UNITED STATES DEPARTMENT OF LABOR
L. B. Schwellenbach, *Secretary*

BUREAU OF LABOR STATISTICS
Ewan Clague, *Commissioner*

Wartime Wages, Income, and Wage Regulation in Agriculture

Bulletin No. 883

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Letter of Transmittal

United States Department of Labor,
Bureau of Labor Statistics,
Washington, D. C., August 29, 1946.

The Secretary of Labor:

I have the honor to transmit herewith a report on wartime wages, income, and wage regulation in agriculture. This report was prepared by Marilyn Sworzyn, under the direction of Witt Bowden, of the Bureau's Labor Economics Staff. The principal sources of information were data published or made available by the Bureau of Agricultural Economics and the Production and Marketing Administration of the Department of Agriculture. The cooperation of these agencies is gratefully acknowledged.

Ewan Clague, *Commissioner.*

Hon. L. B. Schwellenbach,
Secretary of Labor.

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Wartime Wages, Income, and Wage Regulation in Agriculture[1]

PART 1.—FARM WAGES AND LABOR COST

Farm wage rates, which lagged appreciably behind nonfarm wages prior to 1939, made unprecedented gains during the war period. Labor shortages, due to military requirements and to industrial competition for manpower, accounted for much of the increase. An additional cause was the rise of farm incomes and prices resulting from the unsatiated demand for farm products.

The composite farm wage rate for the United States as a whole rose 192 percent from $29.40 per month in January 1940 to $85.90 in January 1946. The greatest gains occurred in the West North Central, West South Central, and Pacific regions. The smallest increase was realized in New England. Piece rates for picking seed cotton in the major cotton-producing States rose more in the war period than did the general farm rates in all but 5 of the less important cotton-growing States.

The farm wage bill as a proportion of total production expenses of farm operators rose from 17 percent in 1935–39 to 20 percent in 1945, approaching the ratio of 20 percent that existed in the parity base period, 1910–14. Cash wages increased at a more rapid rate than did the payment of perquisites.

Farm Wage Rates by Regions and Types of Payment

Farm wage rates per day and per month, with and without board—the four types of farm wage payments for which the Bureau of Agricultural Economics publishes quarterly figures—climbed to peak levels over the war period in every region of the Nation. Labor shortages, an unsatiated demand for farm products, rising farm prices and income, and increased productivity in agriculture, all contributed to the unprecedented rise in farm wages.[2]

Although the relative increases in farm wage rates during the war far exceeded the general rise in nonfarm rates, the gains of agricultural

[1] Reliance has been placed principally upon data published or made available by the Bureau of Agricultural Economics and the Production and Marketing Administration of the Department of Agriculture.

[2] Approximately three-fourths of farm workers are family workers who, as members of the families of farm operators, do not work for wages. This article discusses primarily the wages of hired workers.

labor must be viewed against the background of relatively low wage rates in 1939 as compared with rates in many major nonagricultural pursuits. Farm wage rates, which soared during World War I and reached a new high in 1920, were seriously deflated in 1921. Although there was some recovery between 1923 and 1929, the depression of the early 1930's forced rates down to levels almost as low as those of the early 1900's. Nonagricultural wage rates by 1939 had generally risen above predepression levels, but agricultural wages remained appreciably below those of 1929 and lagged considerably behind most nonagricultural rates.

During 1939, approximately four-fifths of all cash wages of farm laborers in the United States were paid on a time basis (by the month, week, or day), and the remaining fifth on a piecework basis. About 42 percent of the amount of cash wages was paid to laborers hired on a daily or weekly basis, and 38 percent to laborers hired on a monthly basis. Although the proportions of the 1939 cash farm wage bill paid by different methods varied considerably among regions, the time basis was the predominant method of payment in every geographic area. Laborers hired by the month received more than half of the wages paid on a time basis in 4 of the geographic divisions, the East and West North Central, Middle Atlantic, and Mountain States. In the other 5 divisions, over half went to laborers hired by the day or week. In the 3 Southern divisions, cotton and tobacco with their sharp but irregular labor demands cause the greatest amount of hiring on a time basis for periods shorter than a month.

Table 1 shows farm wage rates in January 1940 and January 1946 for the United States as a whole and by regions for four types of wage payments reported on a time basis. Daily rates, as reported, are affected by piece rates, because the Bureau of Agricultural Economics requests its reporters to make estimates of the daily earnings of piece-rate workers and to include these estimates of earnings as rates per day, with or without board.

Farm wage rates per day without board rose from an average of $1.55 in January 1940 to $4.40 by January 1946. The rates ranged from a low of $1.03 in January 1940 and $2.79 in January 1946 in the East South Central region to a high of $2.70 in January 1940 and $7.67 in January 1946 in the Pacific area. The increase between January 1940 and January 1946 averaged 184 percent. The greatest advance—222 percent—occurred in the West South Central States, a region which ranked the second lowest in rates paid in January 1940. Other increases ranged from 190 percent in the West North Central States to as low as 106 percent in New England.

During the same period farm wage rates per month without board rose 170 percent, as compared with 184 percent for wages per day without board. The average rate per month in January 1946 was $95.30 as contrasted to $35.27 in January 1940. New England, where the average rate paid is relatively high, again ranked lowest in percentage increase (117 percent). The greatest rise—209 percent—occurred in the West North Central States.

An appreciable portion of the income of farm workers lies outside the market economy. Monetary wage payments frequently are augmented by nonmonetary payments or perquisites. These may include board and lodging, all meals or only certain meals, housing with or without gardening privileges, and fuel, vegetables, milk, tobacco, or other farm products. Practices relating to perquisites show great regional variation. The high proportion of Negroes among farm laborers in the South, for example, has an effect on the nature of the perquisites provided there. The Bureau of Agricultural Economics estimates the value of perquisites in 1944 as 16 percent of total wage payments.

