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THREE-AND-A-HALF MILLION U.S. EMPLOYEES
HAVE BEEN MISLAID; OR, AN EXPLANATION
OF UNEMPLOYMENT, 1934-1941

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Perceptive questioning by James C. Lothian and comments by Anna Schwartz wrested the admission that my theoretical framework could not explain the high unemployment rates of 1934 through 1941 unless millions of people were gainfully employed as "unemployed." Thinking of generous unemployment insurance, I had no idea that my hyperbole would prove literally correct. Mrs. Schwartz's incomparable knowledge of data resources provided the key references. The regression was run on the NBER's Troll system by Nurhan Helvacian.

ABSTRACT

DARBY, M.R. — Three-and-a-Half Million U.S. Employees Have Been Mislaid; Or, An Explanation of Unemployment, 1934-1941

A major conceptual error in the standard BLS and Lebergott unemployment estimates for 1933-1943 is reported. Emergency workers (employees of federal countercyclical programs such as WPA) were counted as unemployed on a normal-jobs-to-be-created instead of job-seekers unemployment definition. For 1934-1941, the corrected unemployment levels are reduced by two to three-and-a half million people and the rates by 4 to 7 percentage points. The corrected data show strong movement toward the natural unemployment rate after 1933 and are very well explained by an anticipations-search model using annual full-time earnings.

Three-and-a-Half Million U.S. Employees

Have Been Mislaid; Or, An

Explanation of Unemployment, 1934-1941

When Keynesian, post-Keynesian, or neo-Keynesian economists denounce the central monetarist proposition that the economy converges to full-employment in the absence of shocks, the prime empirical contradiction is the well-known persistence of high (though falling) levels of unemployment from 1934 through 1941. If convergence to full employment is so slow, it is argued, it might as well be ignored. So the explanation of this era is the central challenge to monetarist or dynamic economists. Despite immense theoretical and empirical effort, no real answer has been given.

This paper argues that the inability of monetarist models to explain such large, persistent unemployment rates is an asset, because those unemployment rates did not in fact exist. The previously reported unemployment rates include among the unemployed literally millions of employees on the payrolls of government emergency relief projects such as the Works Progress Administration and the Civilian Conservation Corps. On neither modern search theory nor Keynesian grounds should contracyclical government employment be counted instead as unemployment.

Section I demonstrates that the standard unemployment series¹ do indeed count "emergency workers" as unemployed and suggests the reasoning which led to this misconception. Corrected data for employment, unemployment, and the unemployment rate are presented in Section II. It is shown in Section III that the corrected data are consistent with a search approach to unemployment in which deviations of the actual from the natural level of unemployment are explained by deviations of actual from anticipated levels of wages and prices. My summary and conclusions follow.

I. The Standard Treatment of Emergency Workers

There are two standard data sets for the labor force, employment, and unemployment from 1929 through 1943: the official Bureau of Labor Statistics (BLS) data and the Lebergott data taken from Stanley Lebergott's book (1964). Either series could be called the "Lebergott data" since the original presentation of the BLS data is in Lebergott (1948).² Though both standard data sets thus can be attributed to Lebergott, the treatment of "emergency workers" as unemployed was standard practice in the estimates of that period.³

Lebergott (1948) — perhaps too inured to the Census Bureau definition — makes no mention whatsoever of the exclusion of emergency workers from employed and their inclusion in unemployed. This practice can be confirmed only by tracing back to the Census Bureau source document for the 1940 to 1946 data to which the 1929-1939 estimates are tied.⁴ I found only one explicit statement by Lebergott on the inclusion of emergency workers among the unemployed:

These estimates for the years prior to 1940 are intended to measure the number of persons who are totally unemployed, having no work at all. For the 1930's this concept, however, does include one large group of persons who had both work and income from work—those on emergency work. In the United States we are concerned with measuring lack of regular work and do not minimize the total by excluding persons with made work or emergency jobs. This contrasts sharply, for example, with the German practice during the 1930's when persons in the labor force camps were classed as employed, and Soviet practice which includes employment in labor camps, if it includes it at all, as employment.⁵

If we exclude the forced analogy of the W.P.A. to Nazi labor camps and suppose that Lebergott did nothing more than follow common practice in the 1930's, the question remains whether there is any valid rationale for this treatment.

