

The Impact of Welfare Work Registration  
Rules on Labor Market Data

Thomas M. Supel

October 1977

Staff Report #: 32

The views expressed herein are solely those of the author and do not necessarily represent the views of the Federal Reserve Bank of Minneapolis or the Federal Reserve System.

The author is a Senior Economist at the Federal Reserve Bank of Minneapolis.

I would like to thank Art Rolnick and Kathy Rolfe for many helpful suggestions.

## 1. Introduction

This paper examines how the Bureau of Labor Statistics (BLS) labor force data was affected by legislation requiring certain welfare recipients to register for work. Contrary to one recent study, we argue that the effect is, at most, small. The historical consistency of the BLS data is preserved by the new legislation.

In 1971 Congress amended the Work Incentive Program (WIN) so that effective in fiscal year 1973 all nonexempt AFDC recipients were subject to mandatory registration for employment or training with the local manpower agency. There were over 900 thousand mandatory registrants in fiscal year 1973.<sup>1/</sup>

Congress also amended the Food Stamp Act in 1971. This amendment required all nonexempt members of a recipient household to register for employment. There were approximately one million registrants in this program in 1973.<sup>2/</sup>

In a recent study, Clarkson and Meiners (CM) have argued that the impact of this legislation on the BLS labor force data was quite large. "Prior to the introduction of work registration requirements in the early 1970s, as a condition for receiving food stamps or other welfare benefits, these individuals would not have entered into the measured unemployment statistics."<sup>3/</sup> CM produced "corrected" unemployment rates by subtracting the mandatory registrants from both the official labor force and unemployment data. Their "corrected" rates for the years 1974, 1975, and 1976 were 3.8, 6.1, and 5.3 percent, while the

---

<sup>1/</sup>Cf. [1], p. 8.

<sup>2/</sup>Ibid, p. 10.

<sup>3/</sup>Ibid, p. 19.

officially reported rates were 5.6, 8.5, and 7.7 percent, respectively. Since their "corrected" unemployment rates seem consistent with past unemployment rates when the employment rate was about the same as in the years 1974-1976, CM concluded that the legislation requiring welfare recipients to register for work caused "a permanent increase in the number of individuals included in the unemployment statistics that represent a new class of individuals who are not seeking work."<sup>4/</sup>

The CM results have been used editorially to support the argument that there has been a loss of historical consistency in the official unemployment rate data.<sup>5/</sup>

Our argument that historical consistency of the labor force data was not significantly affected by the new legislation is based primarily on two points. First of all, we argue from the qualitative point of view that because of the procedures followed in collecting the household survey data, together with certain characteristics of welfare recipients, there is reason to believe that the mandatory registrants were counted in the labor force prior to the new work rule. This point is discussed in Section 2.

In Section 3, we argue from the quantitative point of view that when the trend in the labor force is properly accounted for, the effect of the new legislation is not statistically significant. That is, the post-1972 labor force experience was about what would be expected on the basis of the pre-1972 labor force experience.

---

<sup>4/</sup> Ibid, p. 19.

<sup>5/</sup> Cf. [2] and [3].

The final section summarizes the results of this investigation and comments on its implications for the interpretation of the household survey data.

2. Were the Mandatory Registrants in the Labor Force Prior to the Rule Change?

In this section we argue that many mandatory registrants have always been counted in the labor force in the BLS household survey. Discussions with persons responsible for conducting the household survey, including our local interviewer, indicate that welfare recipients are not singled out for special treatment with respect to the labor force count either before or after the implementation of the new welfare amendments. All those interviewed answer all questions regardless of welfare status.

After the new legislation, mandatory registrants were still free to respond to the household survey questionnaire the same as anyone else, but there is a larger class of WIN participants.<sup>6/</sup> The issue, however, is how did mandatory registrants respond to the household survey prior to the new work registration rules. If they were employed or looking for work, then simply adding a new label would not alter the historical consistency of the labor force count. Here we must rely on inference since BLS does not tabulate labor force data specifically for

---

<sup>6/</sup>WIN participants are classified as employed or unemployed according to certain BLS criteria. For example, a person enrolled in an institutional training program would be counted as unemployed. However, if this person also worked at least one hour for pay during the survey week, he would be counted as employed since this response takes precedence over the WIN response when the questionnaires are tabulated. This procedure for WIN participants was in effect prior to the work rule change.

welfare recipients. Some inferences may be drawn from observations about the exemption rules and certain work characteristics of welfare recipients.

AFDC recipients are exempt from mandatory registration for reasons such as age, medical disability, or being a caretaker of a child under the age of 6. Food stamp recipients are exempt for similar reasons including persons employed at least 30 hours per week.<sup>7/</sup> Therefore the exclusion rules produce a sample of mandatory registrants that is quite different than a randomly drawn sample of the entire population. Except for the loss of benefits that this group faces in accepting a job, they are precisely the group that is most likely to be counted in the labor force in the household survey.