Table 1.—*Changes in Farm Wage Rates, by Region and by Type of Payment, January 1940 to January 1946*[1]

Region	Rate per day			Rate per month		
	January 1940	January 1946	Percent of increase	January 1940	January 1946	Percent of increase
	With board					
United States	$1.22	$3.76	208.2	$25.33	$80.20	216.6
New England	1.73	4.08	135.8	31.75	83.20	162.0
Middle Atlantic	1.61	4.09	154.0	27.46	74.20	170.2
East North Central	1.48	4.06	174.3	25.80	73.70	185.7
West North Central	1.24	4.23	241.1	22.32	77.50	247.2
South Atlantic	.88	2.74	211.4	16.76	47.80	185.2
East South Central	.79	2.21	179.7	15.93	39.80	149.8
West South Central	.93	3.21	245.2	18.35	60.80	231.3
Mountain	1.59	4.69	195.0	33.69	102.00	202.8
Pacific	1.92	6.32	229.2	40.30	137.00	240.0
	Without board					
United States	$1.55	$4.40	183.9	$35.27	$95.30	170.2
New England	2.55	5.25	105.9	56.31	122.00	116.7
Middle Atlantic	2.21	5.01	126.7	43.56	106.00	143.3
East North Central	1.97	4.92	149.7	37.94	100.00	163.6
West North Central	1.77	5.14	190.4	33.33	103.00	209.0
South Atlantic	1.20	3.40	183.3	25.08	65.20	160.0
East South Central	1.03	2.79	170.9	22.99	53.90	134.4
West South Central	1.19	3.83	221.8	27.01	81.80	202.9
Mountain	2.14	5.54	158.9	48.55	134.00	176.0
Pacific	2.70	7.67	184.1	65.78	174.00	164.5

[1] Compiled from data in Farm Labor, issue of Jan. 11, 1946, and Farm Wage Rates, Farm Employment, and Related Data (U. S. Department of Agriculture, Bureau of Agricultural Economics, Washington, 1943, mimeographed).

The statistics of farm wage rates by type of payment include wages with board,[3] but the value of the perquisite is not included in the rate. Workers who receive board, as well as those who do not, may have perquisites other than board. For these reasons, only a very general comparison is possible between different types of wage payments.

Farm wage rates with board increased more during the war than wages without board. The fact that farmers who hired workers on the basis of including board had to increase their money payments more than farmers who hired workers without board appears to indicate a decline in the relative value of board as an element of compensation.

[3] The term "board" is not defined in the questionnaire of the Bureau of Agricultural Economics used by its correspondents in reporting farm wage-rate statistics by type of payment, but it presumably includes lodging when meals are accompanied by lodging. Special surveys of wages and wage rates in agriculture, begun in 1945, give detailed information regarding the proportions of workers, both regular and seasonal, who are furnished with housing, with lodging, and with meals. In May 1945, 47 percent of regular farm workers were furnished with houses, 29 percent with lodging, and 36 percent with 2 or more regular meals. About one-third were furnished with both meals and houses or lodging. See Survey of Wages and Wage Rates in Agriculture, Report No. 7, February 1946 (U. S. Department of Agriculture, Bureau of Agricultural Economics).

The increases in farm wage rates per day with board from January 1940 to January 1946 average 208 percent as compared with an increase of 184 percent in rates per day without board. The increases ranged from a high of 245 percent in the West South Central region to a low of 136 percent in New England. Farm wage rates per day with board rose from an average of $1.22 in January 1940 to $3.76 in January 1946.

Farm wage rates per month with board more than tripled between January 1940 and January 1946, rising 217 percent, from $25.33 to $80.20, and significantly outdistancing the gain in monthly rates without board. The increases ranged from a low of 150 percent in the East South Central area to a high of 247 percent in the West North Central region.

It should be noted that the January level of farm wage rates is not entirely representative of the annual level because of considerable seasonal variations. This was evident, for example, in the year 1939, when only slight changes other than seasonal variations occurred. The levels for that year, for January, and for the other reporting periods (April, July, and October) are shown in table 2.

TABLE 2.—*Quarterly Variations in Farm Wage Rates in the United States, 1939* [1]

Year and month	Farm wage rates				
	Per month—		Per day—		Weighted average (composite) rate per month
	With board	Without board	With board	Without board	
1939:					
Year	$27.39	$35.82	$1.30	$1.56	$30.56
January	24.86	34.92	1.20	1.53	29.03
April	27.08	35.42	1.23	1.53	30.03
July	28.18	36.26	1.36	1.59	31.23
October	28.28	36.13	1.35	1.57	31.13
1940: January	25.33	35.27	1.22	1.55	29.40

[1] Farm Wage Rates, Farm Employment, and Related Data (U. S. Department of Agriculture, Bureau of Agricultural Economics), pp. 4, 40.

The differences in rates as reported for 1939 (from January to October) appear to have been almost entirely seasonal. The January 1940 averages are slightly higher than those for January 1939, indicating a nonseasonal rise which appears to have occurred toward the end of 1939.

Interregional rate differences increased during the war. In January 1940, rates were lowest in the East South Central States and highest in the Pacific States. The percentage increases in all four types of rates by January 1946 were larger in the Pacific States than in the East South Central region, the rise in the rate per day with board, for example, averaging 229 percent in the former and only 180 percent in the latter region. The general (composite) wage rate rose, during the same period, 196 percent in the Pacific area and only 154 percent in the East South Central States. One cause of the greater rise in the Pacific States was the relatively large dependence of farmers in that region on hired farm labor during a period of sharp decline in the labor supply and of rising demand for labor.

Regional differences in average farm wage levels are in part a result of differences in types of agriculture. They also are affected by area differences in the location and development of various industries with varying levels of wages, in the population and labor supply, and in the institutions, traditions, and customs of the various population groups. Differences as significant as those discernible between regions often prevail within an area by size, type, and value of farm and by nature of farm products.[4]

Composite Farm Wage Rates by State and Region

Composite farm wage rates [5] for the country as a whole rose, on the average, 192 percent, or from $29.40 to $85.90, between January 1940 and January 1946. Composite wage rates viewed by States (table 3) show extensive interstate variation in the actual level of farm wages as well as the percentage increases in rates over the period. Rates were lowest in South Carolina and highest in California, with the differences greater in January 1946 than prior to the war. In January 1946, the composite rate paid in South Carolina was $41.90 per month, in contrast to $152.00 in California. Over the 6-year period, farm wage rates in South Carolina rose 166 percent in comparison with a rise of 178 percent in California. Both of these increases were appreciably less than the rise of 192 percent for the country as a whole.

