

UNITED STATES DEPARTMENT OF LABOR

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BUREAU OF LABOR STATISTICS

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Income From Wages and Salaries in the Postwar Period

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Bulletin No. 845

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Letter of Transmittal

UNITED STATES DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, D. C., September 21, 1945.

The SECRETARY OF LABOR:

I have the honor to transmit a report on income from wages and salaries in the postwar period. This report was prepared by Robert J. Myers and N. Arnols Tolles. Margaret R. Cavallo supervised the tabulations and assisted in the preparation of the estimates.

A. F. HINRICH, *Acting Commissioner.*

HON. L. B. SCHWELLENBACH,
Secretary of Labor.



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Income From Wages and Salaries in the Postwar Period

Summary

TOTAL payments for wages and salaries, exclusive of military pay, more than doubled from 1939 to 1944, and accounted for a major part of the increase in national income. In 1944 these payments reached their highest annual level of 98 billion dollars. Several of the forces that contributed to the wartime rise, however, can be expected to reverse themselves, now that the war is over, and will tend to reduce the volume of wage-salary income. Thus, by 1947, unless counterbalanced by other changes, the reduction of the workweek, the loss of shift premiums in the leading war industries, and the transfer of workers from war production to lower-paid civilian production may be expected to reduce wage-salary income by about 16.7 billion dollars. This reduction, however, may be partially offset by increased employment following demobilization of the armed forces. If, in addition to full employment, wage rates can be increased, wartime wage and salary payments may be approximated.

With full employment and an increase of somewhat more than 10 percent in wage rates, the volume of wage-salary income can be maintained at about the 1944 level. Full employment at current rates, however, will mean a drop of 11 billion dollars. "Medium" employment at current rates will mean a decline of 22 billion dollars. Low employment—about the 1939 level—would probably lead to a reduction of wage rates and, estimating this reduction at 10 percent, would result in a wage-salary income about 40 billion dollars below that attained in 1944.

Even with a modest decrease in the volume of wage-salary income, the level of living of most workers can be expected to improve in the postwar period. This will be because a greater part of the workers' income will be available for expenditure and because consumer goods will be more plentiful and of better quality. The total volume of consumer purchases will also increase if full employment is achieved, and even with medium employment can be expected to maintain a high level. Any drop in the volume of wage-salary payments, however, will probably be accompanied by a decline in national income.

Wages and Salaries as a Component of National Income

The importance of wages and salaries in the lives of individuals is more commonly appreciated than is the influence of aggregate wage-salary payments on the economy of the Nation. About nine-tenths of the adult population of the United States regard a wage or salary as their chief source of livelihood, but few understand the significance of such payments as the largest component of national income. Tax deductions from the pay envelope are commonly thought of only as an individual affliction and not as a major source of revenue for operating the Federal Government.

The influence of wage-salary income on the volume of business activity has received increasing emphasis among economists in recent years, however, and it is now rather generally agreed that, if current or higher prices continue, a high level of such income is a prerequisite to optimum production and full employment after the war. This is because of the importance of wages and salaries as the source of income that is required for the purchase of consumer goods and indirectly for the stimulation of capital outlay. The drastic curtailment of Government orders at the end of the war, unless offset by heavy and sustained buying by the consumer and by private business, will result in widespread closing of stores and factories and the loss of employment for millions of persons.

The volume of wage-salary payments in the postwar period will, of course, reflect a considerable variety of factors, including rates of pay, hours of work, the composition of the labor force, and the level and pattern of employment. To attain proper balance in combining such factors is undoubtedly one of the most complex and delicate problems that will be faced in the reconversion period. The purpose of the present article is not to urge the adoption of one policy or another with regard to these critical factors, but rather, as an aid in policy formulation, to evaluate their influence.

WARTIME TREND OF WAGE-SALARY INCOME

Before presenting the estimates of postwar wage-salary income that form the basis for this discussion, it will be helpful to review the recent trend of this segment of national income and to discuss the major economic considerations that presage future change. The wartime trend of wage and salary payments is reflected in table 1, which shows the major sources of wages and salaries from 1939 to 1944 inclusive. Several features of this summary table are of interest in connection with the present discussion, particularly the magnitude of the wartime increase in wage-salary income, the importance of war work in accounting for that increase, and the present dominant position of manufacturing industry.

Wage and salary income, exclusive of payments to members of the armed forces,¹ more than doubled between 1939 and 1944, and in the latter year achieved the unprecedented total of 98 billion dollars. This was almost two-thirds of the total national income in 1944, and

¹ Wage and salary income, as discussed in this article, excludes payments to military personnel but is otherwise interpreted broadly and includes all compensation to private individuals for their services as employees. The amounts referred to are gross earnings, before deductions for income taxes or social security taxes, and include perquisites, where found, as well as monetary payments. Including payments to members of the armed forces, the aggregate of all wage and salary income in 1944 was 113 billion dollars.

represented an average annual income of approximately \$2,310 per worker.² The greatest increase, it will be noted, came from 1940 to 1943; approximately full production was achieved by the latter year.