The answer appears to depend upon the particular year in question. From 1930 through 1932, work relief was used as an apparently minor part of the general relief program of some states and cities⁶ although this increased in the latter part of 1932 under Reconstruction Finance Corporation advances (repayment later waived) "for relief and work relief to needy and distressed people and in relieving the hardships resulting from unemployment."⁷ Work under these programs was generally for a few hours per week and could hardly be said to constitute employment. So it was certainly a reasonable decision to count these recipients of work relief as unemployed rather than as government employees. Note however that the national income accounts do treat these as wage rather than transfer payments.

Substantial federal subsidies for state relief (including work relief) continued through November of 1933. State work relief recipients are estimated to have averaged 1.72 million people in 1933.⁸ This implies an annual average wage—based on the national income accounts data—of \$197.80 or less than 20 percent of the average annual earnings per full-time employee. So although enrollment in state programs increased in this year from about 1 percent to about 3 percent of the labor force,⁹ the programs could certainly still be classed as government relief rather than employment programs.

Various New Deal programs created what is known as the emergency government labor force. Broadly speaking, these emergency workers can be divided into two classes: (1) Those working in youth (16 to 24 years) programs under the Civilian Conservation Corps (CCC, April 1933-June 1943) and the out-of-school National Youth Administration (NYA, January 1936-May 1943) programs. (2) The much larger regular program consisting of the Civil Works Administration (CWA, November 1933-July 1934), the Emergency Work-Relief Program (April 1934-December 1935) of the

Federal Emergency Relief Administration (FERA), and the Works Progress Administration (WPA, July 1935-June 1943, titled Work Projects Administration beginning July 1939). The regular programs, which employed on average 82 percent of the emergency labor force, were mainly (75 to 85 percent of expenditures) involved in construction projects. FERA's Emergency Work-Relief Program was operated through state agencies but the others were directly administered by the federal government.

The emergency government labor force worked on qualitatively different terms than the earlier state work-relief recipients. Jobs were substantially full-time (24 to 40 hours per week) and at competitive wages.¹⁰ Preference was given to those eligible for relief, but this was not a bar to unemployed people. The programs were mainly aimed at and attractive to unskilled labor. From 1934 through 1940, annual wages were about one-half of the annual average earnings per full-time employee in all industries, as shown in Table 1. So here, the national income accountants are undoubtedly correct in treating emergency workers as government employees receiving payment for labor services.

From the Keynesian viewpoint, labor voluntarily employed on contracyclical construction and other government projects should certainly be counted as employed. On the search approach to unemployment, a person who accepts a job and withdraws from the activity of search is clearly employed. The contracyclical intent of the government employer is irrelevant to the definition of unemployment as currently used by the BLS.

Besides bureaucratic inertia which carried forward the earlier treatment of state work-relief recipients, the misclassification of emergency workers can be attributed to an implicit definition of unemployment as the difference between the normal labor force and those employed in normal jobs. The pioneering estimates by the National Industrial Conference Board (NICB) aimed at estimating how many jobs would have to be created in order to get back to a normal situation

of no depression and therefore no emergency government labor force. Measuring jobs-to-be-created leads to different treatment than measuring people without work who are seeking it.¹¹ Of course, no consideration was given to emergency employment's crowding-out private employment or the state and local construction work which it replaced.

In summary, counting state work-relief recipients as unemployed was justified by the facts¹²— they had both time and incentive to search for alternative employment. Counting members of the emergency government labor force as unemployed represents a major conceptual error.¹³

II. Corrected Estimates for 1929-1943

It is straightforward to correct the BLS and Lebergott data for the misclassification of emergency workers. Both the standard and corrected data are presented in Table 2. Comparing the standard¹⁴ and corrected unemployment figures in columns (12) and (13), it is clear that the misclassification of emergency workers almost completely masked both the speed and strength of the return of unemployment toward normal levels in 1934 through 1941. The employment level for 1936 is understated in the standard data by over three-and-a-half million people and by over two million as late as 1941.

This difference is seen most clearly in terms of the unemployment rates reported in Table 3. For example, the Lebergott data overstate the unemployment rate by 0.9 percentage point in 1933. This rises to 4.8 in 1934, 4.9 in 1935, and a full 6.9 percentage points in 1936. Not until 1941 was the overstatement down to even 3.9 percentage points. Put another way, the reported reduction of unemployment from 1932 to 1936 was only about a half of the actual reduction.

