

# Food Stamps and the Spurious Rise in the Unemployment Rate Re-examined

Among the more interesting topics for discussion in the usually dry, technical, and very specialized field of labor force statistics is the effect of noncyclical factors, such as demographic shifts and institutional changes, on the unemployment rate. "Government Statistics as a Guide to Economic Policy: Food Stamps and the Spurious Increase in the Unemployment Rate," by Kenneth W. Clarkson and Roger E. Meiners, which appeared in the Summer 1977 issue of *Policy Review*, provides a stimulating discussion of this question, but in my opinion, arrives at an erroneous conclusion. Their paper states that ". . . the high measured rate of unemployment of recent years can be explained in large part by a new class of individuals who are either largely unemployable or have no need or desire to work, but who, to qualify for various welfare benefits, must officially register for work." They go on to suggest that this "new class" of unemployed persons makes up 2-2.5 percentage points of the officially measured current rate of unemployment. This comment argues that Clarkson and Meiners, by attempting to elevate work-registration requirements from a valid but relatively minor point to the overwhelming factor in evaluating the comparability of current unemployment rates with rates reported in the past, have neglected or oversimplified the effect of other critical factors. Their paper 1) lacks an explicit statement of the underlying question; and in terms of the technical soundness of the statement they make implicitly, 2) gives inadequate attention to plausible rival hypotheses and the possible interactions among hypotheses; and 3) presents an over-simplified view of the labor force dynamics that might result from work registration requirements.

I could not find an explicit and complete statement of the question addressed by Clarkson and Meiners; they implicitly state that they believe that current unemployment rates are higher than past rates obtained under similar economic conditions. I deduced this by combining some of the thoughts

in their opening paragraph<sup>1</sup> with the comparisons between unemployment rates in various time periods with similar employment-to-population ratios on pages 43 and 44 and in Table 5. An explicit version of this question might be, "Why, for a given level of economic activity, as represented by the employment-to-population-ratio, are unemployment rates higher today than they were in the recent past?" The lack of such an explicit statement might be excused as a simple refusal to follow the copybook format with slavish devotion, but the formulation of the implicit question is deeply flawed. The two variables (unemployment rate and employment-population ratio), whose relationship is the source of the question, are linked directly by a third variable, the labor force participation rate.<sup>2</sup> Any scientific comparison of two variables directly related to a third variable must rigorously control for exogenous changes in that third variable.

#### Are Other Factors Responsible?

One of the major difficulties faced by any investigator seeking to explain the change in a relationship between two economic variables over time is establishing that the change is not an effect of other changes that are taking place at the same time, and, if there is more than one factor at work to cause change, to describe the nature of the interaction among them. Clarkson and Meiners do not convince this reader that factors other than those of their central thesis are not at least partly responsible for the observed changes. One major misinterpretation of alternative evidence, their treatment of the impact of demographic change on the unemployment rate, was particularly noticeable. A standard "weighted" unemployment rate exercise — applying the labor force proportions of several demographic groups at some base period to the actual unemployment rates for those groups in the comparison period —

1. "Many of the supporters of this law pointed to the unprecedentedly high rates of unemployment that continued to exist despite the presence of rapidly improving economic conditions." Kenneth W. Clarkson and Roger E. Meiners, "Government Statistics as a Guide to Economic Policy: Food Stamps and the Spurious Increase in the Unemployment Rates," *Policy Review*, Summer 1977, p. 27.

2. For the algebra behind this statement, see the appendix to this comment.

finds that the difference between the actual 1976 unemployment rate and a computed rate for 1976 standardized to 1957 labor force proportions is 1.04 percentage points (from 7.68 to 6.64).<sup>3</sup> In other words, if the age-sex composition of the labor force in 1976 had been the same as it was in 1957, while the unemployment rates for age-sex demographic groups remained at the values actually observed for 1976, the jobless rate would have averaged 6.6 percent in 1976, rather than the official rate of 7.7 percent. Other sources of noncomparability, such as changes in the unemployment insurance coverage and duration of benefits, changing patterns of job search or variations in military employment, are considered as separate effects by the authors, but there is no attempt made to address the problem of estimating the combined impact of these changes on the unemployment rate. Intuition suggests that the effect of interaction between variables would be to dilute the direct effect of any single variable. (If the range of other estimates of the effect of this single policy change can be taken as a gauge of the complexity of these interactions and their capacity to mask the direct effect of such a change (as is usually the case), it must be noted that Phillip Cagan has estimated that the registration of welfare mothers added just 0.2 percentage point to unemployment after 1972.<sup>4</sup>) Clarkson and Meiners do not confront the rival hypotheses and variable interactions problems, but simply stress the relatively large magnitude of the adjustments they have reported.