TABLE 1.—*Estimated Wage and Salary Income, by Source, 1939-44*¹

[In millions]

Source	1944 ²	1943	1942	1941	1940	1939
All sources.....	\$98, 131	\$92, 500	\$76, 204	\$59, 528	\$48, 050	\$43, 847
Manufacturing.....	42, 448	40, 796	30, 653	21, 503	15, 372	13, 189
Mining.....	2, 204	2, 039	1, 835	1, 600	1, 332	1, 178
Contract construction.....	2, 615	3, 670	4, 644	2, 753	1, 674	1, 550
Transportation and utilities.....	9, 787	8, 390	6, 961	5, 875	5, 167	4, 913
Trade.....	12, 498	11, 347	10, 452	9, 824	8, 404	7, 772
Finance, insurance and real estate.....	2, 948	2, 812	2, 648	2, 508	2, 324	2, 248
Service ³ and miscellaneous.....	10, 689	9, 407	8, 551	7, 624	6, 826	6, 402
Agriculture (hired hands).....	1, 631	1, 452	1, 177	900	752	738
Government ⁴	13, 311	12, 527	9, 283	6, 941	6, 199	5, 857

¹ Data are from U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce. Figures for 1939 to 1943, inclusive, are based on table 14, of National Income and National Product in 1943, in Survey of Current Business, April 1944. BFDC estimates of agricultural wages and salaries have been added, however, and payments to members of the armed forces excluded; the data for "government" for 1942 and 1943 have been revised. The 1944 data represent preliminary figures supplied by courtesy of the BFDC. Revisions of some of the estimates for the years 1939-43 appear in the June 1945 issue of the Survey of Current Business; these do not affect the conclusions reached in this article, however, and have not been taken into account.

² Preliminary.

³ Includes domestic service.

⁴ Excludes work-relief wages and all payments to the armed forces.

Manufacturing industry, which paid out about 43 percent of all wages and salaries in 1944, tripled its payments during the 5-year period and exceeded all other major sources in rate of increase. Individual manufacturing industries, to be sure, showed proportionately greater increases than the group as a whole, ranging to more than 30-fold in the transportation-equipment group, which produces primarily ships, aircraft, and tanks. Government ranked second among the major sources, with 14 percent of all wage-salary payments in 1944 and with an increase of more than 125 percent. The civilian personnel of the War and Navy Departments accounted for most of the increase. All of the major sources of wage-salary payments showed gains during the 5-year period, but the increase for the finance, insurance, and real-estate group was less than 25 percent. It will be noted that wages and salaries in contract construction reached their peak in 1942 and have subsequently declined.

Table 1 fails to bring out an additional development that may be readily established by examination of other material. Employment and hours, and hence total wage-salary income, increased more in the high-wage than in the low-wage industries. The existence of relatively high wage rates in the war industries at the outbreak of the war greatly facilitated recruitment for those industries and contributed substantially to the rise of aggregate wage-salary income.

Factors Expected to Affect Level of Wage-Salary Payments

Only a drastic change in the nature of our economy could have produced in the brief span of 5 years the prodigious increase in wage-salary payments reflected in table 1. With the end of the war,

² This figure represents the approximate average payment to workers employed regularly throughout the year and is computed by dividing aggregate wage-salary income by 42,400,000, the average number of civilians employed for wages and salaries in 1944. If divided among all the different individuals who were employed at any time during the year, wage and salary payments would yield a somewhat smaller average.

however, several of the factors underlying that increase have shown a tendency to reverse themselves. Even at this early stage of the postwar period it is possible to identify, and in some cases to evaluate, the major factors that will affect the volume of wage and salary payments.

Among the foreseeable economic developments of importance in the present discussion, four will probably tend to depress the level of wage-salary payments: (1) The reduction of the hours of work, (2) the resumption of a peacetime pattern of employment, (3) a drop in the rate of output of workers paid on an incentive basis, resulting from shorter runs of individual products, and (4) a decrease in the opportunities for pay supplements. Another probable change, which will tend to increase wage-salary payments, will be (5) an improvement in the quality of the labor force. Two other factors, of transcendent importance, but unpredictable, are (6) the level of employment, and (7) the level of wage rates. The relationship of each of these factors to the level of wage-salary income deserves brief discussion.³

Reduction of the workweek will mean not only fewer hours in pay status every week but also, in most cases, the loss of premium overtime payments. Millions of workers who put in a 48-hour week during the war have already reverted to a 40-hour week. This means a reduction of only one-sixth in hours of work but a decrease in weekly wages amounting to 23 percent. Hours of work in manufacturing industry averaged slightly more than 45 per week in 1944, but in the postwar period can be expected to fall to about 38.⁴ Comparable reductions will occur in many nonmanufacturing industries.