III. An Anticipations-Search Explanation of the Corrected Data

The corrected unemployment rates for 1934 through 1940 are still high, though no longer absurdly so. Since 1900 the unemployment rate shows "no discernible trend."¹⁵ Except for the 1900's and 1930's, every decade in the twentieth century has shown an average unemployment rate of 5 percent¹⁶—about the current estimate of the natural rate of unemployment. The question naturally arises whether the corrected data are consistent with a model in which the unemployment rate tends to the natural rate in the absence of shocks.

Robert Lucas and Leonard Rapping (1972) have shown that from 1930 through 1933, their simple search model (1969) does well both qualitatively and quantitatively.¹⁷ It does slightly better with the corrected data for 1933. Presumably, a similar result would hold for any anticipations-search model which can be expressed as

$$(1) \quad u_t = a_0 + a_1 \log (W_t/W_t^*) + a_2 \log (P_t/P_t^*)$$

where u_t is the unemployment rate, a_0 is the natural unemployment rate, W_t and W_t^* are the actual and anticipated nominal wage levels and P_t and P_t^* are the actual and anticipated price levels. Lucas and Rapping report that their model fails to explain high levels of unemployment from 1934 through 1941 because rapid increases in nominal wages imply that the unemployment rate should fall to near the natural rate in 1934 or at the very latest by 1937. Even the corrected data show a much less rapid fall.

The main problem derives from the hourly wage series used by Lucas and Rapping¹⁸ which rises by 12 percent in 1934. This reflects a 4 percent rise in annual compensation per full-time employee and a 7.2 percent fall in hours of work. Other series on hourly wages show a similar jump in 1934 due to a large decline in reported hours and a small increase in annual wages.¹⁹ This is extremely peculiar behavior for the average hours of work which is normally a very reliable leading

(1959)
 indicator--leading more at peaks than at troughs. Indeed Gerhard Bry's study of the average work week showed only one cycle in average weekly hours not corresponding to a reference cycle: the peak of July 1933 and trough of September 1934.

The explanation for this exceptional behavior of hours and wages is easy to find: The National Industrial Recovery Act (passed June 16, 1933) and succeeding legislation. NRA codes and later wage and hours laws, aimed at limiting the hours of work and increasing hourly wages. Significantly, Bry (p. 107) reports: "The sample reporting manhours expanded greatly between 1932 and 1934, large because of cooperation by the various code authorities of the NRA." Now this reported fall in average hours and rise in wages could reflect some combination of three factors: (1) whole-hearted compliance with the law and codes; (2) a change in firms' reporting practices--entirely legal--so as to eliminate inclusion of rest and meal breaks in reported hours; and (3) falsification of reported hours and wages as part of an evasion scheme. A cynical economist such as the author might suspect that the data primarily reflect items (2) and (3), but this is clearly a topic for detailed historical research.²⁰ If the change in hours is largely spurious, average earnings per full-time equivalent employee would more accurately reflect the development of wages in the 1930's.

In any case, traditional models of search have used "the wage" as a shorthand expression for total conditions of employment. This concept would appear to be better represented by annual earnings of full-time workers--or of all employees--in a period in which total hours are being rationed.

In view of these questions concerning the use of reported hourly wages, equation (1) was estimated for 1930 to 1941 using the corrected Lebergott unemployment rate, average annual earnings per full-time employee, and the GNP price deflator for u_t , W_t and P_t , respectively.²¹ The anticipated levels of wages and prices were estimated by a simple adaptive expectations formulation:

$$(2) \quad W_t^* = W_t + (1-\lambda) (1+g_1) W_{t-1}^*$$

$$(3) \quad P_t^* = P_t + (1-\lambda) (1+g_2) P_{t-1}^*$$

Here λ is the coefficient of adjustment and g_1 and g_2 are the trend growth rates of wages and prices.²² More elaborate models of anticipations might well yield better explanations, but were not tried because of the scarcity of degrees of freedom. I use the word anticipations instead of expectations by way of reminder that short-run aggregate supply or Phillips curve reflect past expectations of current prices, as embodied in contracts, as well as current expectations of searchers.