Composite rates in the New England region as a whole, and in the States of Massachusetts and Connecticut in particular, showed the smallest percentage increases over the period. In 1940, these two States were near the top in level of wages paid. The largest increase (311 percent) occurred in North Dakota. In January 1940, the North Dakota average of $21.00 was significantly below the national average of $29.40, but wartime increases raised the average to $86.40, slightly above the national average of $85.90.

Changes in Real Wages

There is no satisfactory measure of the change in real wages of hired farm workers. The index of consumers' prices as constructed by the Bureau of Labor Statistics relates primarily to prices paid by moderate-income families in large cities; and the index of prices paid for items used in living as constructed by the Bureau of Agricultural Economics applies primarily to the families of farm operators and does not include rents and services. Both indexes have reflected only in part the wartime effects of changes in quality and availability of goods.

It is apparent, however, that the increase in the composite farm wage rate over the war period was markedly greater than the rise in prices. A rough approximation of the rise in the real farm wage rate from 1939 to 1945 (the wage-rate index adjusted by the index of living costs of farm families) is 85 percent. In this connection, however,

[4] See Wages of Agricultural Labor in the United States, by Louis J. Ducoff (U. S. Department of Agriculture, Bureau of Agricultural Economics, 1945.) This study is the major source of general background data used elsewhere in this article.

[5] Weighted average of monthly and daily farm wage rates with and without board. The daily rates were converted to a monthly basis.

Composite farm wage rates are an approximate but significant measure of the trend of farm wages, but because of the extreme diversity of the wage rates that enter into the composite and the exclusion of the value of perquisites, this rate has limited validity, according to the Bureau of Agricultural Economics, as a measure of actual wage levels. The constant employment weights used in assigning relative importance to each of the four types of payments for deriving the composite rate are those of 1925 and they therefore do not reflect any shifts in the relative importance of the different types of payment since that date. In the absence of employment data for States by types of payment, regional weights have been used, although considerable differences no doubt exist among the several States of a given regional division. In addition, piece rates are much less adequately represented than are time rates.

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TABLE 3.—*Changes in Composite Farm Wage Rates, by State and Region, January 1940 to January 1946* [1]

State and region	Composite wage rate [2]		
	January 1940	January 1946	Percent of increase
United States	$29.40	$85.90	192.2
New England	45.80	103.00	124.9
Maine	39.50	104.00	163.3
New Hampshire	46.75	111.00	137.4
Vermont	39.50	95.30	141.3
Massachusetts	49.25	102.00	107.1
Rhode Island	52.25	125.00	139.2
Connecticut	50.00	106.00	112.0
Middle Atlantic	35.60	89.40	151.1
New York	35.25	96.40	173.5
New Jersey	40.25	103.00	155.9
Pennsylvania	34.25	77.90	127.4
East North Central	31.70	85.80	170.7
Ohio	30.50	76.60	151.1
Indiana	32.50	78.90	142.8
Illinois	35.00	92.50	164.3
Michigan	31.75	87.80	176.5
Wisconsin	29.00	89.10	207.2
Minnesota	25.00	83.70	234.8
West North Central	25.80	85.60	231.8
Iowa	29.75	95.00	219.3
Missouri	23.00	67.50	193.5
North Dakota	21.00	86.40	311.4
South Dakota	24.50	93.60	282.0
Nebraska	25.25	95.90	279.8
Kansas	26.25	89.50	241.0
South Atlantic	21.60	59.80	176.9
Delaware	32.50	81.00	149.2
Maryland	32.75	83.50	155.0
South Atlantic—Con.			
Virginia	$26.00	$66.00	153.8
West Virginia	26.75	59.80	123.6
North Carolina	22.00	60.70	175.9
South Carolina	15.75	41.90	166.0
Georgia	16.00	46.20	188.8
Florida	21.50	72.10	235.3
East South Central	19.80	50.30	154.0
Kentucky	24.25	58.50	141.2
Tennessee	19.75	48.40	145.1
Alabama	16.75	45.80	173.4
Mississippi	17.50	49.20	181.1
West South Central	23.20	73.90	218.5
Arkansas	19.25	58.60	204.4
Louisiana	20.00	51.30	156.5
Oklahoma	25.75	84.70	228.9
Texas	24.75	81.90	230.9
Mountain	36.00	105.00	191.7
Montana	36.50	113.00	209.6
Idaho	36.25	133.00	266.9
Wyoming	35.50	109.00	207.0
Colorado	30.75	98.00	218.7
New Mexico	28.50	74.30	160.7
Arizona	37.00	107.00	189.2
Utah	43.75	111.00	153.7
Nevada	42.25	110.00	160.4
Pacific	50.60	150.00	196.4
Washington	41.25	144.00	249.1
Oregon	40.75	138.00	238.7
California	54.75	152.00	177.6

[1] Compiled from data in Farm Labor, issue of May 1946, and Farm Wage Rates, Farm Employment, and Related Data (U. S. Department of Agriculture, Bureau of Agricultural Economics. Washington, 1943, mimeographed).
[2] Weighted average of monthly and daily farm wage rates with and without board. The daily rates were converted to a monthly basis.

it is quite important to note the serious lag in 1939 in the real as well as in the money wages of hired farm workers. The average output of farm labor as a whole rose almost 50 percent from the parity base period (1910–14)[6] to 1939; but the estimated real wage rate of hired farm workers in 1939 was approximately the same as from 1910 to 1914. During the same period, as will be indicated later, the wages of nonfarm workers far outdistanced those of hired farm workers.

Wages of Piece-Rate Workers

In 1939, approximately 20 percent of all cash wages paid to farm laborers in the United States were paid on a piecework basis, including contract work. The importance of piece rates varied significantly between regions. In the two northeastern divisions, wages to laborers hired on a piecework or contract basis were less than 10 percent of all wages paid, whereas in the West South Central, Mountain, and Pacific divisions, this type of payment accounted for about 30 percent of the cash wage bill. Cotton picking in the South (usually paid for by the hundredweight), sugar-beet work in the Mountain, Pacific, and other States (customarily paid on a per-acre or per-ton basis to con-

[6] The parity policy as embodied in acts of Congress is designed to maintain farm prices and the per capita net income of farmers from farming on an approximate "parity" with nonfarm prices and income in terms of the 1910–14 relationships.

tract labor), and vegetable, fruit, and other specialized farming operations on the West Coast, account for the higher proportion of the wage bill going for piecework or contract labor in these regions.

