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The Illinois Institute for Rural Affairs (IIRA) works to improve the quality of life for rural residents by partnering with public and private agencies on local development and enhancement efforts.



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Unused Human Resources in Rural Illinois: A Profile of “Not in the Labor Force” Population, January – October 2021

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Abstract

This paper uses the concept of ‘labor reserve’ to highlight the potential supply of labor in rural Illinois. Labor reserve encompasses those nonparticipants who are most likely to join the labor force under more favorable social conditions. For rural Illinois, this number is around 26,281 persons, majority of them female.

Introduction

The Covid-19 pandemic rendered one-in-five Illinoisans jobless². Now that the Covid-19 pandemic is endemic³, the unemployment rate has improved; at the start of 2021, rural Illinois had an unemployment rate of 9.3%⁴. In the following months, unemployment declined at the rate of 0.07 points per month and stood at 5% as at October, 2021. Metro Illinois posted better numbers, started the year at 8% unemployment, it declined at the rate of 0.05 units per month and stood at 4.9% as at October 2021 (Figure 1).

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² <https://www.chicagotribune.com/coronavirus/ct-coronavirus-illinois-april-unemployment-rate-20200521-gfg675giqbcqtaahirsmyaaga-story.html>

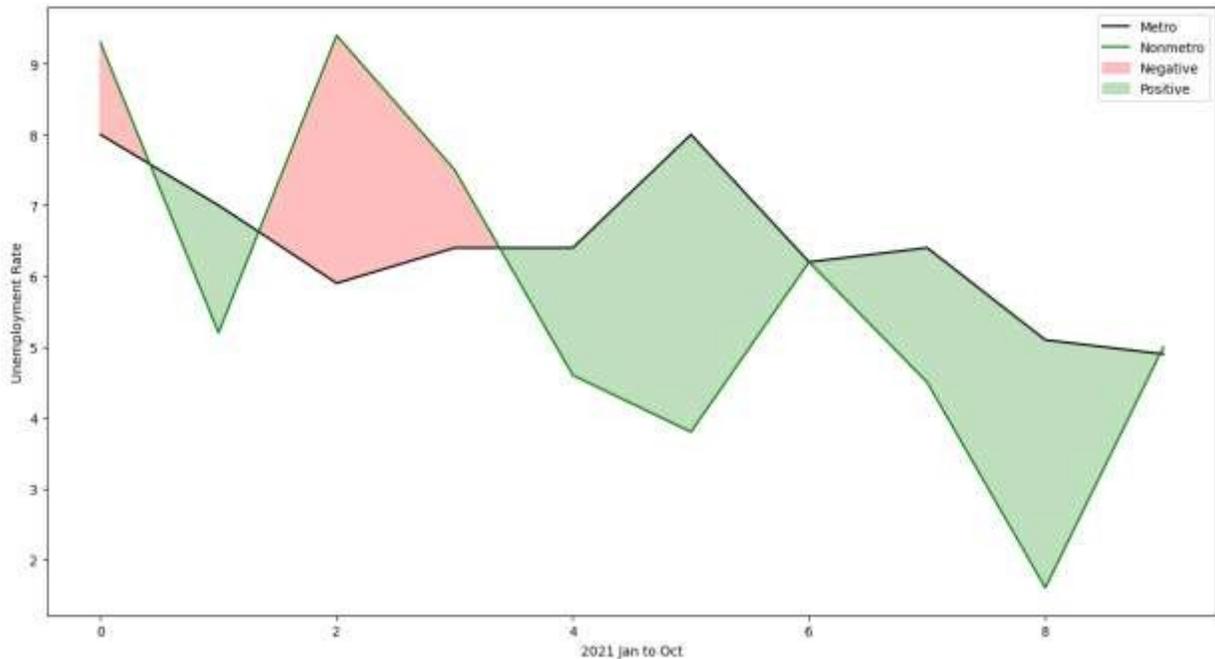
³ The term ‘endemic’ suggests that the virus will not end, but vaccination will help reduce transmission and hospitalization and death. See <https://www.hsph.harvard.edu/news/features/what-will-it-be-like-when-covid-19-becomes-endemic/>

⁴ Data are from the Current Population Survey (CPS).

While the number of employed and the unemployed is often used as an indicator of the supply of labor, a more accurate definition of labor supply would include persons who are only marginally attached to the labor force. This paper explores the characteristics of rural

Illinoisans who were not in the labor force as at October 2021⁵: that is, those persons not working at all during the CPS survey reference week and who had not looked for work during the prior four-week period⁶.

Figure 1: Unemployment in Illinois: Metro and Nonmetro Differences, Jan. – Oct, 2021



Note: Shaded regions denote positive or negative unemployment situation in the nonmetro; specifically, if the unemployment rate in the nonmetro is LTE to the metro, it is “positive”, shaded “blue”; negative unemployment rate (that is, nonmetro GT metro) is shaded “red”.

Theoretical Concepts

The *productive potential* of the economy is a function of the utilization rates of

factors of production, including labor. Thus, a given level of employment can be associated with different rates of labor utilization. Total labor supply is

⁵ Technically, these persons are not counted as unemployed. See the variable, PEMLR, in CPS data dictionary used to calculate unemployment.