The transfer of workers from war production to the service trades and the manufacture of consumer goods implies a shift from high-wage to low-wage industries and from high-wage cities to low-wage cities and rural communities. No reduction of basic wage rates is assumed in this statement. The ex-aircraft assembler who is reemployed in a textile mill will suffer a decline in wages even though basic wage rates in both industries remain unchanged. Although some of the industries expected to flourish in peacetime pay wages comparable to those in the war industries, the great majority have considerably lower scales.⁵

Despite expected increases in the efficiency of labor, the output of incentive workers may decline for a time after the war, thereby reducing wage incomes. Any such decline in output will reflect the resumption of variety production for private consumers, necessitating shorter runs and more frequent changes of materials, equipment, and operations than in war production. Because only the minority of all workers are paid on an incentive basis and because the decline in output is not expected to be substantial, the influence of this development on wage-salary income will be relatively unimportant.⁶

The chief loss in the form of pay supplements after the war will be the disappearance of premium payments for late-shift work in certain

³ The influence of most of these factors during the transition from a peacetime to a war economy was discussed, with additional detail, in *Trends in Factory Wages, 1939-43*, in *Monthly Labor Review*, November 1943.

⁴ This assumes a 40-hour week with a deduction for labor turn-over, absenteeism, and similar factors.

⁵ For a comparison of wage rates in war and nonwar industries as of 1943, see *The Level of Factory Wages in Wartime*, in *Monthly Labor Review*, October 1943.

⁶ It is believed by some that the output of incentive workers will increase slightly in the postwar period, owing to liberalization of tolerances, etc. In any event, the net influence of this factor will probably be negligible. Possible reduction of the earnings of incentive workers through lowered output should not be confused with the reduction that may take place as a result of lower piece or bonus rates. In practice it is almost impossible to distinguish the influence of these two factors, since work units (in most incentive-wage industries) are in continual process of change, and subtle changes in the liberality of payment are virtually undetectable.

war industries. It is not assumed that existing rules regarding such premiums will be abrogated but only that reduction of the scale of operations in these industries will reduce the need for late-shift work.⁷

The labor force in the postwar period should include a larger proportion of experienced and skilled workers than does the present labor force; hence a somewhat higher proportion in the higher pay brackets. Many of the older workers now employed may be expected to retire, and many of the youngest workers to return to school. Large numbers of inexperienced women workers, some of them working at beginners' rates, will withdraw from the labor market. On the other hand, several million veterans will again seek employment, the majority of them in their most vigorous and productive years and many of them highly skilled.

More civilian workers will be available after the war than at present, but the trend of employment may be either upward or downward. With regard to this factor, however, there is virtually complete agreement as to a *goal* of full employment. It is possible, therefore, that legislation⁸ as well as economic factors may help to determine the employment level actually achieved.

The postwar level of wage rates is no more predictable than the postwar level of employment. Undoubtedly powerful forces will continue to exert upward pressure. Wage rates are already somewhat higher than they were in 1944, and union pressure for increases to offset high living costs and shorter hours of work is growing. Labor shortages—at least in some localities and for specialized workers—will stimulate competitive bidding by employers; some relaxation of wage stabilization has already been made, and more is inevitable.

It is primarily through higher wage rates, moreover, that increased labor productivity will affect wage-salary income. Although this article makes no attempt to estimate the gain in productivity that will occur in the postwar period, it is highly probable that this factor will permit an increase in wage rates—possibly a substantial increase—without a corresponding rise in prices.

Offsetting these upward pressures will be several important factors tending to depress wage rates. Cut-backs in war plants and any rapid demobilization of the armed forces will be sure to result in some unemployment, and, if this is severe and prolonged, general wage cuts will be hard to resist. With the return of competitive production for the civilian market, employers will watch their unit costs of production more closely. Aggressive union policy will be unable to protect large numbers of unorganized workers, while "down-grading" and disguised wage cuts for incentive workers will be difficult to control even in union establishments.

Alternative Estimates of Wage-Salary Income in Postwar Period

Fortunately, the influence of most of the factors expected to affect postwar wages and salaries can be predicted with some confidence. Thus, the reduction in wage-salary income that can be expected to result from the resumption of a shorter workweek, the decline of late-

⁷ The loss of premium payments in the war industries may be partly offset by increasing liberality in other directions; for example, in the provision of free lunches or other perquisites. It is doubtful, however, whether such gains will be sufficient to offset the reductions of shift premiums. It should be noted that employers' social-insurance contributions are not regarded as wage income as defined in this article.

