakota, and the Williston Area Development Foundation.

The purpose of the survey was to explore the potential labor force in and around Williston, located in the northwestern 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 374 respondents.

The core area for this survey included respondents from Williams, McKenzie, Divide, and Mountrail Counties in North Dakota and Roosevelt, Richland and Yellowstone Counties in Montana. These areas were included because of established commuting patterns to and from Williams County. The adjacent map indicates the geographic area included in this report.



Potential Job Seekers

Definitions of Potential Job Seekers:

As of August 2004, (the most recent data currently available at the time of the survey) the unemployment rate for Williams County was 2.3 percent. The unemployment rate reported by Job Service North Dakota and used by the U.S. Department of Labor and the Census Bureau, consider those who are 16 years and older, not working, available for work and actively seeking work. This study differs in several aspects; it focuses only on adults 18 years and older and uses broader definitions of potential labor force. The potential labor pool includes not only those who are actively seeking work, but also those

Labor Availability Study

The Community of Williston and Surrounding Area

who are working and may be interested in working for another firm. In this survey, the identified potential job seekers were divided into five categories:

1. The unemployed

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

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 would be included in this category.

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 possible 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 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, Williams County had slightly more females (51 percent) than males (49 percent). The adult population 25 and older is highly trained, with 82.5 percent of the population having completed high school, which is higher than the national average (80.4). Compared to the nation, the population of Williams County is less mobile, with 39.0 percent of the population residing in a different residence than the one where they lived in 1995. Nationally, 43.0 percent of the population moved from their 1995 residence and lived elsewhere in 2000. The median age for the general population in Williams County is 39.8 years of age.

According to the Williams County Economic Development Corporation, the labor market area for Williams County extends beyond its borders. The U.S. Census reported 23,542 individuals 18 years or older who lived in the area identified.

Sample Population Characteristics:

The sample gathered for the area around Williston closely mirrors the general population characteristics. The sample reported more female respondents than males, 51.4 to 48.6 percent. This is within the acceptable range of plus or minus 5 percent. In addition, the unemployment rate, defined as those who are not working and actively seeking work

Labor Availability Study The Community of Williston and Surrounding Area

reported by the study, was 4.9 percent, which is higher than the reported unemployment rate for the area. The median age of the respondents was 51 years of age.

Employment Status:

According to the survey, about 45.7 percent of the adult population, or approximately 10,760 individuals, are currently working for wages in the Williston labor market area. Within the Williston labor market area there are approximately an additional 2,310 people who are self-employed.

Active Labor Force:

The active labor force includes 10,760 individuals working and 1,170 who are actively seeking work, for a labor force of 11,930.

Inactive Labor Force:

The inactive labor force includes those who are planning to look for work within the next year (720 individuals), as well as those who are discouraged from seeking work (900 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 10,760 employed in the Williston labor market area work an average of 41.4 hours a week. Those involved in farming and agricultural production were most likely to work longer hours than any other group (55.5 hours per week). Those involved in the service occupations (those who prepare or serve food, maintain buildings or grounds, provide personal care or protective services) worked the fewest average hours, 30.9 hours per week. This is an indication of the larger percentage of part-time jobs in those occupations. The following table reports the average hours worked by occupational group.

Average Hours Worked by Occupations	
<u>Occupational Group</u>	<u>Average Hours Worked</u>
Managerial, Professional and Related Occupations	41.2
Service Occupations	30.9
Sales and Office Occupations	35.6
Farming and Related Occupations	55.5
Construction, Extraction and Repair	48.3
Production, Transportation and Material Moving	49.2
Other Occupations Not Classified Elsewhere	37.5

Age Distribution:

The median age for those who are working is 45. As shown in the following table, the youngest occupational groups are comprised of those involved in farming and related occupations, with a median age of 36. The oldest group, with a median age of 52, is those who work in service occupations.