⁶ For more about CPS survey methodology, see Athiyaman, A. (2021). Covid-19 Pandemic:

Effects on Minority Owned Businesses. *Research Brief*, 3(6), April, 1-10. Available online: http://www.iira.org/wp-content/uploads/2021/04/ResBrief6_Minority_Apr2021.pdf.

the sum of both *unemployed* (people who are out of a job and looking for work) and nonparticipants in the labor market activity.

The “*not in the labor force*” concept relates to persons who are “marginally attached” to the labor force. It includes the requirements for job desire and reasons for not seeking work (for example, family responsibilities and transportation problems). The “not in the labor force” concept is what is highlighted in the paper; persons making up this group is the focus of this research. Specifically, we analyze the

demographic characteristics of rural Illinoisans looking for a job, but were out of the labor force during October, 2021.

Methodology

CPS microdata, for the period Jan-Oct, 2021, were used to construct profiles of rural Illinoisans not in the labor force⁷. Descriptive statistics computed include central tendencies and measures of dispersion, range and semi-interquartile range. Table 1 shows the variables used in the data analysis.

⁷ <https://www.census.gov/data/datasets/time-series/demo/cps/cps-basic.html>

Table 1: Variables and Operational Definitions

Variable	Operational Definition
PEMLR	MONTHLY LABOR FORCE: 1 employed-at work 2 employed-absent 3 unemployed - on layoff 4 unemployed- looking 5 not in labor force- retired 6 not in labor force- disabled 7 not in labor force- other.
PEDWRSN	REASON NOT LOOKING FOR WORK DURING THE LAST 4 WEEKS: 6: can't arrange child care 7: family responsibilities 8: in school or other training 9: ill-health, physical disability 10: transportation problems 11: other – specify
GESTFIPS	FEDERAL INFORMATION PROCESSING STANDARDS STATE CODE: 17 Illinois
GTCBSASZ PRTAGE	Metropolitan / Nonmetro Areas: 0: NONMETROPOLITAN; 2-7: METRO PERSONS AGE: 00-79: Age in Years; 80: 80-84 Years Old; 85: 85+ Years Old
PESEX	GENDER: 1: Male; 2: Female
PEEDUCA	HIGHEST LEVEL OF SCHOOL COMPLETED OR DEGREE RECEIVED 31: less than 1st grade; 32: 1st, 2nd, 3rd or 4th grade; 33: 5th or 6th grade; 34: 7th or 8th grade; 35: 9th grade; 36: 10th grade; 37: 11th grade; 38: 12th grade no diploma 39: high school grad-diploma or GED; 40: some college but no degree; 41: associate degree-occupational/vocational; 42: associate degree-academic program; 43: bachelor's degree; 44: master's degree; 45: professional school deg; 46: doctorate degree.

Findings

The “not in the labor force” population in rural Illinois could be partitioned into two segments: a college educated segment and a cluster of persons with no college education. The median age of the segment was 41, for the college educated and 37 for the “less than college” cluster.

Looking at the college educated, females were out of the workforce in January 2021 because of childcare

responsibilities. In contrast, males were out of the labor market because of participation in educational or training programs. Ten months later, in October 2021, only college educated females were wanting to be part of the labor market (Table 2).

The “non-college” cluster has different reasons for not looking for a job; for females, it is ill-health or transportation problems. Males state that it is their educational pursuits that prevented them from looking for jobs.

The number of non-college educated persons wanting to enter the workforce in October 2021 is six times greater than

the number of college-educated seeking a job (Table 2).

Table 2: Persons Not in the Workforce in Rural Illinois

Less Than or Equal to 65 Years of Age with a College Education

	Status in Jan 2021		Status in Oct 2021	
	Female	Male	Female	Male
Wanted a job	3,808	4,072	3,445	-
Reason for not looking for work during the last 4 weeks:				
- Can't arrange childcare	3,808			
- In-school or other training		4,072	3,445	
- Other				

Less Than or Equal to 65 Years of Age with Less Than a College Education

	Status in Jan 2021		Status in Oct 2021	
	Female	Male	Female	Male
Wanted a job	4,100	3,443	16,516 (100%)	5,235
Reason for not looking for work during the last 4 weeks:				
- Can't arrange childcare				
- In-school or other training		3,443	3,853 (23%)	
- Transportation problem	4,100			
- Ill-health			4,584 (28%)	
- Other, including no response			8,079 (49%)	5,235

Summary and Conclusion

This paper explores the characteristics of persons outside the labor force. Nonmetro Illinois is the geographical unit of analysis. Empirical analysis reveals that while the market for educated labor force is tight, the market for non-college educated labor force is slack (Table 2).

The salient reasons for not conducting a job search include childcare problems, family responsibilities, and going to school or training. Only females mention transportation problem as a hurdle for seeking a job.

In labor economics, the concept of 'labor reserve' is often used to highlight the potential supply of labor⁸. It encompasses those nonparticipants who are most likely to join the labor force under more favorable social conditions. For rural Illinois, this number is around 26,281 persons, majority females (73%).

In consumer research, a person's intention to engage in a behavior is the best predictor of the person's actual behavior⁹. Rural Illinois' labor reserve intends to work. It is hoped that businesses make use of data from this study to target their recruitment efforts.

⁸ Gellner, C. G. (1975). Enlarging the concept of a labor reserve. *Monthly Labor Review*, April, 20-28.

⁹ Athiyaman, A. (2015). Identifying High Potential Biomass-Home-Heating Customers: A

Bayesian Classification, *Journal of Applied Quantitative Methods*, 10(2), 76-82.