⁸ The Murray Bill represents one proposal intended to assure a high level of employment through legislation.

shift work, and the transfer of workers from war to peacetime production may be estimated fairly reliably. Although the postwar trends of employment and wage rates are uncertain, it is possible, by making alternative assumptions, to indicate the general range within which these factors are likely to affect wage-salary income. Unquestionably these measurable factors will account for most of the change in aggregate wages and salaries and provide a basis for a series of meaningful postwar estimates.

METHOD OF ESTIMATION

The methods employed in preparing the following estimates are relatively simple and may be described briefly. The wage (or salary) rates assumed for the postwar period are the estimated average straight-time rates⁹ for the year 1944 or are based directly on such rates. With respect to most industries it is assumed that the 40-hour standard week will prevail in the postwar period, yielding an average actual workweek of 38 hours.¹⁰ In the case of certain other industries, chiefly nonmanufacturing, it is assumed that hours of work will be about the same as in the prewar period. For each industry (but with modification in the case of the exceptions just noted) the product of the average hourly rate times 38 (hours per week) times 52 (weeks per year) is used as a rough estimate of average annual earnings per worker.

Aggregate wage-salary payments for each industry were obtained by multiplying the average annual earnings per worker by the estimated average number of workers employed during the year. Since the resulting figures represent cash wages only, modest additions have been made in some industries to represent perquisites.¹¹

The employment estimates used have, of course, been of fundamental importance in arriving at the final estimates, and therefore justify brief special discussion.¹² In addition to the estimates for the base year 1944, three sets of postwar estimates have been prepared, representing "full," "medium," and "low"¹³ employment. These estimates are designed to represent conditions about 2 years after VJ-day—perhaps about 1947. The assumptions made regarding the size of the labor force, the amount of unemployment, and other conditions related to the respective estimates are given in table 2. The employment estimates for the postwar period make allowance for changes in the distribution of employment by industry as well as for changes in the total volume of employment.¹⁴

⁹ For the method used in converting average hourly earnings to average straight-time rates see Elimination of Overtime Payments From Gross Hourly Earnings, Monthly Labor Review, November 1942. In certain nonmanufacturing industries the elimination of overtime payments was accomplished by arbitrary adjustment, while in other cases no adjustment was deemed to be necessary. Premium payments for late-shift work have been removed on an estimated basis from the wage rates of those war industries in which late shifts are expected to disappear. The hourly and weekly earnings data issued by the Bureau's Division of Employment Statistics were used whenever available, but were roughly adjusted in some cases to take account of salaried workers. Other wage data were obtained from official sources wherever possible. All wage data represent amounts payable before deductions for income or social-security taxes or other items. No account has been taken of wage increases granted since 1944.

¹⁰ This assumption is justified on the basis of actual experience; the difference between standard hours and actual hours is accounted for largely by various types of absenteeism, labor turn-over, and similar factors. For special purposes, as noted below, the actual average hours prevailing in 1939 are used instead of a uniform 38-hour week.

¹¹ See also footnote 18, which describes adjustments made to reconcile industry group totals with the official estimates of the Department of Commerce.

¹² For these estimates of employment by industry the authors have relied heavily on the Bureau's Employment and Occupational Outlook Branch; additional adjustments have been made by the authors, however, in order to adapt the employment figures to the special purposes of this article.

¹³ The estimates for "low" employment assume about the same number employed as in 1939 and consequently do not represent the extreme depths of a serious depression.

¹⁴ By way of illustration, it is assumed that to attain full employment will require a particularly large expansion of the construction industry.

TABLE 2.—Assumed Size of Labor Force, Number Unemployed, and Other Features of Postwar Estimates ¹

(In millions)

Item	1944 actual employment	Postwar estimates		
		Full employment	Medium employment	Low employment
Total labor force.....	64.1	60.0	60.0	60.0
Armed forces.....	11.2	2.5	2.5	2.5
Total civilian labor force.....	52.9	57.5	57.5	57.5
Unemployed.....	.9	2.0	7.5	12.5
Employed.....	52.0	55.5	50.0	45.0
Self-employed (including farmers).....	9.6	10.0	10.0	10.0
Wage and salaried workers.....	42.4	45.5	40.0	35.0

¹ Because of duplications in the counts for the individual industries—representing workers appearing on two or more pay rolls in the same pay-roll period—the sums of the industry estimates of wage and salaried workers somewhat exceed the unduplicated counts appearing in the last line of this table. The excess for 1944 is 3.0 millions and those for the various postwar estimates are: Full employment, 2.7 millions; medium employment, 2.3 millions; low employment, 2.1 millions.

AUTOMATIC CHANGES IN WAGE-SALARY INCOME

Before taking up the more complex questions of postwar employment and wage rates, attention should be called to the three measurable factors, already mentioned, that will tend to reduce wage-salary income at the end of the war even if employment and wage rates remain unchanged. These are the reduction of hours of work, the interindustry shift of employment, and the elimination of shift differentials in certain war industries.