The size of the adjustment to current unemployment rates to account for the imposition of work-registration requirements reported by Clarkson and Meiners, and ascribed by them with such import, are themselves based on an over-simplified theory of the working of the labor market in the face of work-registration requirements. The Clarkson-Meiners theory is that all welfare or food stamp applicants during the period under investigation were not in the labor force (neither working

3. See Paul O. Flaim "The Impact of Demographic Changes on the Unemployment Rate," paper presented to the Nineteenth Annual Forecasting Conference of the New York Chapter of the American Statistical Association, New York, April 29, 1977.

4. Phillip Cagan "The Reduction of Inflation and the Magnitude of Unemployment," in *Contemporary Economic Problems*, American Enterprise Institute, (Washington, D.C., 1977) pp. 15-57.

nor seeking work) prior to their application for welfare and food stamp benefits and that upon registration at the employment service they were subsequently counted as unemployed. To "correct" the unemployment rate for this effect, Clarkson and Meiners subtract *all* such registrants from both the number of unemployed (the numerator in calculating the unemployment rate) and from the labor force (the denominator) and re-do the division to yield their version of the rate. The assumption that all welfare and/or food stamp registrants were neither working nor seeking work before applying for benefits is unwarranted. Analysts at the Congressional Budget Office have estimated, for example, that there were about 670,000 persons in 1976 who were a) recipients of food stamps, b) not in school, c) between 18 and 65, and d) working from 1 to 29 hours per week.<sup>5</sup> With the exception of those disabled, alcoholic and drug addicted workers or mothers or guardians of dependent children that may be included, these persons would all be included among those who would have been subjected to mandatory registration and should, according to Clarkson and Meiners, be "adjusted" out of the unemployment rate; but the official statistics would have included these people as employed, not as unemployed. There would also be a fairly large group of persons who were looking for work prior to registration for benefits and would use those benefits to reduce the cost of unemployed job search. Clarkson and Meiners themselves refer obliquely to this phenomenon.<sup>6</sup> That the food stamp program only requires work registration every six months or so also complicates the analysis of labor force changes. The official definition of unemployment requires active job search within four weeks of the household interview; non-working food stamp registrants — assuming they (or welfare recipients, for that matter) actually consider that compliance with the work registration requirement is a job-

5. Congressional Budget Office, "Discussion of 'Inflated Unemployment Statistics: The Effect of Welfare Work Registration Requirements,'" Mimeo, June 6, 1977.

6. "Individuals will search more often and for longer periods of time if the relative costs of job search decline. Since the value of welfare programs, such as food stamps, available to the unemployed has increased, the net loss or cost of being unemployed during job search has fallen." Clarkson and Meiners, *op. cit.*, p. 31.

search activity rather than a mere administrative requirement necessary to obtain benefits — might only be considered as actively looking for work (and defined as unemployed) in one out of six months. Plainly there are more complex labor market mechanisms at work than those assumed by Clarkson and Meiners.

I would like, as a final point, to compare one clear implication of the work-registration theory with some available data. If Clarkson and Meiners are correct and there is a large class of persons who become newly unemployed as a result of registration with the public employment service in connection with welfare and/or food stamp applications, and that the size of this class is of the magnitude they suggest, then one would expect that the proportion of job-seekers using public employment services as a job-search method would be significantly higher in the years following the 1972 imposition of the work-registration requirements than in the pre-1972 years. An examination of *Current Population Survey* data on job-search methods in the years 1970-1976 shows no such increase; in fact the proportions for all years after 1972 were *lower* than in 1970 or 1971. (See Table 1).