Comprehensive data on piece rates are compiled regularly for cotton picking and minimum rates are issued each year for the growing and harvesting of sugar beets. Increases in cotton-picking rates between October 1939 and October 1945 were greater (with the exception of five less-important cotton-growing States) than advances in the general or composite farm wage rate in the same States (table 4). Sugar-beet rates under the Sugar Act of 1937 rose much less than the general rate, but the rates as reported are the minimum as determined under the act, and labor shortages after 1939 have caused some growers to pay rates above the minimum. Sugar-beet wages will be discussed in part 2, in connection with wage controls.

TABLE 4.—*Comparison of Average Rates for Picking Seed Cotton With Composite Farm Wage Rates in Principal Cotton-Producing States, 1939 and 1945* [1]

State	Average wage rate for picking 100 pounds of seed cotton		Composite farm wage rate [2]		Percent of increase in—	
	1939	1945	October 1939	October 1945	Cotton-picking rate	Composite farm wage rate
Missouri	$0.75	$2.05	$25.25	$69.50	173	175
Virginia	.60	2.20	27.00	63.60	267	136
North Carolina	.60	2.30	22.25	60.00	283	170
South Carolina	.50	1.75	15.75	41.30	250	162
Georgia	.50	1.70	16.00	45.40	240	184
Florida	.60	1.75	23.00	72.10	192	213
Tennessee	.60	1.95	20.75	50.20	225	142
Alabama	.50	1.70	17.00	46.90	240	176
Mississippi	.60	1.95	17.75	48.20	225	172
Arkansas	.60	2.00	20.25	59.30	233	193
Louisiana	.55	1.80	20.25	52.20	227	158
Oklahoma	.65	1.90	27.00	89.90	192	233
Texas	.55	1.95	26.00	87.20	255	235
New Mexico	.65	1.95	31.75	82.60	200	160
Arizona	.90	2.30	39.25	107.00	156	173
California	.85	2.25	56.00	156.00	165	179

[1] Compiled from data in Farm Labor, issues of Nov. 13, 1945, and Feb. 12, 1946, and Farm Wage Rates, Farm Employment, and Related Data (U. S. Department of Agriculture, Bureau of Agricultural Economics, Washington, 1943, mimeographed).
[2] Figures for October for comparison with rates in cotton-picking season

Correspondents who report wage data for the quarterly series of wages per day and per month are directed to include in their estimates of wages per day the "average daily earnings of piece workers." It is recognized by the Department of Agriculture that the results which can be achieved with available statistical resources may fail to reflect adequately the rates of pieceworkers. In so far, however, as the rates per day were influenced by the inclusion of estimated daily earnings of piece-rate workers, it appears that the general rise in piece rates was no greater than the general rise in time rates; the composite rate rose 183 percent between 1939 and 1945, and the rate per day without board (including a large part of equivalent daily earnings of piece-rate workers) advanced only 178 percent. Rates per month and per day with board both rose more than the corresponding rates without board, indicating not a relative rise in piece rates, but rather in cash payments by farmers who also supplied perquisites.

Farm Wages in Relation to Production Expenses of Farm Operators

The total cash wages and perquisites of hired farm labor as a share of the total production expenses of farm operators rose from 17 percent in 1935–39 to 20 percent in 1945 (table 5). The wage bill advanced 138 percent; other production costs, 95 percent; and total production costs, 102 percent.

TABLE 5.—*Farm Wages as Production Expenses, 1910–14, 1935–39, and 1944* [1]

Item	Amount (in millions)			Percentage distribution of—					
				All production expenses			Wages		
	Average, 1910–14	Average, 1935–39	1945	Average, 1910–14	Average, 1935–39	1945	Average, 1910–14	Average, 1935–39	1945
Total production expenses	$3,858	$5,576	$11,271	100	100	100			
Total wage bill	783	928	5,210	20	17	20	100	100	100
Cash wages	550	722	1,861	14	13	17	70	78	84
To persons living on farms	369	491	1,265				47	53	57
To persons not living on farms	181	231	596				23	25	27
Perquisites	233	206	349	6	4	3	30	22	16
To persons living on farms	192	170	287				25	18	13
To persons not living on farms	41	36	62				5	4	3
Other production expenses	3,075	4,648	9,061	80	83	80			

[1] Net Income and parity Report: 1943, and Farm Income Situation, issue of June 1946, Net Farm Income and Parity Report, United States, 1945 (U. S. Department of Agriculture, Bureau of Agricultural Economics, Washington).

The wartime ratio of farm wages to total production expenses approximates the ratio that prevailed in the parity base period of 1910–14. During the intervening years, however, wages as a proportion of production expenses declined, falling to 13 percent in the depression year 1932, before an upturn occurred. Wage costs have thus comprised a relatively variable proportion of total production expenses and have tended to contract in times of depression relatively more than other production expenses and to expand at a greater rate in times of prosperity.

The declining relative importance of perquisities as a component of the wages of hired farm workers, suggested in an earlier section, appears to be further substantiated by a study of the farm wage bill. Cash wages to hired farm labor rose 158 percent over the war period in contrast to a rise of only 69 percent in perquisites. Cash wages as a proportion of the total wage bill amounted to 78 percent in 1935–39 but to 84 percent in 1945. This trend was a continuation of the earlier movement: cash wages from 1910 to 1914 averaged only 70 percent of total wages. In terms of the declining importance of perquisites, these noncash wages fell from 30 percent of the total in the parity base period to 22 percent in the years 1935–39 and declined further to 16 percent in 1945.

Part 2.—Comparative Wages and Wage Regulation

Average net income per farm family worker (exclusive of income from nonagricultural sources) increased from $572 in 1935–39 to $1,712 in 1945, a rise of 199 percent, as compared with an advance of 188 percent, from $362 to $1,044, in the average wage of hired farm workers. The estimated per capita net income of persons living on farms (from agriculture and Government payments) increased 232 percent between 1935–39 and 1945, in contrast to a rise of 107 percent in the per capita income of persons not living on farms. Percentage increases in the wages of workers in major nonfarm employments were much smaller than the advance in the general farm wage rate. These converging trends marked a sharp reversal of the diverging trends of farm and nonfarm wages between the First and Second World Wars.