The most important of these factors is the reduction of weekly hours of work. It has been seen that resumption of the 40-hour week will reduce working hours in manufacturing by approximately 7 per week, on the average, and will mean substantial cuts in many nonmanufacturing industries and in government. Since much of this overtime is paid at rates of time and a half, the loss in wage income will be more than proportional. Assuming that employment and wage rates remain the same, the reduction of hours alone will reduce wage-salary income by about 13 billion dollars.¹⁵

Independent of changes in any other factors, the shift of employment away from the relatively high-paid war industries back to the lower-paid "consumer industries" would mean a loss of about 5.6 billion dollars in wage-salary income. This is a net figure, for some of the industries expected to expand in the postwar period (such as building construction) compare favorably with the war industries with respect to wages.

Premium pay for late-shift work appears to be firmly established as a feature of the wage structure in the United States and it is assumed that shift-premium payments in certain peacetime industries will be continued to about the same extent as at present. In some important war industries, however, notably the shipyards, aircraft factories, and the manufacture of machinery and electrical equip-

¹⁵ Compare with Department of Commerce estimate of 12 billion dollars for 1943. (Survey of Current Business, July 1944, p. 5). The difference between these two estimates is due in part to an actual increase in overtime payments between 1943 and 1944 and in part to differences in the assumptions regarding the amount of overtime or the prevalence of premium pay for certain industries. See also OPA release: Effect of Restoration of 1939 Hours and of Percentage Distribution and Total Volume of Employment on Salaries and Wages (August 1944).

ment, the drastically reduced scale of production will no longer require any substantial amount of late-shift work. It is estimated that shift premiums in the industries mentioned in 1944 amounted to about 450 million dollars and that the total loss of shift-premium payments in the postwar period will be about 0.5 billion dollars.

These amounts include, of course, some duplication. Most of the half-billion dollar loss in shift premiums and part of the 13-billion dollar loss in overtime work is accounted for by the reduction of employment in the war industries. Consequently, the combined effect of all three postwar changes—16.7 billion dollars—is less than the sum of the various components. The importance of this amount is emphasized, however, by pointing out that it means an average loss of nearly \$400 per worker per year. The separate and composite effects of these three automatic postwar changes are shown in table 3 by broad industry division. The substantial reduction of wage-salary income in manufacturing is evident.

TABLE 3.—*Estimated Effect of Specified Postwar Changes on Wage-Salary Income, by Broad Industry Division*

[In billions of dollars]

Industry division	Type of postwar change			
	Unduplicated total	Reduction of hours	Inter-industry shift of employment ¹	Reduction of extra shifts in war industries
Total.....	-16.7	-13.3	-5.6	-0.5
Manufacturing industry.....	-17.7	-8.1	-12.2	-1.6
Nonmanufacturing industry.....	+3.6	-3.5	+7.9	(?)
Government and other nonindustrial.....	-2.6	-1.7	-1.3	(?)

¹ Changes shown for individual divisions reflect shifts to or from other divisions as well as intradivisional shifts.

² Amount believed to be negligible.

WAGE-SALARY INCOME UNDER FULL EMPLOYMENT

The foregoing estimates indicate roughly the decrease in aggregate wage-salary income that could be expected to result if the economy of the United States were to revert to a peacetime basis with no change in the level of employment or in wage rates. Actually, however, the number in the civilian labor market will probably exceed the 1944 level by some 4 or 5 millions. Assuming a civilian labor force of 57.5 millions and allowing only for "frictional unemployment,"¹⁶ the number gainfully employed in the postwar period will be about 55.5 millions and the number working for wages or salaries will be about 10 millions less (45.5 millions). Under full employment, therefore, the number of wage and salary workers will exceed the 1944 level by about 3 millions. This increase in the number of workers will tend to offset the decreases resulting from other causes.

It is indicated by table 4, however, that if wage rates in the postwar period are about the same as in 1944 even full employment will be

¹⁶ Temporary unemployment involved in changing from one job to another, absence on vacation, seasonal lay-offs, etc.

insufficient to maintain the 1944 level of wage-salary income.¹⁷ Aggregate wages and salaries under such circumstances will amount to approximately 87 billion dollars, or about 11 billion dollars less than the 1944 total. Average income per worker may be expected to drop from \$2,310 per year to about \$1,920.