Equation (1) was estimated by a simple maximum likelihood technique. OLS regressions were run conditional upon the value of λ for $\lambda = 0.0, 0.025, 0.05, \dots, 0.95, 0.975$. The maximum likelihood estimate is:²³

$$(4) \quad u_t = 8.87 - 22.80 \log (W_t/W_t^*) - 57.51 \log (P_t/P_t^*)$$

(0.74)	(17.65)	(23.47)
12.00	-1.29	-2.45

$$SEE=1.70, R^2(\text{cor.})=0.926, D-W=1.68, \hat{\lambda}=0.175 [0.075, 0.35]$$

The simple model does rather well at explaining the fluctuations in the unemployment rate over the period 1930-1941. One suspects that the standard error of estimate and 92 percent R-squared must be overoptimistic. The constant term is well below the sample mean of the dependent variable (13.9 percent) but is significantly above the natural rate of unemployment of about 5 percent. The independent variables are rather collinear and it was observed that higher values of λ (within the confidence interval) increase the relative coefficient and significance of $\log (W_t/W_t^*)$ and conversely for lower values of λ . The λ estimate is lower than Lucas and Rapping estimate which was inferred, however, from the coefficient of the lagged dependent variable in a Koyck transformation of equation (1).

These results are best interpreted as negating the view that anticipations-search models have no role in explaining unemployment during 1934-1941. Only a much broader study incorporating postwar data and New Deal institutional changes could provide a clear picture as to the amount of excess unemployment which can be attributed to normal search behavior versus the amount caused by New Deal programs.

IV. Conclusions and Summary

This paper radically alters our empirical conception of unemployment during the 1930's. The fact that unemployment rose to nearly one quarter of the labor force in 1932-1933 is unchanged, but that fact is readily explained by the heroic ineptness of Federal Reserve policy. What is changed is the "un-fact" that recovery was extremely slow from 1934 through 1941. From 1933 to 1936, the corrected unemployment rate fell by nearly 5 percentage points per year and there is every reason to suppose that the rate would have been about 5 percent by 1938 had the Fed not doubled reserve requirements between August 1936 and May 1937.

To be sure, during 1934-1940 between 4½ to 7 percent of the labor force was employed in contracyclical, make-work public construction jobs, but there is little empirical evidence in the postwar period that the government spending multiplier is much above zero over such a long period as two or three years. Certainly the unemployment rate behaves as if the federal programs crowded out private employment—particularly on the state and local construction works which would otherwise have been required.

In Section III, it was seen that the utter inability reported by Lucas and Rapping of anticipations-search models to explain unemployment during the recovery period 1934-1941 can be attributed in part to errors in the unemployment data and in part to the use of an inappropriate hourly wage plagued by the introduction of reporting biases with the advent of the NRA. Only a broader study over an extended time period can provide a realistic estimate of the residual increase in unemployment that might be directly attributable to such programs as the NRA. But it is clear that the cyclical behavior of unemployment in the 1930's generally conforms to movements in actual versus expected wages and prices as predicted by modern natural-rate models.

In summary, a major conceptual error in the standard BLS and Lebergott data has been uncovered. Emergency workers (employees of federal contracyclical programs such as WPA) were counted as unemployed due to the use of an implicit definition of "normal jobs to be created" instead of the standard job-seekers definition. Estimates were affected for 1933-1943 and, during 1934-1941, by huge amounts—2 to 3½ million unemployed people or about 4 to 7 percentage points on the unemployment rate. The corrected data reveal a strong movement toward the natural unemployment rate after 1933. A simple anticipations-search model of the Lucas-Rapping type explains the corrected data very well when average full-time earnings are used as the nominal wage, but further research is required on the possible influence of NRA and similar programs in increasing the unemployment rate.

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FOOTNOTES

¹Specific reference is to the series B1 (Lebergott) and B2 (Bureau of Labor Statistics) reported in Dept. of Commerce (1973).

²Lawrence R. Klein was listed as Chief, Office of Publications of the BLS.