Wage controls in agriculture over the war period were of three types: (1) Continuance of minimum-wage determinations in the sugar-beet and sugar-cane industries under the Sugar Act of 1937 as a condition for payments to growers of subsidies; (2) regulation of farm wage rates under the wartime stabilization program; and (3) the ascertaining of prevailing farm rates for use in fixing the wages of foreign and interstate farm workers. Wage determinations under the Sugar Act are primarily allocations to workers of a "share" of the benefits of the act in the form of a customary percentage of gross returns per ton of beets, in contrast to generally accepted minimum wage standards as the basis of minimum wage determinations in other employments. The wartime increases in sugar-beet wage determinations were much smaller than the increases in general farm wages in the sugar-beet areas. The setting of specific wage ceilings for seasonal workers was the most widely used method of wage stabilization in agriculture. The determination of prevailing wages to be paid foreign and interstate workers was not concerned with establishing wage levels and therefore differed from the fixing of ceilings under the wage-stabilization program.

With the return to peacetime production, a basic national problem is the avoidance of the conditions which, before the war, tended to depress the wages and living standards of farm workers. The realization of adequate farm wages and income for farmers depends largely on the maintenance of high levels of employment and income in the nonagricultural sector of our economy.

Income of Hired Workers and Family Workers

The income of farm family workers including farm operators, increased more rapidly over the war period than the wages of hired farm workers.[1] The trends between 1910–14 (the parity base period) and 1935–39 also favored farm family workers.

Average net income per family worker (from current farm operations and Government payments, but excluding income from nonagri-

[1] Farm Income Situation, June 1946, Net Farm Income—Parity Report, United States, 1945 (U. S. Department of Agriculture, Bureau of Agricultural Economics). Net income as here used excludes inventory adjustments.

cultural sources) rose from $572 in 1935–39 to $1,712 in 1945, an increase of 199 percent. The average wage, including perquisites, per hired farm worker increased 188 percent, from $362 to $1,044. In 1910–14, the wage per hired worker was 68 percent as large as the income from farming per family worker; in 1935–39, it was only 63 percent as large; and in 1945, there was a further decline to 61 percent. It should be noted that although the average wage fell sharply during the early thirties, the average net income of family workers declined even more, the difference between the averages then being relatively small. In depression years, however, subsistence farming cushioned the decline of income for farm operators and their families.

The Bureau of Agricultural Economics made a special study of 14 groups of typical family-operated farms, including data on hourly earnings.[2] Estimates derived from this study indicate that the hourly returns (excluding returns for land and capital) to operator and family labor from 1935–39 to 1945 advanced more than the estimated wages per hour of hired workers in all but 2 of the 14 types of farms. The exceptions were cotton farms of the Southern Plains and the Black Prairie regions. The smallest increase in hourly returns to operator and family labor was 131 percent, in the Mississippi Delta; the smallest increase to hired labor was 92 percent, in the same region. The largest increase (twelvefold) in hourly returns to operator and family labor was on the winter wheat farms of the Southern Plains region. This advance is explained in part by exceptionally small returns before World War II (1935 to 1939), because of poor yields and low prices in contrast to better yields and rising prices during the war. Wages are naturally more stable than returns to operator and family labor, which are affected more directly by fluctuations in prices and volume of production.

Farm and Nonfarm Wages and Income

Per capita farm income, including wages, made greater gains over the war period than did the average income of the nonfarm population. Total farm income as a percentage of total national income increased over the period, from 8.2 percent in 1935–39 to 9.1 percent in 1945, and the farm population as a percentage of total civilian population dropped from 24 to 18 percent.

The estimated per capita income of persons living on farms (from agriculture and Government payments) was 331 percent higher in 1945 than during the so-called parity base period of 1910–14; the per capita income of persons not living on farms was 166 percent higher.[3] The parity income ratio (as distinguished from the parity price ratio) was thus 162.[4] Most of the rise of the index of per capita farm income above that of nonfarm income occurred during the war years, the 1935–39 ratio being only 101.

Comparisons of farm wage trends from the parity base period with wage trends in nonfarm employments indicate a great lag in farm

[2] Typical Family Operated Farms, 1930–45 Adjustments, Costs and Returns, U. S. Department of Agriculture, Bureau of Agricultural Economics (Washington), April 1946.

[3] The U. S. Department of Agriculture has experienced difficulty in allocating income from nonagricultural sources going to persons on farms. The figures above therefore show the changes in the per capita net income from agricultural sources only of persons on farms. Estimates for recent years are available and indicate that for 1935–39 income from nonfarm sources formed somewhat more than a fourth of the total income of persons on farms.

[4] The parity formula is public policy and as such is reflected in available statistics used in this article, but the adequacy of the formula as an embodiment of equitable price and income relationship is not a part of the present discussion.

wages prior to the war. During the war period, however, percentage increases were much larger in farm than in nonfarm wages.

Between July 1939 and July 1945, the general farm wage rate rose 187 percent, and the rate per day without board increased 182 percent. Increases in important nonfarm employments were much smaller: 65 percent in the average hourly earnings of factory workers; 63 percent in the average of railroad section men and extra gang men; 93 percent in the rate paid to common labor in road building; and 26 percent in the union hourly rate of laborers and helpers in the building trades.

The general farm wage rate in July 1939 was only 26 percent above the parity base period, and the rate per day without board was only 12 percent higher. In contrast, average hourly earnings rose 206 percent in manufacturing and 172 percent in railroad section work; the rate of common laborers in road building rose 115 percent; and the union hourly rate of helpers and laborers in building trades rose 221 percent.[5]

Thus, the lag in farm wages from the parity base period to 1939 was so great that it was not entirely overcome by the relatively large wartime increases.[6]

Wage Controls in Agriculture

MINIMUM WAGES IN SUGAR-BEET FARMING

Existing wage controls in agriculture are of three types: (1) Wartime control of farm wages under the wage-stabilization program; (2) determination of prevailing wage rates for foreign and interstate workers recruited and placed in wartime farm work by the War Food Administration; and (3) setting of wage rates authorized by the Sugar Act of 1937.