TABLE 4.—Estimated Aggregate Annual Wage-Salary Income¹ in 1944 and in Postwar Period, Assuming Continuation of 1944 Wage Rates, by Major Industry Group

[In millions]

Major industry group	1944 ²	Postwar period ³		
		Assuming full employment	Assuming medium employment	Assuming low employment
Total wage-salary income.....	\$98,131	\$87,441	\$75,992	\$64,574
Manufacturing, total.....	42,448	28,029	23,156	19,090
Salaried workers, total.....	9,537	7,479	6,561	5,092
Wage earners, total.....	32,911	20,550	16,595	13,998
Iron and steel.....	4,595	3,282	2,462	1,942
Electrical equipment.....	1,894	844	713	486
Machinery (except electrical).....	3,516	2,013	1,623	1,087
Transportation equipment (except automobiles).....	7,112	717	605	356
Automobiles.....	2,190	1,455	1,150	879
Nonferrous metals and their products.....	1,038	645	411	448
Lumber and timber basic products.....	784	998	787	636
Furniture and finished lumber products.....	667	726	571	507
Stone, clay, and glass products.....	688	736	556	498
Textile-mill products.....	1,801	1,905	1,576	1,510
Apparel and other finished textile products.....	1,283	1,490	1,236	1,137
Leather and leather products.....	553	669	545	514
Food and kindred products.....	1,965	1,549	1,485	1,365
Tobacco manufactures.....	132	136	109	118
Paper and allied products.....	653	617	522	419
Printing and publishing.....	1,777	797	671	677
Chemicals and allied products.....	1,422	752	555	516
Products of petroleum and coal.....	338	330	264	224
Rubber products.....	527	350	288	242
Miscellaneous industries.....	925	538	467	438
Nonmanufacturing, total.....	38,983	46,724	39,667	33,329
Mining.....	2,204	2,011	1,575	1,415
Contract construction.....	2,615	7,613	4,852	3,673
Transportation and public utilities.....	9,787	8,407	7,857	6,069
Trade.....	12,498	14,559	12,243	10,789
Finance, insurance, and real estate.....	2,948	3,415	3,312	2,807
Service (except domestic) and miscellaneous.....	8,931	10,721	9,827	8,576
Domestic service.....	1,758	1,964	2,357	2,160
Agriculture (hired hands).....	1,631	2,038	2,127	2,216
Government.....	13,311	8,685	8,685	7,779

¹ Excludes payments to members of the armed forces.

² The 1944 classification of establishments, like that for the postwar period, is based on peacetime production; e. g., wages and salaries shown for the automobile industry are those paid by establishments that were manufacturing automobiles in 1939.

³ See table 2 for an indication of the characteristics of "full," "medium," and "low" employment. Under full and medium employment it is assumed that the 40-hour week prevails, with actual hours of work averaging 38. Under low employment actual hours of work are assumed to be the same as the averages in 1939.

¹⁷ In preparing the distributions of wage-salary income presented in table 4 independent estimates were made in the Bureau of Labor Statistics, based on Bureau estimates of employment, wage rates, and average hours worked; the data presented for nonmanufacturing are summaries of more detailed figures appearing on the original work sheets. The estimates arrived at for 1944, however, differed somewhat from the official estimates of the Department of Commerce, in most cases being lower. In order to increase the usefulness of the material and to avoid confusion, therefore, the original estimates were adjusted so that the major division totals would equal those issued by the Department of Commerce. No attempt was made to reconcile the totals for manufacturing industry groups or for individual nonmanufacturing industries (not shown in table).

In manufacturing and in most of the other major divisions the amount of the adjustment was small and, for purposes of the present rough estimates, of no importance. In the case of contract construction and the service trades, however, the Department of Commerce estimates were considerably higher than estimates based on BLS figures, and substantial upward adjustments were necessary to tie in with the official estimates.

In order to maintain comparability, all adjustments applied to the data for 1944 have also been made in the estimates for the postwar period.

Further study reveals that different segments of the working force would be affected very differently under these conditions. Manufacturing industry would pay out about 14 billion dollars less in wages and salaries than in 1944, with the greater relative cut coming in wages. As would be expected, the greatest decrease is found in the metalworking industries, especially the manufacture of transportation equipment. Several of the industries manufacturing consumer goods, for example, textiles or apparel, would show modest increases. Government wages and salaries would drop substantially. Payments by nonmanufacturing industry, however, would increase by about 8 billion dollars, with most of this increase in the construction industry.

These estimates, as has been noted, are based on the assumption of a continuation of 1944 wage rates. Wage rates are already somewhat higher than in 1944, however, and it is possible that Federal policy may permit and economic factors bring about a continued rise in the future. Under such circumstances full employment would result in higher wage-salary income than is indicated in table 4. By way of illustration, wage rates 10 percent higher¹⁸ than those prevailing in 1944 would yield an annual wage-salary income of about 96 billion dollars; a somewhat greater increase in wage rates would be necessary to maintain the 1944 level of wage-salary payments.