³Most notably, the Bureau of the Census and the National Industrial Conference Board (NICB). A typical Census publication reads: "On the basis of the answers to these questions, persons in the labor force were classified into the following employment status categories: (a) 'Employed (except on public emergency work),' including those reported as at work and those with a job but not at work; and (b) unemployed, including those 'On public emergency work' and those 'Seeking work.'" Bureau of the Census, (1944, p. 2). Similarly, "Unemployment—The difference between the number of persons in the labor force and the number of persons employed. Persons on the payrolls of government emergency relief projects, such as WPA, CCC, and out-of-school NYA, are not considered employed." NICB (1945, p. 389).

⁴This is Bureau of the Census (1947). At page 1, it states: "During the period in which public emergency work projects were being conducted by the Works Project Administration (WPA), the National Youth Administration (NYA), the Civilian Conservation Corps (CCC) and State and local work relief agencies (this period ended about June 1943), persons at work on, or assigned to, such projects were also included among the unemployed." I suspect that almost no one currently at the BLS is aware that they are reporting (for example, Employment and Earnings, April 1975, p. 19) data for 1933-1943 which includes emergency workers among the unemployed. Certainly the standard explanatory notes (pp. 135-142 for the same issue) state that "employed persons comprise (a) all those who during the survey week did any work at all as paid employees,..." count people currently on similar government programs as employed, and mention no problems under "Historic Comparability."

⁵Lebergott (1957, p. 229); repeated verbatim in Lebergott (1964, pp. 184-185).

⁶The national income accounts show state and local work-relief wages (in millions of dollars) as:

1930	1931	1932	1933	1934	1935	1936	1937	1938	1939	1940	1941	1942
4	46	92	341	680	791	74	48	8	10	10	6	2

Data from Dept. of Commerce (1947), Table 14, p. 27.

⁷Emergency Relief and Construction Act of July 21, 1932, title I, sec. 1a.

⁸Dept. of Commerce (1966, p. 98).

⁹The Commerce Department (1966, p. 98) estimates of the number of state and local work relief workers for 1930-1932 are 20 thousand, 299 thousand, and 592 thousand.

¹⁰The conditions of the major programs are summarized in Appendices 2 through 5 of the National Resources Planning Board (1942). Wages were generally set at "prevailing" or "fair" levels for the skill class of the work, or at minimum rates where higher than the market wage.

¹¹On this view, employment can exceed the "normal" labor force and negative unemployment is reported as in 1906, 1917-1919, and 1942-1944. NICB (1945, pp. 38-39). Milton Friedman suggested it might be interesting to compute the unemployment rate for the postwar era on the definition of unemployment as job-seekers plus employees of "make-work" jobs. Unfortunately it is much easier to estimate which make-work employees were counted as unemployed in the 1930's than to estimate the number of postwar government (and private?) employees on make-work jobs.

¹²But a strict application of the modern definition, which counts part-time workers, would include these people as employed.

¹³A word of warning should be given about the Census Bureau data on the duration of unemployment. These too should be taken with a large grain of salt because "[t]he duration of unemployment represents the length of time (up to March 30, 1940) during which these persons had been seeking work or working on public

emergency projects." Bureau of the Census (1943, p. 7).

¹⁴Lebergott explicitly adopted (1964, pp. 407-408) the BLS figures on unemployment for 1929-1939 because his revised estimates differed only slightly from the BLS data already in widespread use. To maintain consistency, Lebergott reported employment as his revised labor force estimates less the BLS unemployment data. From 1940 onwards, Lebergott adopted the BLS data without change.

¹⁵Lebergott (1964, p. 188).

¹⁶Lebergott (1964, p. 189) reports a decade average of 4 percent for the 1900's and 18 percent for the 1930's. The corrected data (cols. (16) and (17) of Table 3) show a 1930's average of 15 percent but 4 percent for the 1940's.

¹⁷Lucas and Rapping used the Lebergott estimates of unemployment. Their discussion starts in 1930 instead of 1929, apparently because of data availability in series not considered here. They were fortunate in this regard as no reasonable model could explain the reported 3.2 percent unemployment rate in 1929—a drop of 1 percentage point from 1928. The 1930 unemployment rate of 8.9 percent seems reliable because of the decennial census, but it is incredible that a bit under 10 percent drop in real GNP could be associated with a 5.7 percentage point increase in the unemployment rate from 1929 to 1930.