The sugar-beet industry makes wide use of contract workers, chiefly of Mexican or other Spanish-American extraction. These workers are chronically faced with underemployment, low incomes, and the necessity of migrating long distances in order to obtain a limited amount of work. The Sugar Act requires that all producers of sugar beets and sugarcane [7] who wish to qualify for Government payments must, among other conditions, pay their employees in full at rates not less than those that may be determined by the Secretary of Agriculture to be fair and reasonable after investigation and due notice and opportunity for public hearing. The term "fair and reasonable" was related primarily, by administrative practice, to the benefits of the act, the main consideration being the allocation to wages of a customary "share" or percentage of the gross returns per acre or per ton of beets. The changes in minimum wages as made by the determinations have been allied closely to changes in gross returns per acre or per ton of beets, although other factors, particularly changes in cost of production and in cost of living, are given consideration.

[5] The base periods used for computing the changes in nonfarm wages were slightly different in some cases because of lack of data for the entire period from 1910 to 1914, but the trends are not significantly affected.

[6] Comparisons of changes in farm and nonfarm wages are restricted to percentage changes because differences in types of wage data prevent comparisons of actual wage levels in dollars and cents. The above percentage comparisons are not to be viewed as implying the assumption that equitable wage relationships existed either in 1939 or in the parity base period.

[7] Sugarcane is not grown extensively in the continental United States except in Louisiana and Florida. This discussion, therefore, will be limited to sugar-beet growing in the United States. The Sugar Act also applies to Puerto Rico and Hawaii.

Minimum wage rates established under the Sugar Act, as averaged for 18 States, declined slightly between 1939 and 1941 but rose substantially thereafter, as shown in the accompanying table. The total wage per acre paid for the combined operations (blocking and thinning, hoeing, topping, loading) rose from $22.24 in 1941 to $35.13 in 1945. The minimum rate per acre for 1946 averaged $41.16. This increase over 1945, resulting from increased support payments to growers, was the first since 1943, except for minor adjustments.

Minimum Wage Rates per Acre in Sugar-Beet Industry, as Averaged for 18 States, 1939–46 [1]

Year	Type of piece work									
	Blocking and thinning		First hoeing		Subsequent hoeings		Topping or topping and loading		Total wage per acre	
	Rate	Index	Rate	Index	Rate	Index	Rate	Index	Rate	Index
1939	$8.05	100.0	$2.25	100.0	$1.37	100.0	$10.81	100.0	$22.48	100.0
1940	8.05	100.0	2.25	100.0	1.37	100.0	10.81	100.0	22.48	100.0
1941	7.81	97.0	2.25	100.0	1.37	100.0	10.81	100.0	22.24	98.9
1942	9.30	115.5	2.75	122.2	1.87	136.5	13.94	129.0	27.86	123.9
1943	11.80	146.6	3.62	160.9	2.62	191.2	16.64	153.9	34.68	154.3
1944	11.80	146.6	3.62	160.9	2.62	191.2	16.64	153.9	34.68	154.3
1945	12.00	149.1	3.70	164.4	2.70	197.1	16.73	154.8	35.13	156.3
1946	14.04	174.4	3.98	176.9	3.09	225.5	20.05	185.5	41.16	183.1

[1] U. S. Department of Agriculture, Production and Marketing Administration, Sugar Branch. The averages were computed from rates established under the Sugar Act of 1937.

The 56-percent increase in minimum sugar-beet rates between 1939 and 1945 was significantly less than the rise either in the general farm wage rates in the chief sugar-beet regions or in the rates for picking cotton, an important type of piece work discussed in Part 1. During the war, however, labor shortages and the rapid rise in general wage rates caused some sugar-beet growers to pay rates above the stated minimum.

The following increases in the general wage rate occurred in the four geographic divisions containing the 18 sugar-beet-growing States between July 1939 and July 1945: East North Central States, 144 percent; West North Central, 200 percent; Mountain, 188 percent; and Pacific, 205 percent. Wage increases between 1939 and 1945 for picking cotton by the hundredweight in 16 of the major cotton-producing States ranged from 156 to 283 percent. In California, the only State that produces a sizable amount of both cotton and sugar beets, the piece rate for cotton picking rose 165 percent.

Piece rates are of more significance in a wage study when translated into hourly or daily earnings. In the early wage determinations under the Sugar Act, hourly rates were established for only a few States. At present, the wage orders include both hourly and piece rates for some types of work in all States, but hourly rates are paid to only a small proportion of total workers in the sugar-beet fields. Hourly rates are most common in California.

A study made by the Bureau of Agricultural Economics in October 1945 of the earnings of 529 workers harvesting sugar beets in the Saginaw-Bay City area of Michigan shows cash earnings averaging 65 cents an hour based on piece rates per acre.[8] This figure of actual

[8] Farm Labor, December 14, 1945, U. S. Department of Agriculture, Bureau of Agricultural Economics.

hourly earnings is slightly higher than the 60-cent minimum hourly rate for beet harvesting in Michigan as required by the 1945 wage determinations. It approximates the hourly rate fixed as the minimum for harvesting in Washington and California in 1945 and is identical with the national average for 1946. Given below are hourly rates for specific operations for the States of California and Washington, 1939 to 1946; piece rates, however, are predominant for all operations.

	Rates per hour in California and Washington for—		
	Thinning	*Hoeing*	*Harvesting*
1939	$0.388	$0.337	$0.437
1940	.388	.337	.437
1941	.388	.337	.437
1942	.438	.388	.538
1943	.538	.488	.638
1944	.538	.488	.638
1945	.538	.538	.638
1946	.600	.600	[1] .650

[1] The same rate applies to all 18 States for 1946.

From 1939 to 1945, the hourly rates in sugar-beet farming in Washington and California increased 39 percent for thinning, 46 percent for harvesting, and 60 percent for hoeing. Composite farm rates rose 251 percent in Washington and 179 percent in California over the same period. Translated into terms of an estimated workday of 9.6 hours,[9] daily earnings of employees paid by the hour at the required rate in 1945 equaled $5.16 for thinning and hoeing and $6.12 for harvesting. These figures were significantly below the rate of $8.40 per day without board paid in Washington and $7.80 paid in California in July 1945, and somewhat below the rates per day with board.

When interpreted in terms of the duration of employment, the earnings of sugar-beet workers are exceptionally low. Although the sugar-beet season extends over a period of 6 months or more, it was estimated in 1940 that the actual number of days of work obtained from sugar beets does not, on the average, exceed 50 days. Except in California, the most common type of contract labor in sugar-beet growing is the family system. To the extent, therefore, that more than one member of a family was employed in sugar-beet operations the earnings of a family were augmented. The widespread use of child labor in order to raise the family earnings was the major basis for the child-labor restrictions of the Sugar Act, which forbids the employment of children under 14 years of age and limits their employment between the ages of 14 to 16 years to 8 hours per day.

