

# Memorandum

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 DATE: September 11, 2017  
 SUBJECT: Detailed Work Status for Yellowstone County

As a part of your information gathering for the study bill on unemployment in high-poverty counties (SJR 20), you asked for data on marginally attached, discouraged, and involuntary part-time workers by county in Montana. Unfortunately, such information does not exist because it would be very expensive to collect such detailed information by county. Discouraged workers comprise less than 2% of the population, necessitating a very high sampling rate of nearly 100% sampling rate to get an accurate tally. Such an extensive survey would be very expensive to complete.

Yellowstone County is the only Montana county with sufficient survey coverage to provide information on discouraged or part-time workers. The detailed labor force status of the Yellowstone County population 16 and over is provided below using monthly Current Population Survey (CPS) surveys completed from August 2014 to July 2017. Three years of data was used to increase the stability of the estimates.

<b>Table 1: Labor Force Status in Yellowstone County</b>		
	<b>Number of People</b>	<b>Percent of Population</b>
<b>Total Population 16 and over</b>	<b>122,400</b>	<b>100%</b>
<b>Employed</b>	<b>78,200</b>	<b>63.9%</b>
Employed Part-Time	14,600	11.9%
Employed Part-Time Desiring Full-Time	2,400	2.0%
<b>Unemployed</b>	<b>2,700</b>	<b>2.2%</b>
On Layoff - Returning to a Job	900	0.7%
Only available part-time	600	0.5%
<b>Not in Labor Force</b>		
Discouraged	190	0.2%
Discouraged and in School	30	0.0%
Discouraged and Retired	10	0.0%
Not in Labor Force Not Discouraged	41,318	33.8%
Retired	24,900	20.3%
In School	5,100	4.2%
Disabled or Ill	5,300	4.3%
Taking Care of House or Family	5,000	4.1%
Source: Current Population Data Aug. 2014 to July 2017 through DataFerret, U.S. Census Bureau and Bureau of Labor Statistics		

Table 1 illustrates the labor force status of the Yellowstone population 16 years and over. Roughly 64% of the population is employed, which is higher than the state as a whole. Labor force participation, calculated as those

who are either employed or actively seeking work divided by the total population, is 66%, and not statistically different than the state as a whole. However, keep in mind that the Yellowstone County estimates have a fairly large error range, so a different time frame or slightly different sampling might change the estimates.<sup>1</sup> Both the labor force participation rate and the employment to population ratios are used to measure economic engagement of a population. However, both metrics are highly sensitive to changes in the average age of the population. As Montana’s baby boomer population retires, our employment to population ratio and our labor force participation rate will decline because of demographics, not because of economic changes.

Because the employment to population ratio and the labor force participation rate are sensitive to demographic changes, there is a need for a metric that focuses only on economic changes to labor markets – the unemployment rate. By focusing only on workers who are employed or actively seeking work, the unemployment rate how easy it is to find work if you are looking for work. The average unemployment rate in Yellowstone County during this period was 3.3% using the typical, universally defined unemployment rate (called the U3). Table 2 illustrates common labor force metrics.

<b>Table 2: Commonly Used Labor Force Metrics for Yellowstone County</b>	
Labor Force Participation Rate	66.1%
Employment to Population Ratio	63.9%
U-3 Unemployment Rate (usual one)	3.3%
U-4 Unemployment Rate (includes discouraged)	3.6%
Unemployment Rate (includes discouraged and part-time wanting to be full-time)	6.5%

As you know, the Bureau of Labor Statistics also defines and publishes six unemployment rates on a national basis. The U-3 unemployment rate is the standard way to measure unemployment, and has been in use over time and internationally.

The U-4 rate also includes discouraged workers, who are individuals not currently in the labor force, who want and are available work, and who have looked for work in the last year. There were about 190 discouraged workers in Yellowstone County over the past three years. The assumption is that discouraged workers have given up looking because they were unable to find a suitable job, but there are many other reasons why a worker may have given up looking for work, including a lack of suitable transportation or daycare options. In Yellowstone County, the U-4 rate was 3.6%. The U-4 rate is typically very close to the U-3 rate, and increases or decreases with very high correlation to the U-3 rate.