Food stamp recipients must register for work unless they work at least 30 hours per week. But the household survey includes a person as being employed even if they work only one hour during the survey week; thus, all food stamp mandatory registrants working less than 30 hours per week, but at least one hour, would be counted as employed in the household survey both before and after the new legislation.

The receipt of welfare does not necessarily detach a person from the labor force. In 1973, about 23 percent of the AFDC registrants were volunteers.<sup>8/</sup> That is, they registered for work even though they were exempt from mandatory registration according to the rules. Also, according to one study,<sup>9/</sup> about 15 percent of AFDC recipients throughout

---

<sup>7/</sup>See [1] for a complete discussion of exemption rules.

<sup>8/</sup>Cf. [1], p. 9.

<sup>9/</sup>Cf. [7].

the nation were employed in 1969. These welfare recipients were presumably counted as employed in the household survey.

The work behavior of welfare recipients described by Rainwater is further evidence that many welfare recipients would probably be counted in the household survey even in the absence of the new legislation. Rainwater's longitudinal study for welfare recipients for the years 1968-1975 indicates an active participation in the labor market.<sup>10/</sup> For example, he finds that many welfare mothers also work. Also, exrecipients work when not on welfare thus indicating some sort of job search while on the welfare roles. It seems reasonable to infer that there is a great likelihood that these job searchers would respond as "looking for work" and thus be counted in the labor force in the household survey. In this sense, welfare payments act very much like unemployment insurance benefits.

Our summation of the above qualitative evidence is that there is a prima facie case for arguing that the labor force as measured by the household survey was largely unaffected by the legislation of the early 1970s. These qualitative observations, however, do not prove anything; they simply add credibility to the hypothesis that mandatory registrants have always been counted in the household survey. The simple alternative hypothesis, such as adopted by CM, is that none of the mandatory registrants were counted in the labor force prior to the new rules. We will now examine the labor force data for empirical evidence about the impact of the welfare work registration rule and which of these two simple hypotheses is more consistent with the data.

---

<sup>10/</sup>Cf. [4].

### 3. The Labor Force Data

The essence of the household survey for our purposes is the response to the question: Are you employed or have you actively searched for work during the past four weeks? If the new legislation has caused a significant number of welfare recipients to respond "yes" when they would have previously responded "no," then there should be a shift in the labor force data beginning about 1973. Moreover, the size of the shift should be about equal to the number of mandatory registrants. We shall examine this hypothesis for only the total labor force and the female labor force because of limited data.

In order to test for this shift, we adopt an autoregressive model of the labor force data. The observed labor force statistical process is affected by a variety of social and economic stimuli.<sup>11/</sup> In the absence of a complete structural model, an autoregression can be viewed as a statement of the effects of "time" on the labor force process. This statistical representation provides a vehicle for discriminating between the two simple hypotheses at issue. If the work rules have not caused a change in the statistical process, then the null hypothesis ( $H_0$ ) states that predictions from an autoregression should produce errors that are approximately zero. If the work rules have indeed caused a change in the labor force process, then the alternative hypothesis ( $H_1$ ) states that predictions based only on past history should produce errors that are approximately consistent with the number of mandatory registrants.

Using annual data for the period 1947-1972, the following regression for the civilian labor force (CLF) is obtained:

---

<sup>11/</sup> See the interesting discussions in [5] and [6].

$$(1) \quad \text{CLF} = -4,127.8 + 1.064\text{CLF}_{-1} - 0.170\text{CLF}_{-2} + 0.183\text{CLF}_{-3}$$

(-2.9)            (4.6)            (-0.5)            (0.8)

$$\bar{R}^2 = .996 \quad \text{SER} = 461$$

where  $\bar{R}^2$  is the adjusted  $R^2$ , SER is the standard error of regression, and t-values are in parentheses.

A Chow test of equation (1), extending the period to 1947-1976, produces an F-value of 0.73 indicating that the hypotheses of no structural change at the time of the new work rules cannot be rejected at any reasonable level of significance.<sup>12/</sup>

The first column in the following tabulation contains the dynamic prediction errors (actual-predicted) of equation (1); the second column records the number of mandatory registrants;<sup>13/</sup> and the final column is an approximation to the standard error of forecast for equation (1) for two, three, and four periods ahead under the assumption that the coefficients are known:

	Dynamic Prediction Error <u>(000's)</u>	Number of Mandatory Registrants <u>(000's)</u>	Standard Error of Forecast <u>(000's)</u>
1974	-33	1,701	673
1975	-881	2,308	720
1976	-1,358	2,387	1,029

Since the dynamic prediction errors are small relative to the standard error of forecast,  $H_0$  cannot be rejected. But are the data sharp enough to reject  $H_1$ ? First of all, note that the dynamic prediction errors are of the wrong sign since, according to  $H_1$ , equation (1)

---

<sup>12/</sup>According to the Chi-square test, the probability that the residuals of this equation are not white noise is 0.0014.