Wartime demand for labor probably enabled many sugar-beet workers to increase their earnings from other types of farm and nonfarm work. From the limited information available it appears that supplemental earnings were generally small during the decade preceding the second World War.[10] The fact that employment in sugar factories and in other industries is generally slack in the winter

[9] Average workday reported in 1943 from data received by the U. S. Department of Agriculture, Production and Marketing Administration, Sugar Branch.

[10] See Wages, Employment Conditions, and Welfare of Sugar Beet Laborers, by Elizabeth S. Johnson, in Monthly Labor Review, February 1938 (reprinted as Serial No. R. 703); and Changes in Technology and Labor Requirements in Crop Production: Sugar Beets, Works Progress Administration, National Research Project Report No. A-1, August 1937 (pp. 42-44).

months, when sugar-beet workers are seeking work, limits their possibilities for other types of employment.

The Department of Agriculture, in fixing minimum rates (which are normally close approximations of actual rates), gives only minor consideration, as previously stated, to such factors as are taken into account in minimum-wage determinations in other employments. In these employments, certain minimum standards of wages, determined independently of gross returns or other criteria of the economic status of employers, are usually the overriding considerations.

An economic basis for increased earnings of sugar-beet workers beyond the increases required by the customary "share" of gross returns per acre or per ton appears to be the marked increase in average output. Noteworthy recent causes of rising productivity are the extension of cross blocking, the improvement of machinery, and more especially the segmentation of seed (reducing the amount of seed required and particularly the amount of thinning).

THE WARTIME FARM WAGE STABILIZATION PROGRAM

The competitive bidding for available farm workers as the supply of workers decreased and as farm income increased resulted late in 1942 in the extension, in modified form, of wartime wage controls to agriculture. The exemption of agricultural labor from the earlier general wage and salary stabilization order was stated in the regulations of the Director of Economic Stabilization to be based on the following considerations: "That the general level of salaries and wages for agricultural labor is substandard, that a wide disparity now exists between salaries and wages paid labor in agriculture and salaries and wages paid labor in other essential war industries, and that the retention and recruitment of agricultural labor is of prime necessity in supplying the United Nations with needed foods and fibers." It may also be noted that consideration had to be given to the practical difficulties of administering controls in the field of farm wages. These arose largely from the extremely diverse wage practices and conditions of employment, from the relative lack of accounting procedures and records in the handling of farm wage payments, and from the prevalence of small farms and relatively individualistic types of employers.

The regulations of the Economic Stabilization Director were amended on November 30, 1942, to give the Secretary of Agriculture control of wage stabilization for agricultural labor. These functions were later transferred to the War Food Administration but were returned to the Secretary in June 1945. The wage-stabilization program for agriculture consisted of two parts: Controls of a general character covering farm labor in all parts of the United States, and regulations affecting specific crop operations.

Although primarily intended to restrain the rise in wages, the new policy afforded a measure of protection of existing wage levels from downward pressures. Under the "General Regulations" issued by the War Food Administration on January 17, 1944, and later amendments, no employer could decrease wages or salaries paid to agricultural labor below the highest salary or wage paid for such work between January 1 and September 15, 1942, without the approval of the War Food Administrator. Farm wage rates, however, could be increased up to the level of $200 per month without the approval of the Administrator unless otherwise determined by him in the case of particular crops, areas, or classes of employers. If an employer paid rates higher than $200 a month for seasonal work in the year prior to December 9, 1943, he could continue to pay the same rate for the same work under similar conditions. Approval for rates of pay above $200 per month might be granted on grounds similar to those laid down by the National War Labor Board for increases in wages and salaries under its jurisdiction. The Commissioner of Internal Revenue was given jurisdiction over all salaries in excess of $5,000.

Initially the farm-wage program was guided by an annual earnings standard of $2,400 a year. Amendments to the original order (1) substituted a rate concept for the previous earnings-per-year concept, (2) set $200 a month or its equivalent in shorter time units or in piece rates as the level at which general control of farm wages should begin, and (3) made the general wage regulation applicable especially through specific wage ceilings to seasonal workers as well as to regular farm workers.[11]

The application of wage controls to seasonal workers appears to have been the most important phase of the wage-stabilization program for agriculture. Wage ceilings were most widely used in areas paying relatively high rates to migratory workers for seasonal work. Under the regulations, the Administrator could establish maximum rates in specified areas for particular crop operations. An employer could not pay more than these rates without obtaining approval. Congress provided that specific wage ceilings could be established during the fiscal year ended June 30, 1945, only upon request from the majority of producers of a commodity in an affected area. That provision was changed to the effect that after July 1, 1945, ceilings could be established upon requests of majorities of producers participating in meetings or referendums held for such purposes.

Up to September 1, 1945, orders for 69 specific wage ceilings had been issued. The first ceiling was established on April 12, 1943, for asparagus harvest labor in 5 California counties. After that date maximum rates were set up for performing specific crop operations in parts of Maine, South Dakota, Delaware, Florida, Texas, Idaho, Arizona, Washington, Oregon, and California. Generally the specific ceilings set for special crop areas exceeded 85 cents an hour (the equivalent of $200 a month, assuming 26 days at 9 hours per day). It cannot, however, be assumed that earnings averaged as much as $200, for the ceilings were maximun rates, and the work is highly seasonal.

State farm wage boards played an important part in the wage-ceiling program for specific crops. Regulations authorized the Director of the WFA Office of Labor to establish boards for the various States. The wage boards hold public hearings to obtain information and they recommend wage ceilings in a given area for specified crops, classes of employees, or farming operations. Appeals for relief from hardships resulting from wage ceilings are heard by the boards. They may also hold hearings to determine whether specific wage ceilings have been violated.

[11] Wages of Agricultural Labor in the United States, by Louis J, Ducoff, U. S. Department of Agriculture, Bureau of Agricultural Economics, July 1945.