¹⁸This is the Commerce Department (1966) estimates of compensation of employees in all industries (line 1, pp. 90-93) divided by the product of (a) the number of full-time equivalent employees in all industries (ibid., line 1, pp. 102-105) and (b) the average annual hours per employee (Denison, p. 37—not p. 85—column (3)). Unfortunately Lucas and Rapping (1969, p. 742, n. 27) had misinterpreted their (secondary) source as reporting "annual hours worked per year by full-time employees" when it in fact reports "actual average annual hours per employee" as is seen in the original presentation by James Knowles (p. 26).

¹⁹See for example, series such as D626 and D627 on wages and hours in manufacturing in Bureau of the Census (1960, p. 92).

²⁰Such as in the thesis of Michael Weinstein, currently underway at M.I.T. It has been argued, most recently by Robert Hall, that the NRA codes and the succeeding wage and hour laws raised wages by fiat and so changed the character of unemployment from search unemployment (1929-1933) to minimum wage unemployment (1934-1941). This is a competing but possibly complementary hypothesis to that in the text. Recent papers by Finis Welch and Jacob Mincer note that the main effect of such laws would be on the distribution of employment between covered and uncovered sectors rather than the unemployment rate per se. Further research on the precise effects of these institutional changes is clearly called for.

²¹The u_t data are from Table 3, col. (16). The W_t series for 1929-1941 are Commerce Department data (series D696, Bureau of the Census (1960), p. 95). It was extended back to 1924 by using the Kuznets estimates (series D685, ibid.) and a ratio splice based on the 1929 overlap. This earnings series is \$19 to \$21 less than average FTE compensation for 1930-1935, but this difference rises to \$50 by 1937 and \$63 by 1941 because of the inclusion of employer social security and unemployment insurance taxes. This increase in employer taxes would not represent a wage increase from the point of view of a job-seeking worker; so the earnings series was used. The P_t series for 1929-1941 is Commerce Department data (series B62, Dept. of Commerce (1973), pp. 222-23). It was extended back to 1924 by using the NBER-Kendrick estimates (series B61, ibid.) and a 1929 ratio splice.

²²The required initial values of W_t^* and P_t^* were taken as equal to the actual values in 1924, a year in which Lebergott estimates a 5.0 percent unemployment rate. The anticipated growth rate of prices g_2 was taken as 0 which is consonant with both the gold standard and actual experience from 1921-1941. The corresponding anticipated growth rate of nominal (and real) wages was estimated as 1 1/3% per annum.

²³The standard errors are given in parentheses below the coefficients and above the t-statistics. The reported statistics have been adjusted for the loss of a degree of freedom in fitting λ . A greater than 90 percent confidence interval on λ (based on the asymptotic distribution of the logarithm of the likelihood function) is given in brackets after the estimated value 0.175.

Table 1
Emergency Government Labor Force
Employment and Wages, 1933-1943

Year	Emergency Workers (Thousands) (1)	Average Annual Wages		Relative Wage of Emergency Workers (Percent) (4)
		Emergency Workers (Dollars) (2)	All Industry (Dollars) (3)	
1933	471	755.83	1,048	72.1
1934	2,475	508.69	1,091	46.6
1935	2,575	469.51	1,137	41.3
1936	3,653	595.13	1,184	50.3
1937	2,707	605.10	1,258	48.1
1938	3,572	590.71	1,230	48.0
1939	3,216	583.02	1,264	46.1
1940	2,792	565.54	1,300	43.5
1941	2,192	553.38	1,443	38.3
1942	909	638.06	1,709	37.3
1943	85	588.24	1,951	30.2

Sources: Column (1): Federal work relief full-time and part-time employees, Table 6.3, line 78, pp. 98, 99, of Dept. of Commerce (1966). For 1934 and 1935, 1335 thousand and 1585 thousand, respectively, employees of FERA's state-administered Emergency Work-Relief Program are added on the basis of annual average of monthly data for April 1934-December 1935 in Table 13. 3rd col., p. 46, of WPA (1942). Slightly different data (taken from preliminary reports such as FERA (1936) but showing monthly breakdowns by program) on the emergency government labor force are available in NICB (1941, 1945).

Column (2): Wages and salaries of federal work relief employees, Table 6.2, line 78, pp. 94, 95, of Dept. of Commerce (1966) divided by column 1. For 1934 and 1935, \$495 million and \$598 million, respectively have been added to wages and salaries as the proportionate share of FERA workers in

total state and local work relief wages reported (ibid., line 84) for those years. This is a minimum estimate as work relief recipients in state and local programs in 1933 averaged less than half the average for 1934.