MEDIUM OR LOW EMPLOYMENT

Failure to achieve full employment will seriously reduce the aggregate payments for wages and salaries. Certain conservative estimates have set the probable level of postwar employment at about 50 million workers, which would mean about 40 million persons working for wages and salaries. Employment at this level, however, would yield wage-salary payments of only about 76 billion dollars, or 22 billion dollars less than the 1944 level. Both manufacturing and nonmanufacturing industries would pay out less than under full employment, construction being particularly affected. Total wage-salary payments in nonmanufacturing would still be at about the same level as in 1944, however, while payments by manufacturing and government would be much lower. Even a 10-percent general increase in wage rates under medium employment would yield aggregate wages and salaries totaling only 84 billion dollars.

"Low employment," as has been mentioned, is here defined to mean about the level of employment that prevailed in 1939. The distribution of employees by industry is also patterned largely on 1939 employment, and 1939 average hours of work have been used. Under conditions of low employment about 12.5 million people would be out of work and looking for jobs. With low employment and 1944 wage rates, every industry group could be expected to pay out less in wages and salaries than in 1944, with the exception of construction, domestic service, and agriculture. These occupations, of course, were abnormally depressed in 1944 because of shortages of materials or labor. Total wage-salary income would amount to only 65 billion dollars, or about 34 billion dollars less than the comparable amount for 1944.

¹⁸ This means, of course, a *net* increase of 10 percent in the level of wage rates and assumes that any downgrading or hidden decreases would be offset by additional wage increases. The example used is intended solely to illustrate the influence of wage-rate changes on the volume of wage-salary payments and is not intended to recommend any particular postwar wage policy.

With 12.5 million unemployed, however, it is probably not realistic to assume that 1944 wage rates would be maintained. A drop of 10 percent in the level of wage rates would cut total wage-salary income to 58 billion dollars.

Table 5 summarizes, by broad economic division, the increase or decrease in postwar wage-salary income, as compared with 1944 income, that results from various assumptions regarding the level of employment and of wage rates.

TABLE 5.—*Alternative Estimates of Change in Postwar Wage-Salary Income as Compared With 1944 Level, by Broad Division*¹

Assumptions on which postwar estimates are based ²			Increase or decrease compared with 1944 (in billions of dollars)			
Level of employment	Level of wage rates	Standard hours of work	Total	Manufacturing	Nonmanufacturing	Government and other nonindustrial
Full	As in 1944	40	-10.7	-14.4	+7.7	-4.0
Full	10 percent above 1944	40	-1.9	-11.6	+12.4	-2.7
Medium	As in 1944	40	-22.1	-19.3	+1.7	-3.5
Medium	10 percent above 1944	40	-14.5	-17.0	+4.7	-2.2
Low	As in 1944	As in 1939	-33.6	-23.4	-5.7	-4.5
Low	10 percent below 1944	As in 1939	-40.0	-25.2	-9.0	-5.8

¹ All estimates exclude payments to members of the armed forces.

² Postwar estimates also assume a distribution of employment by industry consistent with peacetime production, and the termination of extra shifts at premium pay in certain war industries.

Wages, Welfare, Markets, and National Income

It seems clear from these estimates that the current (1944) volume of wage and salary income can be maintained after the war only under conditions of full employment and a substantial increase in the level of wage rates. With anything less than full employment, the volume of wage-salary payments will decline; a level of employment comparable to that of the prewar year 1939 might result in a drop of roughly 40 billion dollars, or about 40 percent.

The achievement of full employment, however, will require a level of production far beyond any level previously attained in peacetime.¹⁹ A continuing advance of wage rates in the early postwar period will also, as has been seen, face serious obstacles. The maintenance of wage-salary income at 1944 levels, therefore, cannot be lightly taken for granted. With a national effort less determined or less skillfully directed than that of wartime, the actual volume of such income may fall considerably short of current levels.

WAGE-SALARY INCOME AND LEVELS OF LIVING

Even with a substantial decrease in total wage-salary income, to be sure, the level of living of many American workers may improve in the postwar period. Shorter hours of work will add to the workers' well-being and will eliminate many sacrifices and hidden costs that are associated with wartime living. Consumer goods will become more

¹⁹ This is the conclusion of Hagen and Kirkpatrick in *The National Output at Full Employment*, in *American Economic Review*, September 1944. See also *National Budgets for Full Employment* (National Planning Association Pamphlets Nos. 43-44), and John H. G. Pierson: *Fiscal Policy For Full Employment* (N. P. A. Pamphlet No. 45).

plentiful, and these goods will be of better quality. Moreover, reduction of income taxes, discontinuance of bond deductions and, perhaps, liquidation of accumulated savings will enable the worker to spend considerably more at a given level of personal income.²⁰ It is sobering to reflect, however, that such gains imply dwindling savings and a consequent narrowing of security margins. If full employment is not attained, moreover, the improved lot of the "average person" will bring little comfort to the unemployed worker.