Labor Availability Study The Community of Williston and Surrounding Area

Median Age of Occupations

<u>Occupational Group</u>	<u>Median Age</u>
Managerial, Professional and Related Occupations	46
Service Occupations	52
Sales and Office Occupations	46
Farming and Related Occupations	36
Construction, Extraction and Repair	45
Production, Transportation and Material Moving	40
Other Occupations Not Classified Elsewhere	45

Educational Attainment:

The typical worker has at least some college, but this varies as some occupations have differing levels of required education and training. Those in the occupational group of managers, professionals, and related occupations generally have completed some post secondary training. Those involved in farming, construction, and production occupations typically have completed high school

Current Occupation:

The largest occupational group for the Williston labor market area consists of managerial, professional, and related 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>
Managerial, Professional and Related Occupations	5,010	46.6
Managerial	910	8.5
Business and Financial Operations	530	4.9
Architecture and Engineering	190	1.8
Life, Physical, and Social Science	60	0.6
Community and Social Services	260	2.4
Legal Occupation	450	4.2
Education, Training and Library	1,370	12.7
Healthcare Practitioner and Technicians	260	2.4
Healthcare Support	980	9.1
Service Occupations	1,240	11.5
Protective Service	130	1.2
Food Preparation and Serving	590	5.5
Building and Grounds, Cleaning, Maintenance	130	1.2
Personal Care	390	3.6
Sales and Office Occupations	1,690	15.7
Sales	450	4.2
Office and Administrative Support	1,240	11.5
Farming and Related Occupations	460	4.3
Construction, Extraction, Installation and Repair	1,170	10.9
Construction and Extraction	850	7.9
Installation and Repair	320	3.0
Production, Transportation and Material Moving	930	8.6
Production	460	4.3
Transportation and Material Moving	460	4.3
Other Occupations Not Classified Elsewhere	260	2.4

* Rounded data

**Labor Availability Study
The Community of Williston and Surrounding Area**

Trained in Another Occupation:

Of those currently working, 48 percent are working in an occupation different from the one in which they received training. About 54 percent of those who are working in clerical and sales were trained as professionals, technicians, and managers. In addition, 20 percent of the managerial, professional, and related occupations were working in occupations other than the one in which they were trained.

Longevity with Current Employer:

The one group who had the longest tenure with their current employer was those who work in farming and related occupations, with a median of 11 years. Those involved in production and transportation occupations have the shortest tenure with their current employer (2 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 production and transportation occupations with a wage of \$14.00 per hour. The lowest paid occupational group was involved with farming occupations (\$7.50 per hour).

Wages of Those Employed

<u>Occupational Group</u>	<u>Average/Mean</u>	<u>Typical/Median</u>
Managerial, Professional and Related Occupations	\$14.41	\$12.00
Service Occupations	8.49	7.85
Sales and Office Occupations	9.03	8.00
Farming and Related Occupations	10.94	7.50
Construction, Extraction and Repair	14.17	11.25
Production, Transportation and Material Moving	15.44	14.00
Other Occupations Not Classified Elsewhere	13.02	10.63

Job Service North Dakota conducts other surveys that collect information on wages. The Williston labor market area includes the Far West portion of the state. When comparing wages, those 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 were those people involved in the farming occupations, with an average commute of 27 miles. The group that makes the shortest commute was made up of those who work in service occupations or those occupations not classified elsewhere, with a commute of 6 miles. The furthest distance reported to travel to work was over 100 miles.

Labor Availability Study

The Community of Williston and Surrounding Area

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 8,020 individuals available for work in the Williston labor market area.

Work Status:

The majority of the available labor force is currently employed. Of the available labor force, 66 percent, or 5,300 individuals, are currently working. The majority of the available labor force (77 percent) is interested in working at jobs on a year-round basis. About 340 people, or 58 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:

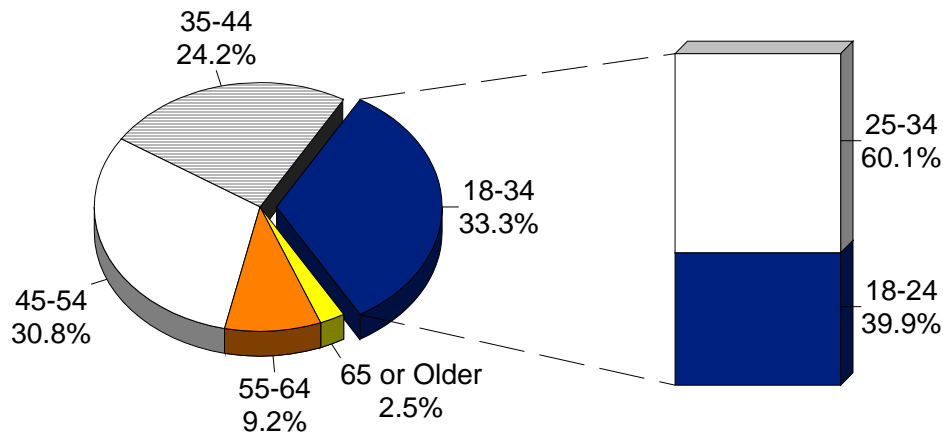
According to the survey, about 1,690 individuals are willing to take on an additional job. Some of those would also be willing to consider a different employer, depending on wages, benefits and working conditions.