Column (3): Average annual earnings per full-time employee in all industries, series D696, Bureau of the Census (1960, p. 95).

Column (4): Col. (2)/Col.(3).

Table 2
Civilian Labor Force, Classified by Employment Status

Standard and Corrected Data, 1929-1943

Year	Civ. Labor Force		Emergency Workers (7)	Employment		Unemployment			
	Lebergott (5)	BLS (6)		Lebergott (8)	BLS (9)	Cor. Leb. (10)	Cor. BLS (11)	BLS/Leb. (12)	Corrected (13)
1929	47,757	49,180	0	46,207	47,630	46,207	47,630	1,550	1,550
1930	48,523	49,820	0	44,183	45,480	44,183	45,480	4,340	4,340
1931	49,325	50,420	0	41,305	42,400	41,305	42,400	8,020	8,020
1932	50,098	51,000	0	38,038	38,940	38,038	38,940	12,060	12,060
1933	50,882	51,590	471	38,052	38,760	38,523	39,231	12,830	12,359
1934	51,650	52,230	2,475	40,310	40,890	42,785	43,365	11,340	8,865
1935	52,283	52,870	2,575	41,673	42,260	44,248	44,835	10,610	8,035
1936	53,019	53,440	3,653	43,989	44,410	47,642	48,063	9,030	5,377
1937	53,768	54,000	2,707	46,068	46,300	48,775	49,007	7,700	4,993
1938	54,532	54,610	3,572	44,142	44,220	47,714	47,792	10,390	6,818
1939	55,218	55,230	3,216	45,738	45,750	48,954	48,966	9,480	6,264
1940	55,640	55,640	2,792	47,520	47,520	50,312	50,312	8,120	5,328
1941	55,910	55,910	2,192	50,350	50,350	52,542	52,542	5,560	3,368
1942	56,410	56,410	909	53,750	53,750	54,659	54,659	2,660	1,751
1943	55,540	55,540	85	54,470	54,470	54,555	54,555	1,070	985

In thousands of people.

Sources: Columns (5), (8), and (12): Lebergott (1964, p. 12).

Columns (6), (9), and (12): Lebergott (1948, p. 51).

Column (7): Col. (1), Table 1 above.

Column (10): Col. (8) + Col. (7).

Column (11): Col. (9) + Col. (7).

Column (13): Col. (5) - Col. (10) = Col. (6) - Col. (11) = Col. (12) - Col. (7).

Table 3
Unemployment Rates
Standard and Corrected Data, 1929-1943

Year	Unemployment Rates			
	Lebergott (14)	BLS (15)	Corrected Lebergott (16)	Corrected BLS (17)
1929	3.2	3.2	3.2	3.2
1930	8.9	8.7	8.9	8.7
1931	16.3	15.9	16.3	15.9
1932	24.1	23.6	24.1	23.6
1933	25.2	24.9	24.3 ^a	24.0 ^a
1934	22.0	21.7	17.2	17.0
1935	20.3	20.1	15.4	15.2
1936	17.0	16.9	10.1	10.1
1937	14.3	14.3	9.3	9.2
1938	19.1	19.0	12.5	12.5
1939	17.2	17.2	11.3	11.3
1940	14.6	14.6	9.6	9.6
1941	9.9	9.9	6.0	6.0
1942	4.7	4.7	3.1	3.1
1943	1.9	1.9	1.8	1.8

In percentage points.

^aThe number of state and local work-relief recipients was substantial for the year 1933. Classification of the estimated 1,724 thousand recipients as employed would decrease the corrected unemployment rates further to 20.9% (Lebergott) and 20.6% (BLS). Other years for which classification of state and local work-relief recipients as employed would reduce the rates reported in cols. (16) and (17) by more than 0.2 percentage points are 1931 (0.6 reduction), 1932 (1.2), 1934 (1.0), and 1935 (1.0).

Sources: Column (14) = Col. (12)/Col. (5).

Column (15) = Col. (12)/Col. (6).

Column (16) = Col. (13)/Col. (5).

Column (17) = Col. (13)/Col. (6).