#### Statistics Under Continuous Review

The question of the accuracy and utility of the government's unemployment statistics is one of continuous concern. In fact, the Congress and the President have recently authorized and constituted an official commission, independent of the Labor Department and the Bureau of Labor Statistics, to investigate the issue and report any changes to current usage that would improve the unemployment statistics system.<sup>8</sup> I am sure that the proceedings of the National Commission on Employment and Unemployment Statistics, and the debates that surround

7. *The Current Population Survey (CPS)* is a monthly survey of a scientifically selected sample of 47,000 persons that is conducted by the Census Bureau for the Bureau of Labor Statistics. The *CPS* is the source of the official unemployment rate and a vast array of related labor force statistics. For more information on this topic see, *BLS Handbook of Methods*, Report 1910, Bureau of Labor Statistics, 1976.

8. See John E. Bregger "Establishment of a new Employment Statistics Review Commission," *Monthly Labor Review*, March 1977, pp. 14-20.

them, will help to achieve the goal of improved data on labor market problems. Clarkson and Meiners could make a useful contribution to that goal if they would concentrate their effort on the less sweeping conclusion that the welfare work-registration requirements have had some significant upward impact on the unemployment rate in recent years. If they are able to present a systematic proof of that point, they might then wish to undertake the more difficult task of unraveling the magnitude of any such effect from the tangle of alternative and interactive explanatory variables.

Table 1: Proportion of total job-seekers utilizing public employment services, 1970-1976

<i>Year</i>	<i>Percent using public employment services</i>
1970	30.2
1971	30.8
1972	28.4
1973	25.9
1974	26.3
1975	29.0
1976	28.1

Source: *Current Population Survey, 1976.*

*APPENDIX: The Relationship of the Unemployment Rate, the Labor Force Participation Rate, and the Employment-to-Population Ratio.*

In their recent article, K. W. Clarkson and R. E. Meiners present a table comparing current unemployment rates with rates for past years that had similar employment-to-population ratios. This note will demonstrate algebraically that this comparison is not valid unless explicit account is taken of the labor force participation rate.

*Symbols*

P = civilian noninstitutional population

L = civilian labor force

E = employed

U = unemployed

N = not in labor force

*Definitions*

(1)  $a = \text{unemployment rate} = U/L$

(2)  $b = \text{labor force participation rate} = L/P$

(3)  $c = \text{employment to population ratio} = E/P$

(4)  $L = E + U$

(5)  $P = L + N$

*Demonstration*

Substituting (2) into (5) and solving N yields

(6)  $N = (1 - b) P$ .

Solving (2) for L, and substituting (2) and (6) into (5) yields

(7)  $P = bP + (1 - b)P$ .

Solving (1) and (3) for U and E respectively and substituting (1) and (3) into (4) yields

(8)  $L = cP + a(bP)$

when  $bP = L$  is substituted for L in (1).

Substituting (8) and (6) into (5) yields

(9)  $P = cP + abP + (1 - b)P$ .

Division of 9 by P yields

(10)  $1 = c + ab + 1 - b$

Solving (10) for a yields

(11)  $a = 1 + \frac{-c}{b}$

(11a)  $a = 1 - \frac{c}{b}$

*Conclusions*

It is obvious from equation (11a) that any comparison of the unemployment rate and the employment-to-population ratio must consider the labor force participation rate as well. For example, in order for the ratio of unemployment and employ-

ment to remain constant across time, the participation rate must also be constant. That is, conclusions drawn from unemployment rate, employment ratio comparisons over time without controlling for participation rates will be distorted when the participation rate is changing.

*Richard M. Devens*

## A Rejoinder

In his comment on our *Policy Review* article, "Government Statistics as a Guide to Economic Policy," Devens makes three major criticisms, and each will be examined in turn.

First, Devens states that our paper "lacks an explicit statement of the underlying question." From comments made by our other readers, including academic economists, statisticians, policy-makers and the general public, it is obvious that the underlying question is clear to them. That underlying question is: does the current government unemployment rate contain a bias?

Second, we are charged with ignoring alternative hypotheses in the development of our hypothesis. In our article (pp. 29-31), we reviewed the literature and concluded that the recent major changes in the official unemployment rate could not be fully explained by existing alternative hypotheses. In particular, the major thrust of the Devens argument is that comparisons of the unemployment rate to the employment-population ratio must consider labor force participation. We agree, and have subjected our estimates to the competing hypothesis that the increase in female labor force participation rates accounts for the unprecedentedly high official unemployment rates. In our original article (p. 30), we demonstrated that only two tenths of one percentage point of the 7.8 percent unemployment for September 1976 can be accounted for by the increase in female participation rates.

More importantly, the Devens Appendix — intended to