Available for Work in the Next Year:

Approximately 720 individuals reported that they plan to seek work within the next 12 months.

Age Distribution:

Of the available labor force, approximately 2,670 individuals, or 33 percent, are under the age of 35.



**Labor Availability Study
The Community of Williston and Surrounding Area**

Educational Attainment:
Approximately 29 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	470	5.9
HS Diploma or GED	2,720	33.9
Some College/Vo-Tech	2,520	31.4
Vo-Tech Graduate	610	7.6
College Degree	1,360	17.0
Advanced Degree	340	4.2
Total	8,020	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>
Managerial, Professional and Related Occupations	2,070	39.0
Service Occupations	410	7.8
Sales and Office Occupations	1,240	23.4
Farming and Related Occupations	280	5.2
Construction, Extraction and Repair	760	14.3
Production, Transportation and Material Moving	410	7.8
Other Occupations Not Classified Elsewhere	130	2.5
Total	5,300	100.0

* Rounded data

Occupations Trained In:
Approximately 2,850 people were trained in an occupation other than the one in which they are or have been working.

Additional Occupations in Which the Available Labor Force Have Trained

<u>Occupational Group</u>	<u>Number*</u>	<u>Percentage*</u>
Managerial, Professional and Related Occupations	1,400	49.2
Service Occupations	470	16.4
Sales and Office Occupations	190	6.6
Farming and Related Occupations	50	1.6
Construction, Extraction and Repair	510	18.0
Production, Transportation and Material Moving	230	8.2
Other Occupations Not Classified Elsewhere	0	0
Total	2,850	100.0

* Rounded data

**Labor Availability Study
The Community of Williston and Surrounding Area**

Minimum Acceptable Wage:

Lowest Acceptable Hourly Wage of Those Currently Working

<u>Occupation</u>	<u>Minimum Acceptable Average Wage</u>
Managerial, Professional and Related Occupations	\$11.48
Service Occupations	7.80
Sales and Office Occupations	8.01
Farming and Related Occupations	11.31
Construction, Extraction and Repair	9.63
Production, Transportation and Material Moving	11.96
Other Occupations Not Classified Elsewhere	8.75

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

Maximum Distance Willing to Commute:

Those in farming occupations or occupations not elsewhere classified, are willing to travel the furthest for a job, with a median distance of 50 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. This pattern was consistent for all occupational groups. Other benefits desired include retirement, paid vacation, and sick leave.

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 53 percent citing that factor. The other two most important factors that would influence a person's decision include benefits (15 percent) and career advancement (14 percent).

Work Schedule Preference:

The majority of the available labor force would like some ability to have a flexible schedule at work. The majority 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 trained, with 39 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 almost 63 percent of the available labor force opting for that method.

**Labor Availability Study
The Community of Williston and Surrounding Area**

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 information and computer technology. The least desired firms are those involved in construction. 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	64.5
Health Services	45.5
Engineering	35.5
Manufacturing	38.7
Business Services Operation	50.0
Machine Trades or Construction	33.9

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 62 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 construction (18 percent).

Interest for Specific Industries by Educational Attainment of Available Labor Force (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	85.7	60.0	67.6	88.9	56.0
Health Services	28.6	35.0	56.8	77.8	40.0
Engineering	57.1	40.0	40.5	22.2	29.2
Manufacturing	28.6	42.5	37.8	44.4	36.0
Business Services Operation	42.9	50.0	59.5	66.7	36.0
Machine Trades or Construction	57.1	30.0	40.5	33.3	28.0

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 over eight years of experience.

About half of the available labor force (48 percent) reported having experience with office suite software.

**Labor Availability Study
The Community of Williston and Surrounding Area**

**Self-Reported Proficiency of Various Computer/IT Skills (Percentage)
of Potential Job Seekers**

<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	1.6	5.6	11.3	14.5	13.7	53.3
Using Spreadsheets	6.5	10.5	16.1	8.9	4.9	53.1
Using Databases	4.8	9.7	16.9	11.3	3.2	54.1
Using Desktop Publishing	6.5	8.9	15.3	8.1	7.3	53.9
Computer Programming	5.6	3.2	1.6	0.8	0.8	88.0
HTML Programming	5.6	1.6	1.6	1.6	1.6	88.0
Installing Computer Hardware	2.4	2.4	3.2	1.6	2.4	88.0

Characteristics of the Discouraged Workforce

Characteristics of the Discouraged:

According to the survey, about 900 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 48, which is older than those who are currently working (46). The most common barrier for these people to seek work is working on a family farm and/or being self-employed.