Nationally, the BLS also produces a U-6 rate that includes part-time workers who are part-time due to economic reasons, plus discouraged and marginally-attached workers. The U-6 rate typically follows similar trends to the other published unemployment rates, but tends to be more volatile to economic conditions. The U-6 typically starts to increase before recessions earlier than other unemployment rates, and takes a longer time to come back down to normal levels after recessions than the other unemployment rates. The closest estimate to the U-6

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<sup>1</sup> The CPS data allows for the calculation of standard errors, but it takes significant work hours to download the microdata in the individual monthly files needed for the calculation. This process was skipped in interest of fiscal responsibility.

rate for Yellowstone County with the information available is to include part-time workers who want full-time work. Part-time for economic reasons is a sub-set of those who want full-time work, but the concept of including workers whose work hours are not fully utilized is the same for both the U-6 and the creatively compiled rate including those wanting to be full-time. Roughly 12% of the population and 19% of employed workers are part-time, but only 16% of part-time workers in Yellowstone County desire full-time work. If we included the discouraged workers and part-time workers who desire full-time work as unemployed, the unemployment rate in Yellowstone County would have been 6.5% over the last three years.

Those who are discouraged, out of the labor force, or working part-time are often in that labor force status due to reasons other than economic opportunities. Table 1 also gives some information about what people out of the labor force are doing with their time. For example, roughly 20% of people are retired, and about 4% of people are in school. An additional 4% indicate that they are caretakers or homemakers, such as stay-at-home parents or those caring for aging or disabled family members. All of these percentages are similar to the data at the state level, and therefore seem fairly statistically stable.

The CPS also asks questions about why individuals only work part-time, which is shown in Table 3 below. Survey responders can select more than one reason, and the number indicating that reason is summed over all of the 36 months of data included (rather than indicating the average responding). Therefore, the number indicating exceeds the average of discouraged workers shown in Table 1.

<b>Table 3: Reasons Given by Discouraged Workers in Yellowstone County of Why They are Not Looking For Work</b>	
	<b>Number Indicating</b>
Family Responsibilities	463
Couldn't Find Any Work	279
Ill-Health or Physical Disability	219
In School Or Other Training	174
Employers Think Too Young Or Too Old	72
Believes No Suitable Work Available	63
Lacks Necessary Schooling or Training	23
Other Types Of Discrimination	13
Transportation Problems	11
Source: Current Population Survey, Aug. 2014 to July 2017.	

Likewise, there are many reasons for individuals to only work part-time. Table 4 indicates the reasons given for part-time work status in Yellowstone County over the three-year timeline. The most common reason given is for "other family and personal obligations," which does not include child care problems, but could include other types of family caregiving, such as caring for a sick or disabled adult. Part-time work while taking classes is fairly common, as is working to supplement retirement income. The economic reasons listed include slack business conditions, could only find part-time work, and only seasonal work available. These responses are only provided as options for those who indicate that they want full-time work. Among those wanting full-time work, slack business conditions are the most commonly given reason.

**Table 4: Reasons Given for Part-Time Work Status in Yellowstone County**

	<b>Total</b>	<b>Wants Full-Time</b>	<b>Does NOT Want Full-time</b>
Other Family/Personal Obligations	4,250	180	4,070
School or Training	2,540	130	2,410
Retired	1,570	-	1,570
Slack Work/Business Conditions	1,080	1,080	-
Health or Medical Limitations	830	70	760
Full-time Work Week is Full-Time	820	120	700
Child Care Problems	510	50	460
Could only Find Part-Time Work	510	510	-
Seasonal Work	90	90	-

Source: Current Population Survey, Aug. 2014 to July 2017.