DETERMINATION OF PREVAILING WAGE RATES FOR FOREIGN AND INTERSTATE FARM WORKERS

Another type of wartime regulation of farm wages was the determination of prevailing farm wage rates to be paid imported foreign workers and laborers transported interstate by the War Food Administration for agricultural work. Under the terms of the agreements negotiated by the United States Government with the Governments of Mexico, Jamaica, the Bahamas, and Newfoundland, workers brought in from these countries for wartime work were to be paid "prevailing wage rates" in the crops and areas involved. The foreign agreements also contained minimum-wage clauses. The payment of prevailing wages was required for farm workers transported by the WFA from one State to another and for prisoners of war, soldiers assigned in units by the War Department, [12] and Japanese-American evacuees when engaged in farm work.

In July 1945, about 78,000 foreign workers, 56,000 of whom were Mexicans, were employed on farms in the United States. The number of domestic farm workers transported interstate under the program averaged about 11,000 annually after 1943.

At the outset of the war when it became apparent that the normal sources of farm labor were inadequate to meet farm-labor needs, the United States Employment Service was authorized to recruit interstate and foreign farm labor. This task was carried out in cooperation with the Farm Security Administration up until Congress made its first special appropriation on April 29, 1943, for the recruitment, transportation, and placement of interstate and foreign labor. To administer this program the Office of Labor of the WFA was established in July 1943.

The Appropriation Acts of April 29, 1943, and February 14, 1944, provide that—

> No part of the funds appropriated in this title, or heretofore appropriated or made available to any department or agency of the Government for the recruiting, transportation, or placement of agricultural workers, shall be used directly or indirectly to fix, regulate, or impose minimum wages or housing standards, to regulate hours of work, or to impose or enforce collective-bargaining requirements or union membership, with respect to any agricultural labor, except with respect to workers imported into the United States from a foreign country and, then only to the extent required to comply with agreements with the Government of such foreign country: *Provided*, That nothing herein contained shall prevent the expenditures of such funds in connection with the negotiation of agreements with employers of agricultural workers which may provide that prevailing wage rates shall be paid for particular crops and areas involved and that shelter shall be provided for such workers.

The War Food Administration was vested with the responsibility for prescribing the procedures by which prevailing farm wage rates were determined for the crops and areas where such labor was used. Although this involved a form of governmental supervision over farm wage rates, it differed basically from the type of regulation used under the stabilization program. The issuance of findings with respect to prevailing wage rates was not concerned with the setting of rates. Indirectly, however, the program may have affected rates as a result of the difficulty of determining in advance the local needs for labor and

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[12] Payment by farmers for the work of war prisoners and assigned soldiers was made direct to the United States Treasury.

of avoiding in some areas an inflow of workers in excess of needs, with a depressing effect on wages.

The State Extension Services, which were vested with certain responsibilities in the placement of interstate and foreign workers, were required to assist in any determination of prevailing wage rates for farm work. The procedures prescribed by the War Food Administration and the Federal Extension Services for ascertaining prevailing rates included the setting up of county farm wage boards. A county board is required to hold a public hearing, and is authorized to make such further investigation as it deems appropriate, in order to make findings and recommendations. These are transmitted by the county board to the State Director of Extension, who, in turn, issues the final determination as to prevailing wage rates.

Postwar Problems of Farm Wages and Income

It is evident from comparisons given above that agriculture has shared fully in the prosperity resulting from an economy operating at or near capacity. Agricultural wages and the income of farmers attained record peaks during the war. When deferred demand is met, however, and when the devastated countries are able to return to their normal peacetime farm production, agriculture in this country may again be faced with problems resembling those of prewar years. No substantial gains were made in the real wage income of farm workers in the three decades preceding 1940. The income of industrial workers, on the other hand, rose progressively. A basic national problem is the avoidance, with the return to peacetime production, of the conditions which seriously depressed the wages and living standards of farm workers.

The level of wages of hired farm workers, who comprise about one-fourth of total farm employment, is closely related to the level of income received by the farmer. National and regional figures of farm income and farm wages indicate that the two tend to change in the same direction. This is broadly true in spite of the fact that a relatively few farm operators employ most of the hired farm workers and pay most of the farm wage bill. According to the Bureau of Agricultural Economics, nearly 90 percent of the Nation's farm wage bill in 1939 was paid on farms which individually had a value of products of more than $1,000 and which accounted for 79 percent of all agricultural production, although these farms made up only about 35 percent of all farms. The farms in the highest value class (the 1 percent which had a value of production of $10,000 or more per farm) accounted for more than 30 percent of the entire cash farm wage bill. About 54 percent of the 1939 cash farm wage bill was paid on only 266,000 farms in the groups with value of production of over $4,000, or on only 4.5 percent of all farms in the country. This concentration appears to have increased during the war.[13]

Most farmers do little or no hiring of labor and have predominantly small incomes, many of them living mainly by subsistence farming as distinguished from farming for the market. Neverthless, even the farmers who do no hiring exert a vital influence on farm wages, espe-

[13] For a study of the concentration of hired workers on large farms as early as 1935, see Distribution of Hired Farm Laborers in the United States, by Julius T. Wendzel, in Monthly Labor Review, September 1937 (reprinted as Serial No. R. 625).

cially in times of declining business. These farmers or members of their families frequently in such periods look for work in competition with wage earners. Moreover, in times of business downturn, even the relatively small production thrown into the market from farms operated largely on a subsistence basis tends to depress farm prices and income and, indirectly, farm wages.

In turn, both farm wages and the income of farmers are dependent upon the level at which the rest of the economy is functioning. The maintenance of high levels of wages, income, and employment in the nonagricultural sectors of the economy means a continued high demand for products of the farm, since the greatest demand for agricultural products is from the masses of nonfarm employees. Moreover, pressure on farm jobs is relieved to the extent that employment and wages are adequate for nonfarm workers. One of the major factors in depressing farm prices, wages, and income after 1929 was the mass unemployment and sharp decline in earnings and buying power of nonfarm workers. These workers were unable to buy needed farm products; and in addition, many of them sought refuge on farms, thus increasing the downward pressure on farm prices and wages. The net movement of population from farms from 1920 to 1929 was 5,960,000, an average of 596,000 per year. By 1932 the net movement had been reversed; 266,000 more persons moved to farms than from them. The attainment and maintenance of a desirable balance between farm population and the resources and market opportunities of agriculture requires more than high levels of nonfarm employment and wages; but the interdependence of farm and nonfarm workers becomes increasingly important with the progressive industrialization of the country and the growing dependence of farmers on domestic markets.

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