The discouraged workers, as a group, have similar 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, 67 percent would like on-the-job training.

This group does not have a great deal of experience as employees, with 75 percent having not worked for an employer within the past two years.

The average minimum acceptable wage for the discouraged is \$16.05 per hour. The discouraged workers were more likely to want to work year-round. The average distance the discouraged worker is willing to travel to work is 37 miles.

Benefits Desired:

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

The industry that appealed to the discouraged workers was information/computer technology, which is similar to that of the rest of the available labor force. However, the least desirable industries were health services and construction.

Labor Availability Study The Community of Williston and Surrounding Area

Percentage of Discouraged Workers Interested by Industry

<u>Industry</u>	<u>Percentage</u>
Information/Computer Technology	58.3
Health Services	25.0
Engineering	41.7
Manufacturing	33.3
Business Services Operation	50.0
Machine Trades or Construction	25.0

How the Study Was Done

Target Population:

The target population was defined as adults 18 years of age or older, who had a working residential telephone number, and resided in the Williston labor market area. The adult with the most recent birthday in the household was asked to complete the survey.

Target Labor Market County Area Sample Sizes:

The sample was drawn at the county level and provides an accuracy at plus or minus five percent with a 90 percent confidence level. The samples are distributed in proportion to the total adult population age 18 or older.

Field Period:

The survey data were collected October 10, 2004, through October 20, 2004.

Sample Design:

Information about how survey samples are developed is important in assessing the validity and reliability of the results of the survey. While a fully random design is the most desirable approach in developing a representative sample of the population, this approach often results in under-sampling demographic groups with low rates of telephone ownership. These groups most often include young adults, minorities, and individuals with low education and income. Increasingly, researchers use stratified random designs to guard against under-sampling. To determine whether a representative sample was obtained, it is helpful to calculate the response rate for the sample as a whole, as well as to examine how closely the sample matches the known demographic characteristics of the population. If substantial differences are detected, post-stratification weights can be applied during analysis to ensure that the results of the survey can be generalized to the larger population.

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

Labor Availability Study The Community of Williston and Surrounding Area

Overall, SSRI called 6,937 numbers in the selected labor market area to determine whether each was a working residential number in contrast to a nonworking number, a commercial/business line, a cell phone, data or fax line, or a non-primary household telephone. SSRI staff classified 691 of these numbers as working residential numbers eligible for interview and successfully interviewed 368 of these households. Throughout the study, completed interviews were monitored to determine whether the county samples matched population estimates in terms of gender and the age distribution of North Dakotans aged 18 or older.

Response Rates:

Survey professionals in general have found that response rates for telephone surveys have declined in recent years. These declines are related to the proliferation of fax machines, answering machines, blocking devices and other telecommunications technology that make it more difficult to identify and recruit eligible individuals. These declines are also related to the amount of political polling and market research that is now done by telephone and to the higher likelihood that eligible households will refuse to participate in any surveys. The consequence has been that response rates for telephone surveys are now calculated in several different ways, although all of these approaches involve dividing the number of respondents by the number of contacts believed to be eligible. Differences in response rates result from different ways of calculating the denominator, i.e. the number of individuals eligible to respond. The most conservative approach is one adopted by the Council of American Survey Research Organizations (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 the overall project yields an average completion rate of 64.1 percent. The following table shows the dispositions as well as the CASRO response rates by county for the drawn sample.

Response Rate for the Williston Labor Market Area

<u>County</u>	<u>C</u>	<u>NW</u>	<u>NP</u>	<u>B</u>	<u>R</u>	<u>T</u>	<u>HCNI</u>	<u>CASRO</u>
North Dakota	280	2,481	78	10	62	12	83	64.1%
Montana Area	88	3,765	27	2	19	2	28	64.2%
Total	368	6,246	105	12	81	14	111	64.1%

C	Completed Interviews	R	Refused
NW	Non-working telephone	T	Terminated Interview
NP	Non-Primary Household	HCNI	Household Contacted Not Interviewed
B	Language Barrier		