AGGREGATE PURCHASES OF CONSUMER GOODS

Wages and salaries are not, of course, the only source of consumer purchases, but they are by far the major source. Ordinarily a drop in wage and salary income would have an adverse effect on the postwar market for goods and services. The offsetting factors mentioned above as influencing the expenditures of individuals, however, will also be important with respect to the aggregate expenditures of all workers. A constant or lower level of wage-salary income in the postwar period, therefore, will not be inconsistent with an increase in aggregate consumer outlays.

The relationship between wage-salary income and consumer expenditures is somewhat more complicated with respect to the economy as a whole than it is in the experience of an individual, and justifies brief elaboration. On the one hand, the decrease in wage-salary income will be aggravated by a simultaneous drop in payments to the armed forces. Reduction of these forces from 11.2 million in 1944 to 2.5 million would reduce these payments by more than 11 billion dollars annually. The full effect of this reduction would not fall directly on our domestic economy, since part of these funds during wartime have been spent abroad. It seems safe to estimate, however, that the income of the armed forces available for expenditure at home will decrease by at least 7 billion dollars. Contributions to dependents of military personnel will also fall, but this change will be partly offset by an increase in pensions and similar items, and has not been evaluated.

Tax deductions, however, absorbed about 11 billion dollars of wage-salary income in 1944. Some reduction in tax payments will occur as the annual incomes of workers' families decline, and even greater reductions may be anticipated if tax rates and exemptions are liberalized. Perhaps 3 or 4 billion dollars of income per year can thus be made available for consumer expenditures during the postwar period.

Savings out of wage-salary income probably exceeded 15 billion dollars in 1944. It seems clear that no such annual sum will be saved in the early postwar period. Decreases in per capita income, increases in the supplies of civilian goods for sale, and the cessation of war-bond drives all will operate to reduce the savings made out of income. Although the effect of these factors on aggregate annual savings is very uncertain, it is not unlikely that they will be cut by somewhat more than half, thereby making available for current expenditure an additional 8 billion dollars or more.

Allowing for a reduction of 8 billion dollars in (wage-salary) savings and taking account of the additional factors mentioned above, it

²⁰ See N. Arnold Tolles: *Spensible Earnings of Factory Workers, 1941-43*, in *Monthly Labor Review*, March 1944.

seems probable that full employment and a 10-percent increase in wage rates should permit a modest increase in the volume of consumer expenditures.²¹ If net savings were reduced to zero, expenditures could increase substantially, even if wage-salary payments declined somewhat. Heavy liquidation of war bonds could conceivably result in negative savings of 10 billion dollars or more²² per year and a further increase in the volume of consumer expenditures.

WAGES AND NATIONAL INCOME

The relationship between wage-salary payments and total national income is by no means direct, but is influenced by a great variety of social, psychological, economic, and political forces. A detailed discussion of such forces in this article would be inappropriate and fruitless, and will not be attempted. Historically, however, the share of national income going to wages and salaries has been rather stable, making it possible to estimate within broad limits the level of national income that will be associated with a given volume of wage-salary payments.

Except for the abnormal years of deep depression and war, wages and salaries during the past quarter century have ranged around 60 percent of total national income. It may be that a somewhat larger share—say 65 percent—will be necessary to facilitate maintenance of full employment in the future.²³ Both of these ratios are subject to a considerable margin of error but they should be of value in indicating the general range of our national income under various assumptions as to the level of wage-salary payments.

Using these two percentages and assuming a wage-salary income of 96 billion dollars—the amount that might be achieved under full employment and with a 10-percent increase in wage rates—it is suggested that national income would be in the neighborhood of 150 to 160 billion dollars, still somewhat below the 1944 level of 160.7 billion dollars.²⁴ Increased productivity of labor, lower profit margins, or other factors, however, may permit a greater increase in wage rates in the postwar period, consistent with a higher national income at current price levels.

It has been pointed out that with any considerable amount of unemployment the volume of wage-salary payments would decline; under such circumstances, and assuming no change in price levels, a lower national income should also be expected. With the wage-salary aggregate that would be realized under conditions of "medium" employment and 1944 wage rates national income might approximate 115 to 125 billion dollars, while with low employment and 1944 wage rates national income might fall to 100 billion dollars or slightly more. A national income in this range, caused in part by wartime price rises, would exceed the level of any earlier peacetime year; it would fall far short of our actual accomplishment in 1944, however, and seems unacceptable as a goal for the American people.

²¹ This discussion has taken account only of wages and salaries and closely related items. Obviously entrepreneurial income, social-security benefits, and other income or savings of individuals will also affect the volume of consumer purchases.

²² Such liquidation, however, would be unlikely except under conditions of serious unemployment.

²³ Historically, the share of national income going to wages and salaries has tended to rise during depressions and decline during prosperity, but it seems unrealistic to assume that a lasting prosperity can be achieved with a smaller percentage of the national income going to labor.

²⁴ Department of Commerce preliminary estimate for 1944.