<sup>13/</sup>Data are from Clarkson and Meiners [1], Table 8, p. 18.



should underpredict the actual civilian labor force because of the new group of registrants. Secondly, under  $H_1$ , the prediction errors should approximate the number of mandatory registrants. The relevant question then becomes: is the number of mandatory registrants less the dynamic prediction errors statistically different from zero? But this difference is on the order of three to four times the standard error of forecast; therefore there is strong evidence that  $H_1$  can be rejected.

The data for the female labor force are similar to the total labor force. Using annual data for the period 1947-1972, the following regression for the female labor force (FLF) is obtained:

$$(2) \quad \text{FLF} = -596.4 + 1.262\text{FLF}_{-1} - 0.624\text{FLF}_{-2} + 0.422\text{FLF}_{-3}$$

$$\quad \quad \quad (-1.7) \quad \quad (5.8) \quad \quad (-1.8) \quad \quad (1.8)$$

$$\quad \quad \quad \bar{R}^2 = .997 \quad \quad \text{SER} = 260$$

A Chow test of equation (2) extended to 1976 produces an F-value of 0.21, which again indicates that the hypothesis of no structural change at the time of the new work rules cannot be rejected.<sup>14/</sup>

The following tabulation shows the error data for the female labor force as described above for the civilian labor force:<sup>15/</sup>

	Dynamic Prediction Error (000's)	Number of Mandatory Registrants (000's)	Standard Error of Forecast (000's)
1974	-62	1,009	419
1975	-89	1,236	612
1976	4	1,289	863

---

<sup>14/</sup> According to the Chi-square test, the probability that the residuals of this equation are not white noise is 0.0006.

<sup>15/</sup> Data on the number of female mandatory registrants are calculated from the Clarkson-Meiners data using female percentages (for the month of June only) provided by the WIN office.

Again, the dynamic prediction errors are very small relative to the standard error of forecast so that hypothesis  $H_0$  cannot be rejected. The female labor force data are less clear with respect to hypothesis  $H_1$ . For the two- and three-period-ahead projections (1974 and 1975) the difference between the number of mandatory registrants and the dynamic prediction errors is on the order of two standard errors of forecast; but this difference for the four-period-ahead projection (1976) is well under two standard errors of forecast. However, the evidence found in the female labor force data clearly weighs against the hypothesis that there was a shift in the labor force by approximately the number of mandatory registrants.

We have examined only two simple hypotheses out of a continuum of possibilities. The facts that (1) autoregressions of the labor force pass structural change tests at the point of the work rule change, (2) prediction errors are generally of the opposite sign than would be expected under  $H_1$ , (3) prediction errors are generally small relative to the relevant standard error of forecast, and (4) prediction errors are generally small relative to the number of mandatory registrants all indicate that  $H_0$  is more plausible than  $H_1$ . Thus, until sharper estimates of the impact of the work rule changes are produced, the data argue that the hypothesis that the work rule changes have not caused a change in the labor force process should be preferred to the hypothesis that the new work rules have caused a shift in the labor force equal to the number of mandatory registrants.

#### 4. Conclusion

The evidence in this paper is that the legislation of the early 1970s had very little impact on the BLS household survey data. If

there was an effect, it was certainly not equivalent to the number of mandatory registrants.

Whatever meaning one attaches to the unemployment rate data prior to 1972 (e.g., actively seeking positions, hardship, mental anguish, or market failure) can also be applied to the post-1972 data. The legislation did not affect historical consistency. And a corollary to this study is that a "corrected" unemployment rate should not be computed by subtracting the number of mandatory registrants from both the number in the labor force and the number of unemployed.

This study, unfortunately, has done nothing to explain the problem of the persistently high unemployment rate. In our judgment, the explanation is likely to be found in the structure of incentives for being unemployed. Explaining unemployment via economic stimuli rather than work rules seems to be a more fruitful direction for economic research.

## Bibliography

- [1] Clarkson, Kenneth W., and Roger E. Meiners. "Inflated Unemployment Statistics: The Effects of Welfare Registration Requirements," Law and Economics Center, University of Miami School of Law (March 1977).
- [2] Editorial. "Wrong Number?," The Wall Street Journal (May 19, 1977).
- [3] Pittsburgh National Bank. Business News and Trends (March 28, 1977).
- [4] Rainwater, Lee. "Welfare and Working Mothers," Family Policy Note 6, Joint Center for Urban Studies of MIT and Harvard University (Summer 1977).
- [5] Smith, Ralph E. "Sources of Growth of the Female Labor Force, 1971-1975," Monthly Labor Review (August 1977), p. 27-29.
- [6] Sum, Andrew M. "Female Labor Force Participation: Why Projections Have Been Too Low," Monthly Labor Review (July 1977), p. 18-24.
- [7] U.S. Congress. "Income Security for Americans: Recommendations of the Public Welfare Study," Report of the Subcommittee on Fiscal Policy, Joint Economic Committee, 93rd Congress, 2nd Session, Washington: U.S. Government Printing Office (December 5, 1974).